

Business Model Innovations in SMEs in a High Uncertainty: The Role of CEO's Values

Polina Artamoshina

Higher School of Economics, National Research University
Department of Management, Russian Federation

Galina Shirokova

Higher School of Economics, National Research University
Department of Management, Russian Federation

Virginia Bodolica

School of Business Administration, American University of Sharjah
Department of Management, United Arab Emirates

This research has been conducted with financial support from the Russian Science Foundation [project No. 19-18-00081-P].



Research motivation

- **Business model innovations (BMI)** in small and medium-sized enterprises (SMEs) represent an essential requirement that enables them to not only survive, but also attain superior outcomes in adverse conditions (Breier et al., 2021; Clauss et al., 2021). Yet, a firm's competencies are **a direct reflection of the abilities, behavior and values of its CEO**, whose perceptions and cognitive filters can both encourage and inhibit change in the organization (Hambrick & Mason, 1984).
- **Values** are the transsituational desirable abstract goals that motivate personal actions and serve as the guiding principles in decision-making process including judgement on personal or others behavior (Roccas et al., 2002).
- When people interpret their behavior, including the decisions made, they typically **refer to their personal values** rather than specific behavioral characteristics (Roccas et al., 2002).
- To date, there is several empirical evidence that the values of the **CEO play an important role in creating innovation** in the company in different forms and at different levels (e.g., Berson et al., 2008; Cáceres-Carrasco et al., 2020; Camelo-Ordaz et al., 2012; Hoang et al., 2021; Mohd et al., 2015; Sánchez-Báez et al., 2018; Zheng et al., 2020). In all cases, **values are the "starting point"** or the main implicit goal that the CEO strive to achieve through organizational changes and innovations.
- The ambiguous findings remain confusion in understanding: *how do personal values influence the decision-making process of CEO and in particular the decision to innovate the business model of the firm?*



Research question

- *How do personal values of CEO relate to the BMI in SMEs in a highly uncertain environment?*

Main constructs

- We view the BMI as the change of elements proposed in (Spieth & Schneider, 2016): value offering, value architecture and revenue model.
- Value offering consists of customers, positioning on the market, service, or product offering
- Value architecture implies methods of reaching the customers, core competencies and resources of a firm, external and internal activities that are used for creating value
- Revenue model consists of the ways a firm makes money and what are the sources of it, along with the structure of costs and prime drivers of it.



Method

- We apply the multiple-case study research strategy, which is the most suitable for examination of complex phenomenon in the real-time context, and those research areas that have little or conflicting empirical evidence (Eisenhardt, 2021)
- Interviews with the CEOs of 22 small and medium-sized companies were collected during a larger project about the strategies and behavior of entrepreneurs and firms during the COVID-19 period. Following the theoretical sampling we selected 10 cases out of 22 collected in total for the theoretical saturation (Eisenhardt, 2021) and demonstrate only those firms that have undertaken BM changes during the pandemic.

Firm code	Product/service description	Industry	Year of founding	Data sources	Revenue changes (1 st wave)	Revenue changes (2 nd wave)
A	Production and Development of resources accounting systems	Production and Development of resources accounting systems	1998	Interviews, Personal social networks, Companies' webpage and social networks, business news, financial data	Loss 40%	Increase 10%
B	Production of cookies and gingerbread	Production	2000	Interviews, Personal social networks, Companies' webpage and social networks, business news, financial data	Loss 15%	Less losses
C	Engineering and production of control cabinets	Automation	2015	Interviews, Companies' webpage and social networks, financial data	50% loss	Less losses
D	Marketing in social media	Marketing	2010	Interviews, Personal social networks, Companies' webpage and social networks, financial data	Loss	Loss
E	Production of 3D printers and photopolymers for 3D printing	3D printer's production	2014	Interviews, Companies' webpage and social networks, financial data	Loss	Less losses
F	Real Estate and Legal services	Real Estate and Legal services	1994	Interviews, Companies' webpage and social networks, financial data	30% increase	50% increase
G	Retail tea stores	Retail trade	2002	Interviews, Companies' webpage and social networks, financial data	Loss 86%	Less losses
H	Chain of restaurants	Catering	2010	Interviews, Companies' webpage and social networks, financial data	67% loss	Loss
I	Real Estate Development	Real Estate	2015	Interviews, Companies' webpage and social networks, financial data	Increase	Increase
J	Gift certificate for a night stay at the hotel with an open date	Gift, travel	2018	Interviews, Companies' webpage and social networks, financial data	90% loss first, then 70-75%	Increase

Method

- Coding procedure is based on the first- and second-ordering (Gioia et al. 2010)

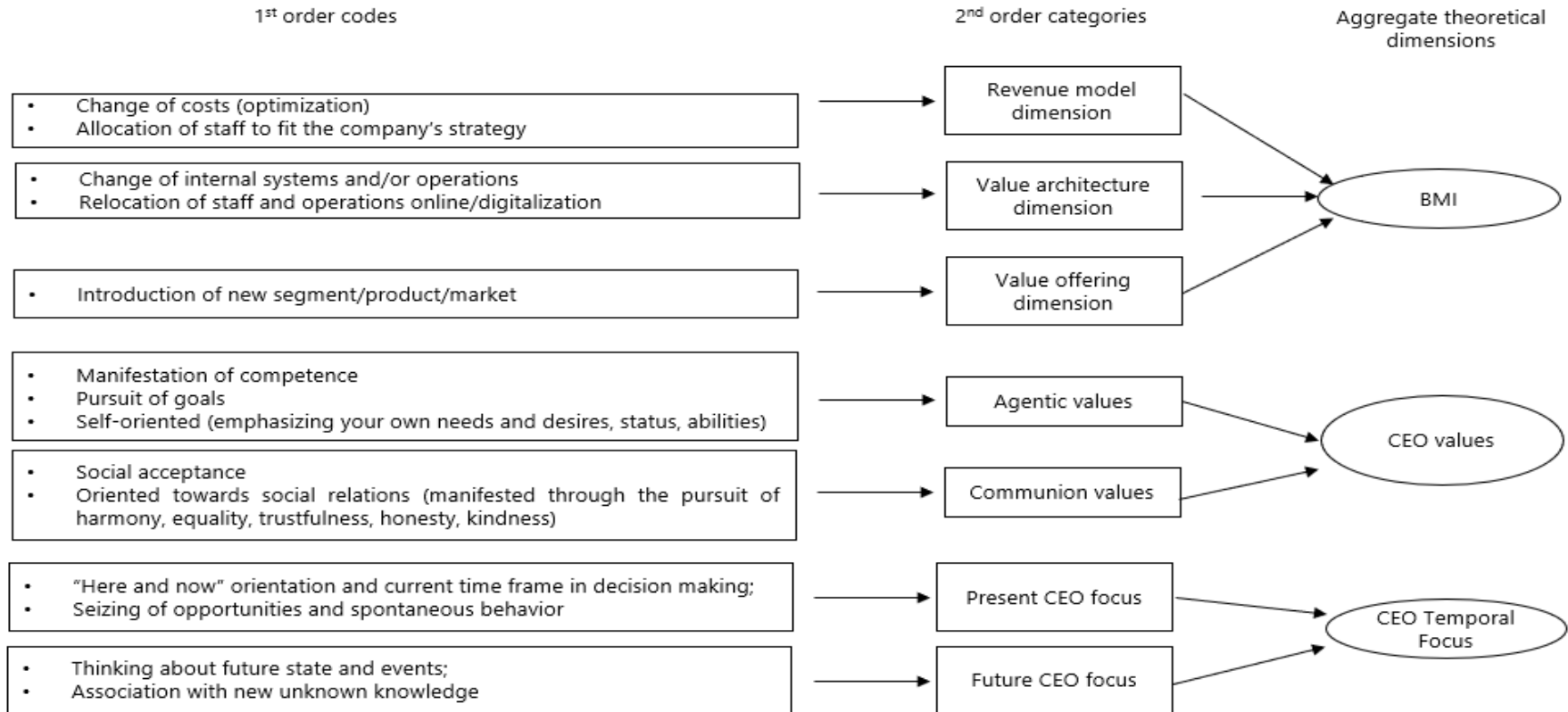


Figure 1. Data structure



Results. Examples of first- and second-order codes

Theoretical dimensions	Examples of codes	Examples of quotes
BMI	<p>Revenue model dimension (change of costs; allocation of staff to fit the company's strategy)</p> <p>Value architecture innovation (Change of internal systems and/or operations; Relocation of staff and operations online/digitalization)</p> <p>Value offering innovation (Introduction of new segment/product/market)</p>	<p>"This is not critical for the company's business, because in February-March we have already restructured our budget and adopted a strategy to repay all loans" (CEO of A, 2nd interview wave). "80% switched to project-type work in the agency" (CEO personal social networks D).</p> <p>"Therefore, firstly, we have increased the staff of our managers two and a half times in a month and a half. And secondly, we decided that we need to integrate with third-party services to automate the booking process" (CEO of J, 2nd interview wave). "Secondly, we began to use some remote tools more. If earlier meetings, transactions, they were offline, now there are more and more tools... they are already moving online." (CEO of F, 2nd interview wave).</p> <p>"In July, we decided to change the format of our business quickly enough... And we decided to use what we have, these are, accordingly, the technologies that we have developed. To start producing products, we started looking for "golden products" (CEO of E, 2nd interview wave).</p>
CEO values	<p>Agentic values (manifestation of competence; pursuing goals; self-orientation)</p> <p>Communion values (Social acceptance; Oriented towards social relations)</p>	<p>"«C» is the best company producing the control cabinets for various tasks" (Company's website C). "I am a person who does and burns with what he/she does. I create sustainable products and processes that cope with the challenges of time. Communities, podcasts, companies, and networks" (CEO personal social networks D).</p> <p>"Our success is due to our ability to form fruitful cooperation with customers, suppliers, competitors and society as a whole based on mutual respect..." (Company's website A). "What can we say: we are a small team of like-minded people; we keep our obligations to everyone and everything in general..." (CEO of I, 2nd interview wave).</p>
CEO temporal focus	<p>Present CEO temporal focus ("Here and now" orientation and current time frame in decision making; Seizing of opportunities)</p> <p>Future CEO temporal focus (Caring about future events and state; Focus on the future development and target; Focus on unknown situation, lack of information and predictability)</p>	<p>"When the first wave began, the task was to hold on, to keep the company, to keep the market, to keep the management, because we have a system that has been working for many years, distribution, and sales..." (CEO of B, 2nd interview wave). "Before the pandemic, we focused on the territorial coverage of the market, the development of service centers... The next year is focused on creating a product line. We have chosen a product strategy for ourselves. In the classical sense, we will develop products and online services of all types" (CEO of A, 2nd interview wave).</p> <p>"Our sustainable solutions – your stable results" (Company's website D). "Well, the strategy, in fact, has not changed since our last conversation, that is, we are moving towards technologically complex products, using software, some of our own developments in industrial automation. We have a goal to go there [technological complex products], and we are slowly going there. This is a rather long process, but let's hope that the first fruits should appear at the beginning of next year, at the signing of the contract" (CEO of C, 2nd interview wave). "Our business is built on experiment: if we build our work in such a way that every experiment ends unsuccessfully and will be punished for it [lack of success], then there will be no experiments, this will kill the principle of carpet bombing of research that I told you about" (CEO of E, 2nd interview wave).</p>

Results

- We found out that CEOs **inclined to communion values innovated the value architecture and revenue model** dimensions of the business model; CEOs **focused on agentic values** experimented with the product and services offerings of their firms, positioning in the market and distribution chains, that is, **value offering dimension** and partially **revenue model dimension**; at the same time, CEOs **balancing between agentic and communion values** engaged in **simultaneous updating** of several elements of the business model
- Temporal focus **presents the invisible boundaries** within which a CEO chooses **the most relevant options and makes decisions** based on temporal orientation to future, present and past time periods. In combination with values as trans-situational goals in life based on which CEO evaluates and filters information flows for decision-making, temporal focus allows to narrow the range of available pre-filtered information flows and undertake the decision focused situated in a relevant time frame. In other words, CEOs with certain types of values and prioritization of events and behavioral patterns in a certain way focus their attention **on solving problems in a specific time relevant to them** (Shipp et al., 2009).

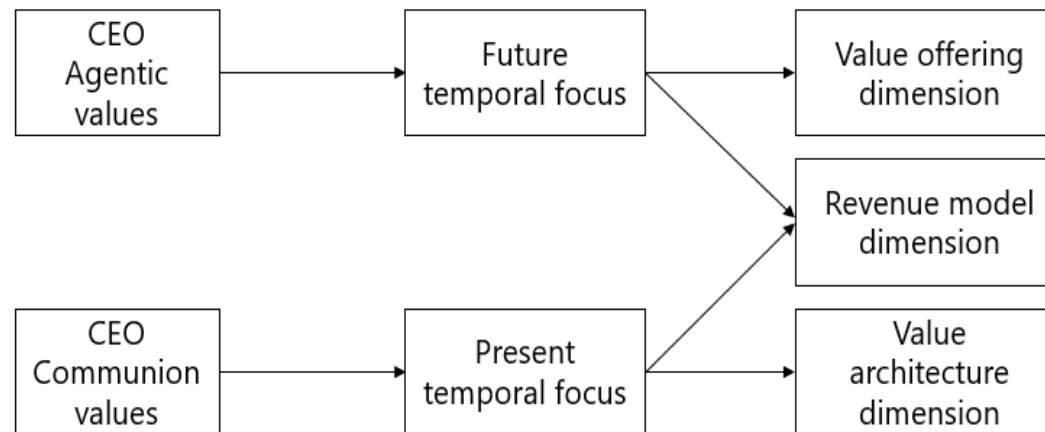


Figure 2. Theoretical model

DISCUSSION

- According to **the attention-based view**, any changes within and the behavior of a firm in the market can be explained as the **aggregation of CEOs actions and their focus of attention**, which depend on the surrounding context in a certain period of time (Andrews et al., 2022).
- In a situation of high uncertainty, any information flow entering the firm is filtered by CEOs with different cognitive schemes, prioritization and goals, leading to different actions being taken. In other words, CEOs begin to act intuitively prioritizing those actions that meet their values as conditionally achievable goals and guidelines adjusted for the specifics of the industry and the context in which CEOs are located.
- **Values** become **the main filter and guideline of decision making** available in the current conditions and determine the temporal focus of the CEO. **Temporal focus**, in turn, **regulates the choice between a type of innovation** in the internal structures of the firm or its strategy in the market and, if possible, the complete preservation or restoration of resources and internal structures of the firm as it was in the pre-highly-uncertain period (Nadkarni & Chen, 2014).



Theoretical and practical implications

- We contribute to entrepreneurship literature at least in three ways:
 - First, we address Foss and Saebi's (2017) call **on individual-level antecedents of BMI** by adding evidence about the role of CEO personal values. There is a bulk of research that demonstrates the importance of personality traits in the development of firm innovations and innovations in business models (Bhatti et al., 2021; Fu et al., 2020; Marcati et al., 2008; Snihur & Zott, 2020; Sosna et al., 2010). Our results expand this list by revealing the relationship **between personal values and the development of BMI**.
 - Second, we enhance the understanding of how **the business model of SMEs is changing in the context of high uncertainty**, which is represented by COVID-19. This type of highly uncertain conditions is not only sudden and unpredictable, but also affects most areas of business operation and institutional development (Clauss et al., 2022; Ritter & Pedersen, 2020).
 - Third, we complement the topic of **the multilevel research in the field of managerial distributed attention and its effects** on the firm-level outcomes by identifying the temporal focus mechanism which translates the communion and agentic values of CEOs into a particular BMI dimension (Brielmaier & Friesl, 2022).
- From the point of view of significance for practitioners, our research can be used to analyze the management decision-making process in the context of SMEs. Internal firm-level analysis of information sources, as well as their prioritization and methods of analysis by the CEO, can be suitable for adjustment and balancing decision-making processes towards increase in efficiency.



Limitations and future research

- The external validity of a study is **limited to the specific context of BMI in SMEs**. Our main goal was to show how personal values can influence the development of BMI in SMEs, which is confirmed by our results and a thorough research design that includes data collection from different sources, triangulation, different coding techniques, sampling and conducting interviews during two waves of the COVID-19 pandemic.
- In addition, we were based on the procedure of **theoretical selection** (Eisenhardt & Graebner, 2007) of cases **to ensure the completeness of the examination** of this phenomenon and bias minimization in data collection and interpretation. However, the range of industries of our firms is limited and does not display all possible options, which can also be considered as a limitation.
- **Personal values** as phenomena in the literature **are controversial**, especially in the issue of manifestation stability. We adhere to the position of Roccas et al. (2002) **that values are more stable and easier to identify than emotional reactions and behavior, especially in highly uncertain conditions**. To obtain more accurate results, **quantitative data** are needed for a **longitudinal study**, which may be an excellent opportunity for future research.
- Additionally, the influence of personal values on BMI in terms of firm performance for a more diversified sample of data may constitute a fruitful avenue for further inquiry.



Thank you for your attention!



Business Model Innovations in SMEs in a High Uncertainty: The Role of CEO's Values

Polina Artamoshina

Higher School of Economics, National Research University
Department of Management, Russian Federation

Galina Shirokova

Higher School of Economics, National Research University
Department of Management, Russian Federation

Virginia Bodolica

School of Business Administration, American University of Sharjah
Department of Management, United Arab Emirates

This research has been conducted with financial support from the Russian Science Foundation [project No. 19-18-00081-P].

