

RESPONSIBLE:

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Please note: Where this study includes references to persons in the masculine, these apply equally to persons of any gender.

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FOREWORD

nspired by conversations with representatives of business families - as well as the external top management of family businesses and our general observations of professional practice - we decided in 2016 to launch a digitalisation initiative at WIFU. This initiative included components such as the implementation of a "working group on digitalisation in family businesses"; the regular organisation of events to promote communication between different actors (e.g., the WIFU panel for family businesses, and our symposium "Digitalisation in Family Businesses" organised in collaboration with PricewaterhouseCoopers (PwC) GmbH); and the establishment of a WIFU Chair for Corporate Entrepreneurship & Digitalisation in Family Businesses. These activities have already enabled us to gain considerable knowledge.1

During intensive discussions, we quickly realised that the success of the digitalisation dynamic in a family business depends to a large extent on the sentiments within the business family or, rather, within the circle of decision-makers among the owners.²

A separate research study was needed to examine precisely which determinants influence the dynamics

of digitalisation in this context, and which aspects are more, less, or hardly relevant. Therefore, in the summer of 2019, WIFU distributed a questionnaire on this issue to the WIFU Foundation's network of more than 300 representatives of family businesses and business families.

The results of our survey are surprising: they show that the "digital maturity" of a family has a significant impact on the dynamics of digitalisation and that it is possible to identify the specific family determinants that drive the business. Moreover, the Covid-19 pandemic has accelerated digitalisation processes.

We trust that the findings of this study will help members of business families and family businesses to understand their digitalisation efforts and overcome potential challenges. If the outcomes of this research help to achieve this goal, our aspirations for this study will have been fulfilled.

Witten, July 2023

Tom A. Rüsen, Anne K. Heider, Marcel Hülsbeck, Ruth Orenstrat

¹ See, inter alia, open-access publications at our virtual WIFU-library: https://www.wifu.de/wifu-bibliothek/.

² See also, inter alia, Rüsen et al. (2019), Bretschneider et al. (2020, 2019), Heider et al. (2020b), Rüsen & Heider (2020), Rüsen (2021).

1 | OUR KEY RESULTS AT A GLANCE

- Product digitalisation, process digitalisation and the digital transformation of the business model are three fundamentally different elements that are given different levels of importance. Thus, they need to be addressed as different priorities: process digitalisation is given the highest priority (53%), followed by the digital transformation of the business model (26%) and product digitalisation (22%).
- "Digital readiness", which describes the level of competence among members of the business family, positively influences the digitalisation of processes and products. However, it does *not* influence the digital transformation of the business model.
- In contrast, "digital openness", which describes the owners' attitudes towards digitalisation, positively influences the digital transformation of the business model.
- The **mental model** of the business family has a negligible effect on the digitalisation efforts of the family business although, within the framework of the **controlling family**, we may see a preference for product digitalisation over other digitalisation activities.
- The **long-term focus of the business family** (as measured by identification, social relations, emotional attachment and aspirations of family members in different generations) has a positive effect on the digitalisation of processes and business models but does not influence the digitalisation of products.
- The emotional attachment of family members to the business and dependence on stakeholders (customers, suppliers, etc.) negatively affect the digital transformation of the business model.

- Interestingly, 52% of respondents consider themselves to be better or much better situated than their competitors when it comes to process digitalisation, followed by 41% when it comes to product digitalisation and 35% for business model digitalisation.
- The digitalisation of the family business is considered "an executive matter": in 35% of the participating family businesses, it is the responsibility of the CEO and in 26% that of the management as a whole. In contrast, salaried Chief Digital Officers (CDOs) and Chief Innovation Officers (ClOs) play only a minor part, taking responsibility for digitalisation processes in just under 10% of family businesses.
- The **digitalisation process** is supported equally by digital expert teams (18%) and by members of the business family (9%) or shareholders (9%).
- The digitalisation of family businesses is carried out with the **support of external stakeholders**. Customers and suppliers play the most important role (66%), followed by technology providers (42%) and universities and research institutes (35%). In contrast, start-ups (24%), management consultants (21%) and competitors (15%) play only a minor role.

2 | THE BUSINESS FAMILY AND ITS IMPORTANCE FOR THE DIGITALISATION PROCESS OF THE FAMILY BUSINESS

ven before the Covid-19 pandemic, our team at WIFU had been addressing the drivers of digitalisation for family businesses. Observations of professional practice over the past 18 months reveal that the Covid-19 pandemic has considerably intensified the pressure to digitalise businesses. Lockdowns - and the new forms of communication and internal service provision prompted by the pandemic - have exposed and tested the "digital maturity" of the family business and the business family. It has been shown that businesses and circles of owners with advanced digital maturity are better prepared than those at the very beginning of their digitalisation process. Given an advanced degree of maturity, businesses were able to react more quickly and more flexibly to malfunctions in communication between employees, customers and suppliers. The experience gained during the Covid-19 pandemic demonstrated visibly that the digitalisation of the family business is inevitable.3 However, the level at which it is implemented - whether in the product or the service offered, in internal service processes or in relation to the business model of the family business - may be very different and specific. Looking ahead, it is safe to say that crisis resistance and resilience will depend crucially on the degree of digitalisation achieved.

Hence, digitalisation must be reframed as a "lubricant for future designs". This study aims to offer a more comprehensive understanding of the specific factors of the business family that determine the digitalisation dynamics of the family business. Essentially, the parameters of a family business "family factor" will be examined. Against this background, the digital maturity of the business family is of particular importance.

Within this process, digitalisation is understood as the use of technologies that will support the family business to develop more efficient processes, create more customer-oriented products and services or adapt the business model to new customer needs.⁴ The resulting changes in value-added processes, products and services – and the delegation of decisions and activities to autonomous computer-controlled processes and formats – sometimes lead to dramatic changes in working methods and processes. Thus, digitalised products and processes represent the starting point for the business's digital transformation.

Although this can result in far more efficient work processes, the employees and members of the top management and shareholder circle tend to be sceptical about the need for change processes and may even fear the changes involved.

In all types of business, exogenous influences on the business environment (the market, competition, societal framework conditions) and endogenous factors in the internal handling of change are both critical for the success of the business. Whether – and how – a positive or negative attitude in the family business's family affects digitalisation dynamics specifically should now be examined in detail within the framework of this study.

The particular "family factor" ⁶ of a business family may be considered a significant determining factor in its digitalisation dynamics. ⁷ More precisely, this factor can be described as the sum of individual opinions and attitudes about digitalisation, as well as the forms of competency acquisition respectively practised within the business family and its representatives or super-

³ See Astrachan et al. (2020), Clauß & Breier (2020).

⁴ For more details, see Bretschneider et al. (2020).

⁵ See Bretschneider et al. (2020, 2019).

⁶ See Mühlenbach (2004), Habbershon & Williams (1999).

Individual academic insights about family-specific influences on the digitalisation process of family businesses already exist, such as those by Soluk (2018) or Soluk & Kammerlander (2021).

vising bodies. Finally, it is the business family that decides on the form, quantity and quality of the discussion, as well as the resources allocated to the topic of digitalisation and the degree of transformative efforts ultimately applied in their own business.⁸

However, our previous experience with representatives of this particular type of family and business has shown that there is often no single attitude towards digitalisation within a business family. There are many different approaches and views among the members of a family business, depending on their age, level of education and openness to the subject. Often, representatives of the senior and junior generations or managing and non-managing shareholders are irreconcilably opposed in their perspectives on the issue and the more or less radical measures needed. In particular, the willingness to invest in the context of digitalisation strategies can be a frequent starting point for extensive discussions among family mem-

bers, which – depending on how they end – can have an enormous influence on the digitalisation dynamics of the family business. Even if a digitalisation strategy is eventually defined and adopted, much depends on the extent to which organisational, structural and personnel changes can be implemented and whether any fundamental changes that may be needed are accepted.

This study aims to measure the influence of the business family on the digitalisation dynamics of the family business across different dimensions. To this end, general attitudes and typical roles will be presented and evaluated based on their effectiveness. As our data were collected before the Covid-19 pandemic, it is impossible to account for any effect that may have resulted from the apparent "forced digitalisation". Where applicable, previous WIFU findings on digitalisation and the handling of the Covid-19 pandemic are included.9



⁸ See Rüsen et al. (2019).

⁹ See Rüsen et al. (2019); Rüsen & Heider (2018); Bretschneider et al. (2020, 2019); Heider et al. (2020b), Astrachan et al. (2020), Clauß & Breier (2020).

3 | CONCEPTUAL AND THEORETICAL BASIS OF THE STUDY

he following explanations define the specific determinants that a business family can impose on the digitalisation process. All the conceptual and theoretical foundations described here have been surveyed and their implications analysed in the context of our study.

Dimensions of digitalisation

Before turning to the fundamental design of the study, we will discuss three different dimensions of digitalisation: products, processes and digital transformation.10 These vary according to their requirements and their underlying levels of complexity. In the digitalisation of existing products, digital technologies are used to retrofit the products or develop new products. As a common side effect of this process, completely new value chains or business models may emerge and can radically change the market for a product or render it obsolete. Product digitalisation often generates higher customer benefits and/or an improved user experience. In contrast, the process dimension has a higher level of requirements. This dimension covers the use of digital technologies to optimise core processes, such as central production processes in a traditional industrial business. The aim of digitalisation in this dimension is, among other things, to improve efficiency in terms of time, quality and/or costs. Lastly, the dimension of the digital transformation of the business model can be described as an altered cause-effect relationship. Digitalised products and/or processes or new services act as catalysts for this cause-effect relationship in the digital transformation of the business model. For example, newly acquired data or customer needs, which are satisfied and available within the current framework of the productmarket combination, may thus be specifically targeted,

collected and capitalised. Often, changed business perspectives cause a radical reorientation of the business's purpose. The resulting digital transformation of the business includes many different changes and usually has an impact on all areas of the business as well as the managing body. Additionally, the introduction of digitalised products/services can give rise to new procurement or distribution channels and foster completely new forms of production.¹¹

Digital openness and willingness as determinants of the digitalisation process

As explained above, digitalisation in family businesses is not only influenced by digital trends and technologies emanating from the business environment. The family¹² in the family business represents a significant determinant¹³ of the design of the digitalisation process. Family members may contribute to the development of strong digitalisation activity in the family business, or be the cause of important digitalisation obstacles, including a failure to make the necessary strategic and structural adjustments. Digitalisation progresses much more rapidly in a business if the owners demand digitalisation, actively promote it and are clearly committed to it.14 Entrepreneurial risk-taking and a high degree of personal identification on the part of the owner representatives with the change process, in combination with quick decision-making processes, lead to enormous adjustments to the changing market and competitive conditions. 15 However, if the business family approaches this issue with anxiety and a fear of loss, and from a generally sceptical and risk-averse perspective, digitalisation opportunities for the family business will frequently be missed or inadequately grasped.

¹⁰ On the concept of dimensions of digitalisation, see Soluk (2018); on the family's influence, see Soluk & Kammerlander (2021).

¹¹ See Bretschneider (2020, 2019), Soluk (2018), Soluk & Kammerlander (2021).

¹² See Schlippe et al. (2021), Wimmer et al. (2011).

¹³ See Habbershon & Williams (1999).

¹⁴ See Bretschneider et al. (2020, 2019), Rüsen et al. (2019), Heider et al. (2020b).

¹⁵ See Heider (2017).

The specific "family factor" level and the resulting influence of the family on the business are essentially determined by two factors, specifically digital openness and the digital readiness of the business family.

In this study, "digital openness"¹⁶ is used to refer to the degree of understanding, conviction and openness towards digitalisation demonstrated by the entire business family.¹⁷

"Digital readiness" refers to qualifications and competencies within the business family and describes the

degree of digitalisation know-how and the entrepreneurial application capability that are accessible among the members of the business family and can be effectively harnessed.¹⁹

Business families exhibit many different mindsets and skills in their professional practice, and each of these needs to be assessed for its effectiveness in digitalisation.

Figure 1 summarises the differences between digital openness and digital readiness.

DIGITAL OPENNESS

The level of understanding, conviction and openness to digitalisation that the business family as a whole brings to the table.

DIGITAL READINESS

The degree of digitalisation know-how and entrepreneurial application competence available and able to be activated among members of the business family.

Figure 1: Digital openness and digital readiness of the business family

¹⁶ The concept of "Open Innovation" is adapted from the context of innovation management and applied to the digitalisation dynamic of the business family. The expression "Open Innovation" was coined by Chesbrough (2003).

¹⁷ See Rüsen et al. (2019); Bretschneider et al. (2019).

¹⁸ This expression is taken from the domain of technology management and applied to the context of digitalisation in family businesses. Tsou & Hsu (2015) define "digital readiness" as the willingness of a business to employ digital resources, as assessed by the scope and extent of knowledge and processes within the business

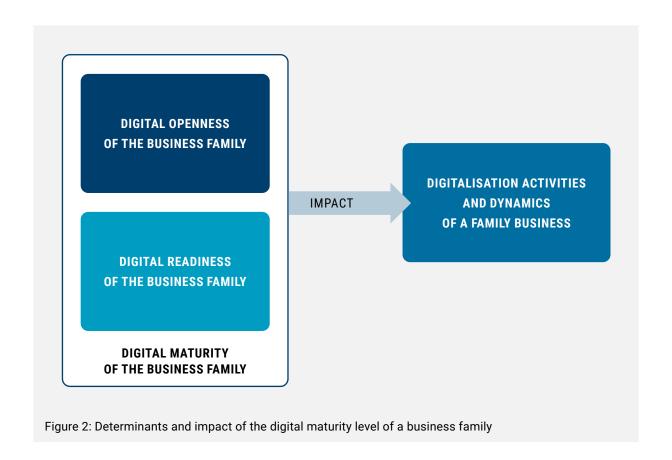
¹⁹ See Rüsen et al. (2019); Rüsen & Heider (2018); Bretschneider et al. (2020); Heider et al. (2020b).

"Digital maturity" of the business family

The previous section highlights that the business family's approach to the digitalisation of the family business is highly dependent on its existing *digital* openness and *digital* readiness. This relationship can be described as the "digital maturity" of the business family. Using the definition of "digital maturity" applied

to an organisation,²⁰ we can define the digital maturity of the business family as follows:

The digital maturity of a business family is expressed by the extent and degree of digital openness and digital readiness within the business family. Both factors are decisive for the digitalisation activities and dynamics of a family business.²¹



²⁰ See Kane et al. (2018), who define the digital maturity of an organisation as the "[...] degree to which organizations have adapted themselves to a digital business environment" (p. 6).

²¹ Rüsen (2021), p. 46.

Generational determinants of the digital transformation of the business model

The digitalisation dynamics of a family business depend on the digital maturity of the business family's decision-makers. If, for example, representatives of the senior generation dominate the supervisory boards and have somewhat critical views on the digitalisation of products, internal processes or the business model, and dismiss corresponding developments in the industry as a temporary fad, then structural problems are inevitable. Although there are individual exceptions, digital maturity is generally lower among members of this generation than among those of the next generation.

Members of the business family who still influence significant decisions despite their relatively advanced age were educated at a time when the opportunities and challenges of digitalisation did not yet exist, and this is reflected in their perspectives on market dynamics and competition as well as business model designs. In contrast, the so-called digital native²³ generation grew up with entirely different communication and networking methods. Recent studies on this subject²⁴ often validate a lack of capability among the older generation to capture the exponential nature of different degrees of dynamics and the resulting indirect risk potential. Further, appropriate measures to exploit opportunities or to avert risks are not taken. The apparent experience-based advantage of the senior generation in comparison to younger generations proves to be a disadvantage in this case, and existing

experience in markets and business models can become a crucial obstacle to achieving change. Yet, the experiences and perspectives of the younger generation can be important future-oriented resources if they are integrated into the digital transformation process of the business. Positive examples show a thoughtful combination of new business and process ideas on the one hand, and capital control and network contacts on the other. Unfortunately, we frequently observe an aggravation of generational conflict between the younger generation or digitalisation specialists from outside the family and the established representatives of the senior generation in the top management team or supervisory bodies, indicating a need for internal family reflection on this factor.

Mental models of the business family as a determinant

Family businesses can be differentiated by the dominant way in which members of the business family understand their traditional roles, style of corporate governance and the governance structures based on these. The prevailing mental model depends on the size and complexity of the respective business family and its dominant way of thinking.²⁵ In this study, the four mental models of the patriarchal logic, the logic of the managing family, the logic of the controlling family and the logic of the investment family have been observed with direct reference to the different digitalisation processes in each type of family business.

²² See Bretschneider et al. (2020), Rüsen et al. (2019). The following considerations are based on these papers.

²³ Generally understood as Generation Y – born after 1980 and raised from childhood in a world full of opportunities regarding communication and networking via the internet. See Palfrew & Gasser (2008).

²⁴ See Schlaadt (2017), Spitzley & Prügl (2017), Wills (2017), Soluk & Kammerlander (2021), Soluk et al. (2021).

²⁵ For more detail on the mental models of the business family, see Rüsen et al. (2020) and Rüsen et al. (2012). The following considerations are based on the ideas raised in these papers.

Patriarchal Logic



The Logic of the Controlling Family



The Logic of the Managing Family



The Logic of the Investment Family



Figure 3: Four dominant logics as the basic form of mental models

In the mental model of the *patriarchal logic*, a key figure ²⁶ in the family has the sole management of the business and the family. In contrast, in the *managing family*, multiple representatives of the business family manage the business in a top management team. Members of the succeeding generation and close relatives may hold further posts in the business. Strong solidarity and quick decision-making processes among the managing and owning circle of the family are key success factors.

The mental model of the controlling family differs fundamentally from this. In this case, the business family delegates the management of the business to adequately qualified people (not necessarily members of the business family) and focuses on its role as owner.²⁷ Representatives of the family practise their role as businessmen and women through their positions on supervisory bodies. The mental model of the controlling business family does not necessarily imply that this supervisory function can only be carried out by members of the business family. Often, people from outside the family also form part of these bodies. However, it is typical for this mental model that the family members represented in these bodies promote the values and attitudes of the business family regarding the family business sustainably to external members of the committee and, above all, to external top management. Owning the business is understood as a task that crosses generations, in which the role of the business family is fulfilled in the active influence of family members on the development of the family business.

Unlike the controlling family, the mental model of the investment family contains no emotional attachment

on the part of the owners to their business. Rather, the business is an entrepreneurial investment to be developed according to the values and beliefs of the business family.

Attitudes and values of the business family as determinants influencing digitalisation process in family businesses

Beyond generational (junior vs. senior) and structural (mental models) factors, business families are shaped by their individual and collective attitudes towards the family business, and these have a profound influence on the family business's ability to adopt digital changes.28 These factors, taken together, result in a profile that describes the unique relationship between the business family and the family business.29 Here, the identification of the family with the business is essential. A high level of identification can have different effects on the digitalisation and digital transformation of the business. Typically, it promotes the digitalisation of processes and products, as the family has a substantial interest in changing the firm's core business, which usually contributes significantly to its identity. Incremental innovations, in particular, are used to improve the business on a qualitative scale. As regards the digital transformation of the business model, it may be expected that a high level of identification with the traditional core business will hamper the changes required. Every fundamental adjustment in the restructuring of the business model will most likely also change the core identity of the business. This led our researchers to suspect that business families may be hindering, or even preventing, necessary digital transformation due to a fear of loss of identity.

²⁶ This individual may be male or female. For females, the logic is described as matriarchal but substantially remains the same as patriarchal logic.

²⁷ The past year's observations show that this mental model is the leading one in the German-speaking region and will most likely become the dominant model for medium-sized family businesses.

²⁸ See Weimann et al. (2019).

²⁹ Research describes this as the concept of social emotional wealth (SEW). See Berrone et al. (2012).

A second family factor is the strength of the emotional bond between family members and the business. Unlike the identification described above, this aspect is concerned with how the emotional attitude of the family influences entrepreneurial decisions. We are ultimately faced with the question of whether the decision-making processes of the family are primarily emotionally-family based (family-first logic) or rationally entrepreneurial based (businessfirst logic). Low emotional attachment translates into high rational decision-making and, according to our assumptions, should drive digital transformation more strongly, as the family prioritises the survival of the business over certain feelings within the family. Conversely, a strong affective bond in the family may prevent or slow down the radical steps needed for digital transformation, which would confront the family with rationality at the expense of emotions.

A third aspect is seen in the fact that family businesses are more strongly engaged in *social networks* with their stakeholders than other businesses because of their long-standing traditions and values. As a rule, family businesses are characterised by long-term and trusting relationships with their clients and suppliers in traditional value chains, but also by similar ties to their employees. Further, they usually maintain close ties with social and entrepreneurial networks within their region. These close social relationships can have a positive or negative impact on the digitalisation process. On the one hand, long-term and trusting relationships are important resources in, for example, com-

mon "unfinished" innovation projects with clients and suppliers. The leap of faith can foster digital transformation along the entire value chain. On the other hand, as mentioned above, social ties may deter the owning family from implementing necessary changes in its business model because it feels responsible for its stakeholders. For example, if a potential digital innovation would lead to job losses, the elimination of important business partners or even the abandonment of traditionally grown networks in the location or region, members of the business family will often withdraw from the project due to social concerns. They are afraid of paying a high personal price: damaging or, in the worst case, destroying their social capital.³⁰

The last family-specific factor is long-term orientation - the much-quoted aspiration to pass on the family business from one generation to the next.31 The more pronounced the transgenerational aspirations of the business family, the more it will shift its actions towards long-term survival, albeit at the expense of short-term profits. This stamina in family businesses can be highly beneficial during an uncertain digital transformation, as such businesses can plan innovation projects for the long term and sustain them for longer. Similarly, family businesses are better able to tolerate short-term uncertainty because their concern is on the long-term impact of their decisions. The downside, however, is that this persistence can make the business sluggish when it comes to implementing digital trends quickly and in the short term.

³⁰ Corresponding dynamics can be observed in the management of crises that threaten the existence of family businesses. Here, hesitant or inadequate restructuring measures often lead to the demise of the entire business. See Rüsen (2016) for more details.

³¹ This is understood as the unconditional will of the current community of owners to pass on the family business to the next and future generations.

4 | RESULTS

n the previous section, we discussed the various influences that the family can exert on the process of digitalising the family business. This chapter will follow up on the initial focus of this study and present the results gathered from the evaluation of feedback from our study respondents. Following the different dimensions of digitalisation, the impact of the family's influence will be categorised according to the digitalisation of products, processes and the digital transformation of the business model.

The following determinants are analysed:

- Section 4.1 looks at the priorities set by the business family with regard to the various dimensions of digitalisation.³²
- Section 4.2 investigates the impact of the business family's digital openness and digital readiness.
- Section 4.3 examines the relevance of "practised" mental models.
- Section 4.4 is devoted to the so-called "family factor". In particular, it identifies the mechanisms of different forms of non-monetary goals (e.g. the degree to which family members identify with the family business, or the strength of social relations with shareholders).
- Section 4.5 looks at how the participating members of the business family assess their business's levels of digitalisation performance in comparison to its competitors.
- Section 4.6 examines which type of person is usually given the responsibility to lead on digitalisation.

Finally, Section 4.7 examines the extent to which family businesses rely on the services of third parties to support their digitalisation.

4.1 | PRIORITIES IN DIGITALISATION

he responses from our survey participants clearly show that the primary focus of digitalisation efforts is on the digitalisation of processes. More than half of the respondents (53%) said that process digitalisation was their top priority. This is not surprising, as such activities typically take place in the context of systematically implemented process adjustments and optimisations.

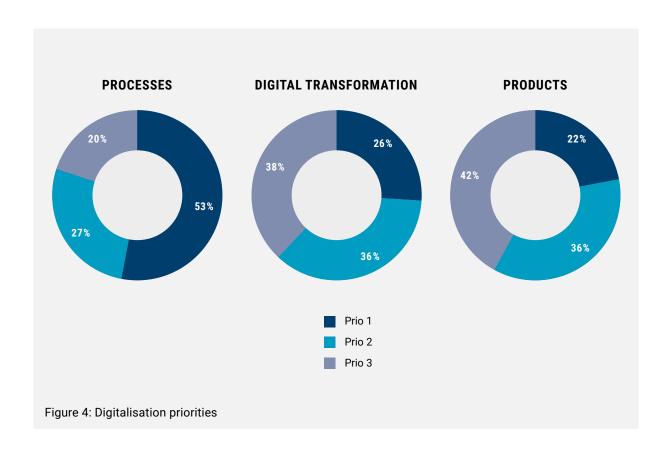
Clearly, the digitalisation of internal value creation and networking with supplier and customer organisations are distinctive focal points. The much-vaunted "Industry 4.0" appears to have been another core component of respondents' digitalisation efforts. The digital transformation of existing business models is only a top priority for around one in four (26%) businesses. Presumably, the factors listed below stand in the way of taking steps towards digitalisation, or perhaps businesses do not want to jeopardise their high cash flows by making changes to the established product-market combination. The digitalisation of products is a high priority for only one-fifth (22%) of respondents. This result merits some explanation, as it is precisely in the B2B sector that several digital extensions of product and customer value have become possible. Despite the opportunities that are opening up, the digitalisation of products is still mainly confined to large, R&D-intensive and international mediumsized businesses.33 Smaller businesses may lack the resources to run strategic product development and,

³² See Soluk (2018).

³³ See Zimmermann (2020).

thus, to think beyond the scope of their product range.³⁴ The second highest priority is given to the digitalisation of products and the business model with 36 per cent each, which at least indicates that the digital

development needs in these dimensions have been recognised. The correlations between the prioritisation of various elements of digitalisation can be seen in Figure 4.



³⁴ See Heider et al. (2020a).

4.2 | THE BUSINESS FAMILY'S DIGITAL OPENNESS AND DIGITAL READINESS

s described in Chapter 3, the influence of the business family on the digitalisation dynamic of the family business is primarily determined by two aspects: the business family's digital openness and its digital readiness. Our survey data explain the strength and direction of potential influences on the individual dimensions of digitalisation. Evidently, the effects of digital openness and digital readiness need to be separated: digital readiness has a positive impact on the digitalisation of processes and products,

yet shows no significant effect on the digital transformation of the business model. It appears that existing digital competence within the business family leads to a pronounced willingness to drive the digitalisation of products and processes forward.

In contrast, digital openness has a positive impact on the digital transformation of the business model but shows no significant effect on the digitalisation of processes and products. It appears that an open-minded attitude towards digitalisation within the business family supports a willingness to change the business and its purpose, and to adjust its development as new circumstances arise (Figure 5).

	PRODUCTS	PROCESSES	DIGITAL TRANSFORMATION OF THE BUSINESS MODEL
DIGITAL READINESS OF THE BUSINESS FAMILY	positive	positive	
DIGITAL OPENNESS OF THE BUSINESS FAMILY			positive

Figure 5: Influence of digital openness and readiness on the dimensions of digitalisation

4.3 | THE "PRACTISED" MENTAL MODEL OF THE BUSINESS FAMILY

he analysis of mental models shows that the mental model of the controlling business family has a strong positive influence on the digitalisation of products. This becomes particularly interesting when compared to the results above, which state that the digitalisation of products is currently given (too) low a priority by the participating businesses. Controlling business families are outstanding at increasing the "dormant" product innovation potential of their businesses. This may be because of their distance from day-to-day business which gives them a clear sight of strategic undertakings. Further, controlling owners can perfectly combine their experience, sometimes gained over generations from their valueadded chain, with the human capital (i.e. technological or international expertise) found in professional external management to progress faster and better product development ideas. Even more so, business families can use their personal reputation, linked to the products of the business, to foster a client's acceptance of new products while at the same time keeping a close eye on the quality and maturity of these innovations to secure their reputation. Notably, no analogue effects are observed in the digital transformation of the business model that might be supported by similar arguments. However, it is important to note that the digitalisation of processes is determined by the digital readiness - the competence and expertise - of the business family, whereas the digital transformation of the business model is, rather, due to the digital openness of the family. Thus, the particular competencies of the controlling family's mental models cannot be effectively enforced in the latter case.

4.4 | FAMILY VALUES AS DETERMINANTS OF THE DIGITALISATION PROCESS IN A FAMILY BUSINESS

amily values as another potential determinant of digitalisation were examined among the business families participating in the survey by assessing the importance of the pursuit of non-financial goals (so-called socio-emotional assets). Again, we can observe that these "family factors" have a clear influence on digitalisation. Only the dimension of "identification of family members with the family business" appears to have no effect on digitalisation in our sample. Both the second (social relationships with employees and external stakeholders) and third (emotional attachment of family members to the family business) target dimensions show a clear negative effect on the digital transformation of the business model. A possible explanation for these negative effects may be the fear that a potentially radical change in the business would require restructuring measures that would negatively impact both target dimensions. Another plausible explanation may be that the cohesion of the family would be "disturbed" by a digital transformation process and that external know-how, which is rejected, would become necessary for a successful process design.

However, in the fourth target dimension – long-term orientation (transgenerational) – a positive effect is seen in the digital transformation process of the business. Further, this target dimension positively affects the digitalisation of processes (Figure 6). Both positive

mechanisms of action are plausible, as the long-term perspective supports the development of experience and know-how in terms of production routines and human capital. These two factors are essential for structural changes in processes and the business model.

	PRODUCTS	PROCESSES	DIGITAL TRANSFORMATION OF THE BUSINESS MODEL
SOCIAL RELATIONSHIPS			negative
EMOTIONAL ATTACHMENT			negative
LONG-TERM ORIENTATION		positive	positive

Figure 6: Influence of non-financial objectives on different dimensions of digitalisation

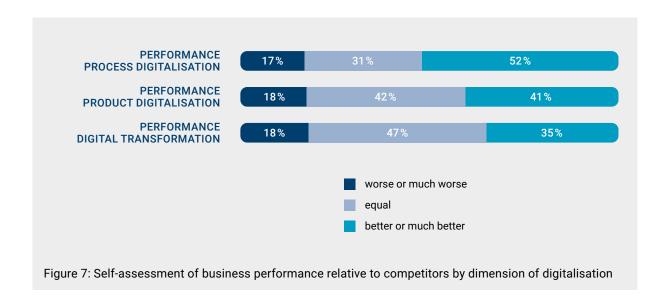
4.5 | DIGITALISATION PERFORMANCE COMPARED TO COMPETITORS

o create meaningful insights, the survey participants were asked to assess their digitalisation performance in comparison to that of competitors in the same market sector. The responses show that more than half (52%) of all participants see themselves as having an advantage over their competitors in the area of process digitalisation.

Most respondents consider themselves to be less well-positioned in the areas of product digitalisation and the digital transformation of the business model. In the area of product digitalisation, nevertheless, 41% of respondents still state that they are better or much better than their competitors. In terms of the digital transformation of the business model, only 35% of respondents assume they perform better or much better than their competitors. At the same time, it is evident that the share of respondents who think of

their performance as relatively worse or even much worse is spread equally across all digitalisation dynamics: about every sixth person makes this assessment (Figure 7). Overall, the self-assessment of the business's performance compared to the competition shows that the respondents rate themselves highly in terms of digitalisation dynamics. There is no visible difference in terms of age or size among the participating organisations. Whether and to what extent this self-assessment is justified cannot be assessed on the basis of the data available. However, our experience from the field casts doubt on these self-assessments, especially concerning the digital transformation of the business model.

Overall, family businesses seem to achieve the digital transformation of their business model if they have a stronger integration of external stakeholders. In this context, smaller business families face greater challenges in fostering digitalisation due to their constrained resources.³⁵



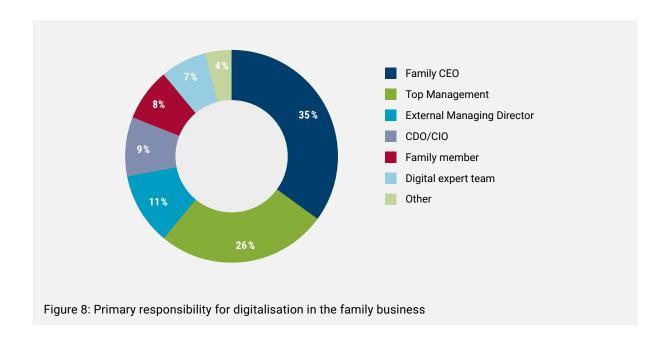
³⁵ See Heider et al. (2020a).

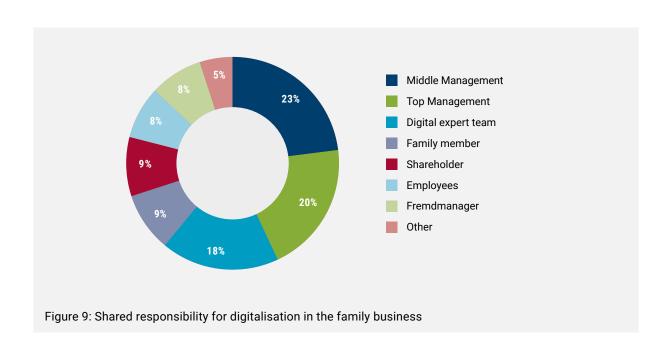
4.6 | RESPONSIBILITY FOR DIGITALISATION PROCESSES IN THE BUSINESS

o better understand the specific approaches in family businesses, the survey also investigated who is primarily responsible for digitalisation processes in the family business. The results show that the primary responsibility lies in most cases with the family CEO (35%) or the management as an entity (26%). Thus, digitalisation activities are "an executive matter" for the study participants (Figure 8).

When asked about other important actors (with shared rather than primary responsibility), the survey results show that middle management (23 %), the managing directors (20 %) and a digital expert unit (18 %) take on central positions. Somewhat surprising is the finding that CDOs and CIOs play only a relatively minor role: in just one out of ten family businesses, a CDO or CIO plays the second most important role in digitalisation. In contrast, members of the business family (9 %) and shareholders (9 %) are named as the second most important entity in almost double the cases. It seems, therefore, that the family or owners play a more important role in digitalisation than the executives (Figure 9).



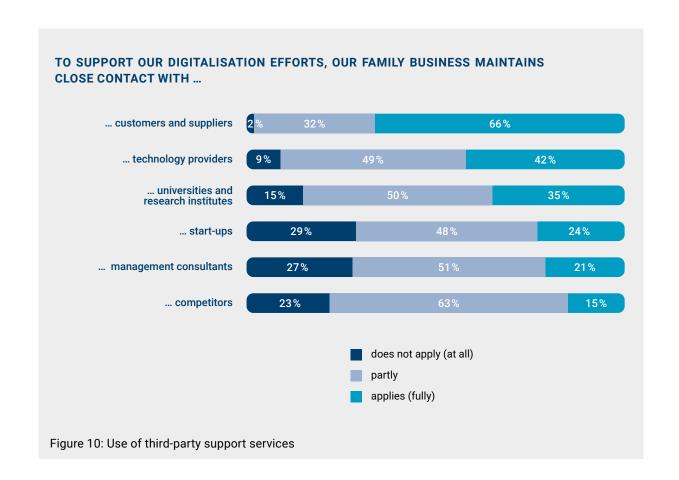




4.7 | ASSISTANCE BY THIRD PARTIES

o successfully implement digitalisation processes in the family business, families like to take advantage of the technological knowledge and experience of third parties. The responses of the study participants show that customers and suppliers are preferred partners when it comes to digitalisation

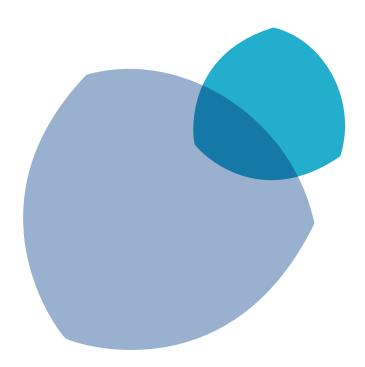
processes in family businesses: 66% of the respondents maintain close ties to these external stakeholders for support. The second most consulted group are technology providers (42% of respondents), followed by universities and research institutes (35%). However, start-ups (24%), business consultants (21%) and market competitors (15%) are seen as having less potential to help (Figure 10).



4.8 | SUMMARY

he results of our survey validate that family factors exert an influence on digitalisation dynamics. Major differences were observed between individual dimensions, and the results differed between the digitalisation of a product, a process or the business model. Although the influences of mental models were only seen in one case, the analysis of target dimensions of the "family factor" shows pecu-

liarities, especially regarding the digitalisation of the business model. The data on who is responsible for digitalisation confirm the initial hypothesis of this study – that the driving force behind the digitalisation process comes ultimately from family members within the management or the shareholder circle. In light of the composition of this sample, it is evident that the digitalisation of the family business is "an executive matter" and that key decisions still need to be taken by active members of the business family.



5 | RECOMMENDED ACTIONS

Based on the quantitative results of the study, the following actions are recommended for members of business families and external representatives of the management, supervisory bodies and digitalisation officers:

- Ensure that everyone in the family and the business agrees on one definition when talking about digitalisation and deciding on digitalisation activities. Above all, all stakeholders must be aware of the differences and different implications of process and product digitalisation and the digital transformation of the business model.
- Conduct an organised self-assessment of the existing digital maturity within the business family.
- Be aware that family values and especially identification with and emotional attachment to the business, as well as the long-term strategy can implicitly but substantially influence the family's understanding of digitalisation.
- Controlling business families are especially skilled in pushing forward urgently needed product digitalisation. All other mental models can learn from this observation: establish a board for digitalisation made up of family members, for example as a project steering committee for digital projects.
- Systematically organise external expertise as a sounding board for family-internal reflections about the issue of digitalisation. In this way, conflicts which may be expected among family members (old vs. young, executive vs. non-executive family members) may be avoided.!

- Regularly reassess the priorities and focal points for your digitalisation activities.

 The point of reference should not be easy implementation (i.e. process digitalisation) or easy communication among the shareholder circle (i.e. new products), but the future viability of the business.
- Integrate the subject of digitalisation as a fundamental part of existing concepts for the development of ownership competence within the business family. Undertake collective "learning journeys" to digital champions in order to increase digital openness and digital readiness.
- Send NextGen representatives on a "Digital Waltz"³⁶, so that the thinking behind business model disruptions can be "studied" within the family.
- As a business family, specifically look for contact with start-ups to become familiar with their "lived thinking". Collaborating in partnerships with start-ups can fuel the necessary "cultural change".³⁷
- Regularly reflect, together with non-family members of governance bodies (management, supervisory board) and representatives of the shareholder circle, on the existing business model, and assess its future viability. Ensure that any differences in the assessment of the future (and future viability) of the family business are transparent.

On the expression "Digital Waltz", see Schlenk-Barnsdorf & Hülsbeck (2021), p. 23.

³⁷ See Heider et al. (2020c) for the potential of partnerships with start-ups.

6 | CONCLUSION

he results of the study presented emphasise the particular features of digitalisation in family businesses. Evidently, the family in the family business has a considerable impact on the business's digitalisation processes. Notably, the digital maturity of a business family plays a significant role in the digital development of the business. Thus, openness and willingness to engage with digital issues in the owner's community and the business family –and the acquisition of the required competencies – are decisive. Business families that play a managing role in the business choose different priorities for their digitalisation efforts from those who are focused on their role as owners.

In principle, the owning family has to address digitalisation issues in a structured and systematic way. This includes a product strategy, corporate processes

and the overall business model. If the necessary strategic reflection and development processes are not executed, the future viability of the family business is at risk.

It is hoped that the findings of this study will provide an impetus for intra-family dialogue in business families. The opportunities to exchange views about relevant issues with outside experts or other family businesses regarded as friends are more numerous than ever before. Active family members must simply foster an understanding that the issues addressed here are of existential importance for the survival of the family business.

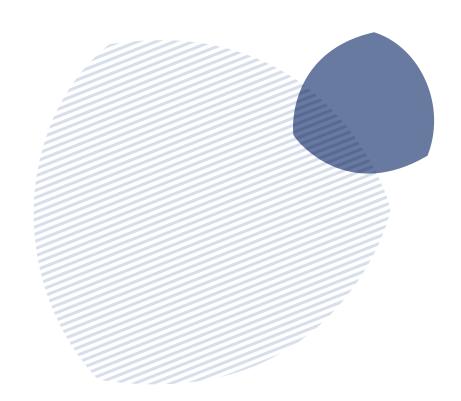
If this study contributes to this development, it will have achieved its aims.



7 | APPENDIX: DATABASE

he primary data is based on a survey of family businesses in German-speaking countries, conducted in May 2019. Participants were selected on the basis that they belonged to a business family and, in particular, to the circle of shareholders or played an active role in the family business. In total, the questionnaire was sent to 3,887 members of family businesses and business families registered in the database of the WIFU Foundation, of whom 304 accessed it, resulting in an initial response rate of 7.82%. The first evaluation of data led to the exclusion of 140 participants because of incomplete questionnaires. The final sample comprises 164 respondents, including members of 98 large (500+ employees) and

66 small and mid-sized (up to 500 employees) family businesses. In terms of the characteristics of the family businesses, they were, on average, 108 years old and in their third generation. In 72 % of businesses, the executive management is chaired by a family member, meaning that this responsible task was handed to an external manager in only 28 % of all cases. Of the total participants, 23.92 % were female, with an average age of 51 years. As information provided on the size (measured in terms of revenue) and the sector of the respective family businesses was incomplete, we cannot provide a description of the sample in terms of these features.



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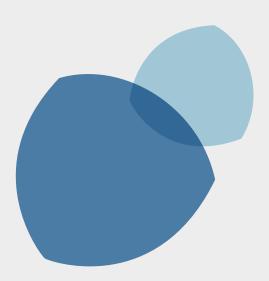
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