



**International Journal of Economics and Business Research**

ISSN online: 1756-9869 - ISSN print: 1756-9850

<https://www.inderscience.com/ijebr>

---

**Challenges of person-organisation fit in (post)pandemic times: a comparative study in the service sector under the aspect of digitisation and alienation**

Daniela Ludin, Markus Holler, Erika Mueller, Wanja Wellbrock

**DOI:** [10.1504/IJEBR.2024.10064997](https://doi.org/10.1504/IJEBR.2024.10064997)

**Article History:**

Received:	15 December 2023
Last revised:	15 May 2024
Accepted:	23 May 2024
Published online:	05 July 2024

---

# Challenges of person-organisation fit in (post)pandemic times: a comparative study in the service sector under the aspect of digitisation and alienation

---

Daniela Ludin\*

Faculty of Economics,  
Heilbronn University of Applied Sciences,  
Max-Planck-Strasse 39, 74081 Heilbronn, Germany  
Email: [daniela.ludin@hs-heilbronn.de](mailto:daniela.ludin@hs-heilbronn.de)  
\*Corresponding author

Markus Holler

International Institute for Empirical Social Economy (INIFES),  
Haldenweg 23, 86391 Stadtbergen, Germany  
Email: [holler@inifes.de](mailto:holler@inifes.de)

Erika Mueller

Sustainability Board,  
Heilbronn University of Applied Sciences,  
Max-Planck-Strasse 39, 74081 Heilbronn, Germany  
Email: [erika.mueller@hs-heilbronn.de](mailto:erika.mueller@hs-heilbronn.de)

Wanja Wellbrock

Faculty of Economics,  
Heilbronn University of Applied Sciences,  
Max-Planck-Strasse 39, 74081 Heilbronn, Germany  
Email: [wanja.wellbrock@hs-heilbronn.de](mailto:wanja.wellbrock@hs-heilbronn.de)

**Abstract:** This study looks at organisational adjustments in the service sector induced through the COVID-19 pandemic. It uses the perspective of alienation triggered by digital transformation and the impact on workplace interaction and person-organisation fit. Core element is a survey of German hairdressing and floristry businesses. Descriptive statistical methods, multinomial logistic regression analysis and qualitative content analysis are used for evaluation. Only a few pre-pandemic and post-pandemic studies of the hairdressing/floriculture sector consider ‘person-organisation fit’ and ‘alienation’. This study tries to contribute to this research stream. Findings show that the COVID-19 pandemic has a direct impact on the performance of an organisation and its employees. Pandemic-driven digitisation was

accompanied by positive and negative effects on cooperation within the company. It is crucial to stimulate new thoughts and approaches in the organisation and to emphasise digital transformation as a necessary step. Analogue and digital processes must be brought closer together.

**Keywords:** person-organisation fit; digitisation; alienation; service sector; hair salons; flower shops.

**Reference** to this paper should be made as follows: Ludin, D., Holler, M., Mueller, E. and Wellbrock, W. (2024) ‘Challenges of person-organisation fit in (post)pandemic times: a comparative study in the service sector under the aspect of digitisation and alienation’, *Int. J. Economics and Business Research*, Vol. 27, No. 5, pp.1–28.

**Biographical notes:** Daniela Ludin is a Professor at Heilbronn University of Applied Sciences, Germany, Faculty of Economics and Chair of General Business Administration. She holds the research professorship of “Sustainability, digitization and innovation” and is the Sustainability Officer of the Heilbronn University. She is the Head of the B.A. program Sustainable Procurement Management. Her research focuses on sustainability, digitisation, innovation, entrepreneurial economics, SMEs and consumer economics.

Markus Holler is a Researcher at International Institute for Empirical Social Economy (INIFES), Stadtbergen, Germany. His main fields of work include research on occupational health and decent working conditions, labour-market research, social reporting and quantitative analysis and survey methodologies. He also gained experience in application studies at the company level, promoting good working conditions and healthy workplaces.

Erika Mueller is a Sustainability Speaker and Lecturer at Heilbronn University of Applied Sciences, Germany. She is doing her Doctorate on the topic of sustainable innovations. Before her time at the university, she gained working experience in a non-governmental organisation.

Wanja Wellbrock is a Professor at Heilbronn University of Applied Sciences, Germany, Faculty of Economics and Chair of General Business Administration and Procurement Management. He holds the research professorship of ‘Sustainable Procurement and Value Creation Management’. His main research areas are supply chain management, strategic procurement management and sustainability management.

This paper is a revised and expanded version of a paper entitled ‘Person-organization fit and togetherness at work in (post)pandemic times. A comparative study in the service sector under the aspect of digitization and alienation’ presented at 1st International Conference on Global Advances in Management and Economics (GAME), Zadar, 16th June 2023.

---

## 1 Introduction

The COVID-19 pandemic caused considerable economic damage worldwide since 2020. Germany is not an exception. The service sector is suffering greatly from the changes caused by the pandemic. This is clearly illustrated in this study on experiences in the hairdressing and the floristry sector. Due to the pandemic, hair salons and flower shops in

Germany had to close completely over several months during two lockdowns. As a result, hairdressing and floristry businesses suffered financial losses and had to fear for their existence and the jobs of their employees. Due to hygiene requirements and capacity restrictions, the work processes for providing services became increasingly complex during the pandemic, especially for hairdressers, but florists were also affected. Hairdressing and floristry entrepreneurs were and are forced to respond and adapt to the external shock of the COVID-19 pandemic in order to stay successful.

This article uses a Germany-wide survey of hairdressing and floristry businesses, executed in January and February 2021, to examine organisational changes in these service sectors. The focus here is primarily on changes in the context of possible person-organisation misfits due to changes in working conditions because of the COVID-19 pandemic, alienation and additional effects of the utilisation of digital tools. Digital innovations can be used, for example, to tap into new customer groups using social media or other digital platforms, or to make work steps more efficient and effective regarding the hygiene and restriction rules mentioned above. Along with these changes, however, the critical aspect of an emerging person-organisation misfit and possibly associated alienation need to be considered. In addition, pandemic-related changes in the interaction of employees against the backdrop of digital adaptation processes and the resulting implications for post-pandemic work in the hairdressing and floristry sector need always be reflected.

## **2 Theory**

### *2.1 'New normal' of working in hairdressing salons and flower shops during the COVID-19 pandemic and the urge for resilience*

In 2019, 80,616 hair salons existed in Germany. 12,310 retail companies are selling flowers, plants, seeds, and fertilisers. In 2018 a hair salon had an average of 2.9 employees. In this context, a floristry company employed an average of 1.9 employees in 2019 (ZdH, 2021; Statistisches Bundesamt, 2021a; Statistisches Bundesamt, 2021b). Accordingly, hair salons and floristry businesses in Germany can be classified as small and medium-sized enterprises (SMEs) in the enterprise typology (The Commission of the European Communities, 2003). SMEs are considered to be the mainstays of the German economy (Statistisches Bundesamt, 2023).

During the COVID-19 pandemic, these small- and medium-sized hairdressing salons and flower shops in Germany were closed for months as part of two lockdowns (Dostal, 2020). During the openings between the two lockdowns and after the second lockdown, work processes for providing services became increasingly complex, especially for hairdressers but also for florists (BGW, 2021a, 2021b, 2021c; Fachverband Deutscher Floristen (FdF) Landesverband Sachsen e.V., 2022).

From an economic perspective, the COVID-19 pandemic represents an unexpected external shock (Bello et al., 2020; Priyono et al., 2020; Carnevale and Hatak, 2020), which has a profound impact on the national economy and individual industries (Roša, 2021; Roša and Lobanova, 2022). Hairdressing and floristry businesses needed to adapt to this unpredictable business environment in order to survive. They were urged to demonstrate organisational adaptability and resilience (Florişteanu, 2020).

In this context, the challenge for SMEs is particularly huge to maintain stability and at the same time to be flexible for future developments (Abdul-Halim, 2018; Xiang et al., 2021). Against the backdrop of the experience of the lockdowns, questions arose for hairdressing and floristry businesses regarding the creation of resilient and innovative business models that save cost, improve work processes and preserve jobs at the same time. This relates, for example, to the expansion of the customer base through digital offers, the development of qualitative relationships with customers, the expansion of consulting services or digitally supported appointment bookings, inquiry processing or work processes (Almeida et al., 2020; Chen and Huang, 2020).

Hairdressing is one of the so-called ‘body-related services’, in which social and physical proximity are core components of the service as well as of the experience for employees and customers. In flower shops, the sensory experience of shapes, colours and scents of flowers and plants is a core component for both customers and employees. Detailed personal advice, e.g., for floral decorations at celebrations, also plays an important role (Onlinehändler News, 2021). Therefore, the loss of the above-mentioned sensory experiences and increased use of digital formats might have a significant impact on employees in hairdressing and flower shops (Greer and Payne, 2014; Cijan et al., 2019; Heinonen and Strandvik, 2020; Sapta et al., 2021; Etheredge and DelPrince, 2021; Hamouche, 2023).

## 2.2 *‘New normal’, person-organisation fit and resilience*

The COVID-19 pandemic has a direct impact on the performance of an organisation and its employees. The resulting necessary changes in personnel and organisational management pose a challenge. For employees, the pandemic resulted in work changes in technical, physical, and socio-psychological respects (Baghiu, 2020; Pilawa et al., 2022). Contact-reduced work and production processes come to the fore; social interaction at the workplace was subject to new rules (Elcheroth and Drury, 2020). These changes could also affect the compatibility of the individual employee and the organisation he or she works for (so-called person-organisation fit). Person-organisation fit, is the fit (consistency) between employees and organisations (Kristof, 1996). Kristof-Brown et al. (2005) identified three crucial features of person-organisation fit:

- 1 the similarity between the characteristics of the employee and the organisation
- 2 the common ground between the targets of employee and the organisation
- 3 the mutuality between the values of an employee and the organisation.

The compatibility between the individual (employee) and the organisation (company) might diverge because of the pandemic. Thus, values and goals can shift, and existing pre-pandemic congruence can dissolve. Employees who were once a good fit for a company and its corporate culture now no longer feel comfortable in the company and pandemic misfit occurs (Bhatt et al., 2024; Carnevale and Hatak, 2020; Kristof, 1996; Follmer et al., 2018; Kristof-Brown et al., 2005; O’Reilly et al., 1991; Chatman, 1991; Chatman, 1989; Tom, 1971). For example, customer proximity was a key feature of work in pre-pandemic times, especially in the hair salons, but also in flower shops. In addition, the individual needs to build relationships and strive for companionship with others as described by Barrick et al. Exactly this interaction was limited or completely absent in

the pandemic compared with pre-pandemic work environments (Barrick et al., 2017; Carnevale and Hatak, 2020).

Baş (2021) investigated, if the person-organisation-fit affects the (psychological) resilience of employees during the pandemic. He found that with increasing person-organisation fit the psychological resilience of employees increased as well (Baş, 2021). Resilience can be understood as an individual capacity or ability to cope with or adapt to adversity, threats or to extraordinary situations and conditions in a successful way (Stewart et al., 1997; Fraser et al., 1999). Besides the individual level, resilience brings positive results on the businesses level (Baş, 2021). As resilient organisations likewise can anticipate, mitigate, and respond to risks due to sudden changes in the external environment and deliver a good work performance (Argyris and Schön, 1996; Boylan and Turner, 2017; Uhl-Bien and Arena, 2018; Carnevale and Hatak, 2020; Uhl-Bien, 2021, Baş, 2021). How supervisors or managers have supported employees during the pandemic times might also influence their work performance and person-organisation fit (Liu and Xie, 2023). Managers or leaders that establish nurturing relationships for both employees and organisations and show responsibility, but also make use of other skills such the ability to reframe and adapt to uncertainty, create a more positive environment for the employees “where they perceive a better fit of their personal values” [Haider et al., (2022), p.7]. Because of good leadership, also or especially in times of crises, the person-organisation fit might be positively influenced and result in further positive effects such as psychological well-being and resilience (Haider et al., 2022; Jie et al., 2021; Liu and Xie, 2023).

### 2.3 ‘New normal’ and possible alienation effects

Working conditions for hairdressers and florists drastically changed towards a more contact-free work organisation by shifting to digital offers or the implementation of policies and processes aimed at minimising contact between people during the times of the pandemic (Carnevale and Hatak, 2020). Carnevale and Hatak signal a need for research here, against the backdrop of Chawla et al. on the extent to which pandemic-related influences on work processes and social interaction have resulted in a person-organisation ‘misfit’ (Carnevale and Hatak, 2020; Chawla et al., 2020). This is the starting point for this study, which also considers possible (alienation) developments (misfits) that may have arisen because of the increased use of digital tools in the previously less digitally positioned hairdressing and floristry businesses.

A *person-organisation misfit*, might result in work alienation (Bayram et al., 2017; Damar and Celik, 2017). Following Marx (1867, 2019) and Seeman (1959), this is to be understood as the employee no longer experiences job satisfaction as a result of changes in the company organisation related to work products, work processes, social interaction and performing abilities (Bayram et al., 2017; Tyagi et al., 2023). The disruptive and challenging conditions that the COVID-19 pandemic caused, might also lead to alienation effects in hair salons and flower shops in these four areas (Kozhina and Vinokurov, 2020; Mehta, 2022; Rožman et al., 2021). The increased use of digital technologies due to lockdowns and mandates can additionally lead to alienation in this context, as well as to physical and psychological stress symptoms due to lack of social connection (Bullock et al., 2022; Elbogen et al., 2022). This so-called ‘technostress’ might also impact on work alienation and the person-organisation fit as it might lead to reduced job

satisfaction, reduced commitment to organisational goals and values, role conflicts or role overload, reduced productivity and innovation potential (Tarafdar et al., 2011). Rosa places digitisation directly in the context of the concept of alienation coined by Marx. According to him, digitalisation leads to alienation in five different ways. In the case of alienation from space, social and spatial-physical proximity fall apart:

- 1 alienation from things results from the accelerated society and leads to short-term turnover times in the acquisition of new consumer goods
- 2 alienation from one's own actions is reflected in the working off to-do lists
- 3 the experience of time is becoming shorter and shorter – time passes more quickly – and thus leads to alienation from time
- 4 technical acceleration leads further to more contacts and bears the danger of social saturation, which leads to self-alienation.

Accordingly, digital processes have a great potential for alienation since they are increasingly becoming an end in themselves (Rosa, 2003, 2010). Further alienation effects might be triggered by the fact that a 'sensual experience' is missing in digital formats and that a non-existent 'density of experience' thus leads to a 'desensualisation' of work. As mentioned above the work of florists and hairdressers is very closely related to sensual experiences and is core of service. Effects of desensualisation and related emotions of employees, e.g. losing meaning in work or alienation due to dynamic changes towards an increase of digital formats need to be studied further (Hardering, 2021; Laaser and Karlsson, 2022).

Current research specialises in psychological effects due to the COVID-19 pandemic and changes in working conditions on employees (e.g., Battisti et al., 2022; Swaney et al., 2021, Schmidtke et al., 2021; Jie et al., 2021), while other research generally investigates socio-cultural and psychological effects of the digital transformation (e.g. Hausberg et al., 2019; Rosa, 2010; Abbas et al., 2014). Several studies focused particularly on hairdressers, stress factors and possible alienation effects induced by the pandemic (Anacleto et al., 2020; Brown et al., 2021; McCann, 2022; Öztas et al., 2023).

In order to better understand the induced changes and effects of the COVID-19 pandemic on work processes, person-organisation fit of and on employees in hair salons and flower shops, this study likes to contribute to existing research. The focus is on changes in the interaction of employees against the background of digital adaptation processes from the perspective of alienation.

Based on the literature review, this paper is answering the following two research questions:

- 1 Has the pandemic changed the corporate culture/interaction of employees in hairdressing and floristry businesses? Does this have an impact on the person-organisation fit?
- 2 How can pandemic-related changes in the corporate culture/in-house interaction in hair salons and flower shops be assessed against the background of digital adaptation processes from the perspective of alienation?

### **3 Material and methods**

Based on the current state of research, a complementing mixture of survey and evaluation methods was chosen. The research design is therefore a combination of literature analysis, secondary data analysis and two written surveys, one for hairdressing and one for floristry businesses. Descriptive statistical methods, multinomial logistic regression analysis and qualitative content analysis according to Mayring are used for the evaluation (Mayring, 1983, 2021).

#### *3.1 Survey*

The two large-scale Germany-wide online surveys were conducted in January and February 2021.

On the hairdressing side, TOP HAIR International, the leading European trade magazine for hairdressers, and *friseurunternehmer.de*, the only pure hairdressing entrepreneur group in the German-speaking world with around 5,500 members, were involved. TOP HAIR International is a communication platform for the hairdressing industry; its portfolio includes the leading trade magazine of the same name for hairdressers in Europe, which has been successful on the market for over 35 years. Both TOP HAIR International and *Friseur-unternehmer.de* promoted and thus supported the online survey on their social platforms. The hairdressing companies were referred to via social networks, respectively Instagram and Facebook, to a link to the platform ‘Survey Monkey’, which invited them to participate in the survey. In addition, 815 randomly selected hairdressers were made directly aware of the survey via email.

On the floristry side, the Association of German Florists [Fachverband Deutscher Floristen (FDF)] was involved in the survey. It is the employers’ association and the professional representative body of German florists. With its eleven regional associations, the professional organisation has around 4,000 members nationwide. The FDF advertised and supported the online survey on its social platforms. Floristry businesses were also referred to a link to the ‘Survey Monkey’ platform via social networks, respectively Instagram and Facebook. In addition, 450 randomly selected flower shops, garden centers and other floristry companies were made directly aware of the survey by mail.

To optimise the surveys, pretests were conducted in December 2020 and January 2021 with one decision-maker each from TOP HAIR International, *friseurunternehmer.de* and the Association of German Florists [Fachverband Deutscher Floristen (FDF)]. A total of  $n = 763$  hairdressing businesses and  $n = 375$  floristry businesses took part in the two surveys. According to industry representatives, the two surveys, which reached 3% of floristry businesses and 1% of hairdressing businesses throughout Germany, are to be regarded as historically unique.

The surveys included questions about company-related problems (loss of customers, redundancies, short-time work, concerns about the company), the company’s behaviour (price increases, investments during the COVID pandemic, changes in the range of services offered, the advertising channels used and online tools) and related factors such as the corporate culture.

The data collected is cross-sectional, although some aspects (services offered, online formats used and advertising channels) were asked retrospectively about the time before the first lockdown, since the first lockdown, about the interim period between the



lockdowns and since the second lockdown. These data were prepared for quantitative analyses. Items were combined to binary variables, and a final distinction was made between the time before the first lockdown and the time after.

In both surveys, the usage of different online-tools<sup>1</sup> was coded as one dummy variable that indicates if an online-tool is used or not. This is based on the assumption, that different online tools do not have another meaning for our research question. For the same reason, the services online hairdressing advice, online colour advice and online haircutting course were combined into ‘interactive online services’ in the survey of hairdressing companies. In addition, for a summary view, both online formats and interactive online services were combined into one variable, as the transitions could be fluid and both items express a form of digitalisation. In the survey of floristry businesses, three online services (online store, cooperation with Fleurop, Click & Collect) were combined, indicating whether at least one of these services was already offered before the COVID crisis or has been newly introduced since the COVID crisis. In addition to content-related reasons, this approach is justified by the problem of partly limited case numbers.

### 3.2 *Quantitative analysis*

The statistical analysis was carried out using the software packages SPSS and Stata. In order to investigate which characteristics changed the corporate culture in the hairdressing and floristry businesses during the pandemic and to determine which conditions contributed to an improvement or deterioration of the corporate culture, regression models were calculated in addition to bivariate correlation analyses. The dependent variable is the question of whether the corporate culture/employee interaction has not changed, improved, or deteriorated as a result of the pandemic. It is therefore an ordinal scaled dependent variable for which various regression methods can be used. The ordinal regression model (ordered logit model) requires that the distances between the levels of the ordinal dependent variable have no influence on the coefficients in the regression model (‘parallel regressions assumption’ or ‘proportional odds assumption’). If this assumption is violated, other methods are recommended, including the multinomial logistic regression model, which is also suitable for nominal data (Long and Freese, 2014).

The proportional odds assumption was examined using the Brant test. The significant result in each case indicates that the prerequisites for a ‘proportional odds model’ are not given (Long and Freese, 2014). Therefore, multinomial logistic regression models were calculated.

The results of logistic regression models are very often presented as odds ratios, which, however, are difficult to interpret upon closer inspection. For example, interpreting odds ratios as a measure of the chance or risk of occurrence of an expression of the dependent variable relative to a reference category of the dependent variable is formally correct, but it does not solve the difficulty that odds ratios cannot be interpreted as probabilities and likewise cannot be interpreted as ratios of two probabilities. It has therefore become a common recommendation to present the results of logistic regressions in terms of marginal effects (Long and Freese, 2014; Norton and Dowd, 2018; Wulff, 2014). The use of marginal effects is also recommended specifically for the interpretation of multinomial logistic regression models because the alternating comparison of only two expressions of the dependent variable can lead to misinterpretations (Wulff, 2014).

Marginal effects represent the change in the probability to observe one category of the dependent variable in the form of percentage points and thus in the intuitively more understandable metric of probabilities. However, marginal effects expressed in probabilities behave nonlinearly with respect to the dependent variable, and the marginal effect is not identical for all values of the independent variables. To obtain average measures of the marginal effects, the average effect can be represented as the mean of the marginal effects over all observations ('average marginal effect', AME), or as the marginal effect when all remaining independent variables are fixed to their average values in the sample ('marginal effect at the means', MEM) (Long and Freese, 2014; Wulff, 2014). Although there is no uniform answer to the question of which summary coefficients should be used to present the results of logistic regression models, there are some methodological reasons for using AMEs (Long and Freese, 2014; Norton and Dowd, 2018).

The variables used in the regression models are dichotomous or were coded that way, apart from the item (corporate culture) used as a dependent variable. The AME thus depicts by how many percentage points the occurrence of the independent variable (independent variable = 1) – compared to the non-presence of the independent variable (independent variable = 0) – increases or decreases the probability for each outcome of the dependent variable on average, without changing the values of other variables in the regression model.

According to common conventions, significant results are defined as those with a probability of error of 5% ( $p < 0.05$ ) (Leo and Sardanelli, 2020). Due to a small sample size in the survey of floristry companies, significance levels of  $p < 0.1$  are reported as additional information.

### 3.3 *Qualitative content analysis*

The open responses were evaluated using qualitative content analysis according to Mayring. The approach of 'summarising content analysis' was chosen. For this purpose, the original statements of hairdressing and floristry entrepreneurs were reduced to or transcribed into a short text/keyword. Subsequently, by means of inductive category development, categories were formed for the keywords in a process-like manner, which reflect the repeated statements in a meaningful way. In a further step, similar categories were grouped together (Mayring, 1983, 2021). To show different aspects of a category or short texts/keywords, these were grouped according to content in each case. Weighty aspects were made clear via a frequency evaluation of the topics. Bayram et al. mention different spheres of alienation in person-organisation settings:

- 1 work products
- 2 work processes
- 3 social interaction
- 4 performing abilities.

A classification of the mentioned negative impacts according to these spheres was additionally established (Bayram et al., 2017).

## 4 Results

### 4.1 *Quantitative results of the primary survey of hair salons*

#### 4.1.1 *Frequencies*

Table 1 shows the frequency distribution of the variables used. Most hair salons stated that the pandemic had not changed the corporate culture or the interaction between employees. About 26%, slightly more companies reported a deterioration than an improvement. Many businesses feared for their continued existence and lost customers. 11% had to lay off permanent staff. Two-thirds of the companies have changed their organisation and structure. These frequencies make it clear that the pandemic has represented, or still represents, a situation of upheaval and crisis for many of the companies surveyed.

Slightly more than half of the companies surveyed stated that they had already used at least one online format before the first lockdown, and approximately one in four companies added at least one online format between the start of the COVID pandemic and the time of the survey. Before the COVID pandemic, only 4% of the companies surveyed reported offering at least one interactive online service. It is all the more remarkable that after the start of the COVID crisis, 8% of the companies offered at least one additional service of this kind. The use of online formats and the offer of online services were additionally combined into one variable, both for the time before the COVID pandemic and for the time after the COVID pandemic.

Social media marketing was already used by about three-quarters of businesses prior to the COVID crisis and was a new addition for only 3% of businesses. One difference with regard to the questions on online formats and online services above is that only one question was asked for multiple social media services. Therefore, the use of a social media channel before the COVID pandemic (Facebook, Instagram, YouTube, Twitch, etc.) and another social media channel after the initial lockdown is not captured by the variable of new social media use (after the COVID pandemic began). Accordingly, the 3% of businesses using social media marketing since the start of the COVID pandemic did not use marketing via social media at all prior to the pandemic.

The survey also asked whether companies invested in training and continuing education during the COVID pandemic. This was the case for 51% of the companies.

#### 4.1.2 *Multivariate analysis*

The results in Table 2 (model 1) show first that corporate culture has deteriorated, especially in companies that have been hit hard by the crisis. If the survival of the company was in doubt, permanent staff had to be laid off or the company itself estimated that it had lost customers, the probability that the corporate culture had deteriorated was significantly higher by +9 to +15 percentage points on average. In addition, concern about the continued existence of the company is associated with a reduced probability (−8 percentage points) that the corporate culture has improved. This cannot be determined, or not significantly, for the dismissal of permanent staff and the loss of customers. In these cases, the proportion of companies with the same corporate culture is significantly lower, but the proportion of companies with an improved corporate culture is not significantly higher.

**Table 1** Frequency distribution of the characteristics from the survey of hairdressing businesses

		Quantity	Percentage
The pandemic has affected our corporate culture/the interaction of our employees.	Not changed	370	51
	Improved	166	23
	Deteriorated	185	26
I fear for the continued existence of my company.	Does not apply	309	41
	Does apply	449	59
I have fired permanent staff.	Does not apply	678	89
	Does apply	84	11
My company has lost customers.	Does not apply	198	28
	Does apply	499	72
Due to the pandemic, my company has changed its corporate organisation and structure.	No	256	34
	Yes	498	66
Already before COVID use of an online format (without interactive online services).	Does not apply	353	46
	Does apply	410	54
Since COVID, use of a new online format (without interactive online services).	Does not apply	566	74
	Does apply	197	26
Even before COVID offer an interactive online service.	Does not apply	732	96
	Does apply	31	4
Since COVID offer a new interactive online service.	Does not apply	701	92
	Does apply	62	8
Even before COVID use of an online format and/or an interactive online service.	Does not apply	348	46
	Does apply	415	54
Since COVID use of a new online format and/or interactive online service.	Does not apply	544	71
	Does apply	219	29
Even before COVID social media marketing (Facebook, Instagram, YouTube, Twitch, etc.).	Does not apply	172	24
	Does apply	554	76
Since COVID new social media marketing (Facebook, Instagram, YouTube, Twitch, etc.).	Does not apply	702	97
	Does apply	24	3
Education, training and continuing education (during COVID pandemic).	Does not apply	370	49
	Does apply	392	51

Source: Own representation and calculation

A connection between changes in the company organisation and restructuring on the one hand and a change in the company culture or the interaction of the employees on the other hand is obvious, but should not be neglected. If a change was made to the organisational structure of a company, the company culture also tended to change (−10 percentage points in the category ‘not changed’) and especially tended to deteriorate (+11 percentage points in the category ‘deteriorated’).<sup>2</sup>

The use of a new online format since the start of the COVID crisis and/or the offering of a new interactive online service is associated with a deteriorated corporate culture in a higher proportion (+10 percentage points) and it is unlikely that no change in corporate culture has taken place in this case (-16 percentage points). In order to check whether the initial level – i.e. the use of an online format even before the start of the COVID pandemic – also plays a role in this correlation. Accordingly, hairdressing companies with online formats and interactive online services introduced in the rather short term after the start of the COVID crisis, were not able to maintain their corporate culture, but rather had to deal with deteriorations in their corporate culture. Accordingly, the introduction of new online tools and/or services seems to have contributed to inconsistencies and problems in collaboration and corporate culture under the conditions of the COVID crisis.

In contrast, the introduction of social media marketing after the start of the COVID pandemic is a factor that positively influenced corporate culture (+27 percentage points for the ‘improved’ category) and is associated with a reduced probability of corporate culture deterioration (-19 percentage points). At the same time, the regression model controls whether social media marketing was already used before the start of the COVID pandemic. The characteristic shows no significant correlation with the change in corporate culture, but was left in the model as a control variable.

The provision of training and/or continuing education during the pandemic had a positive effect on the improvement of corporate culture (+7 percentage points for the ‘improved’ category).

In a second model (model 2 in Table 2), the use of (new) online formats and (new) interactive online services, which were combined into one variable in model 1, was examined separately. However, it should also be noted that both, the use of a new online format and the provision of a new interactive online service, are associated with a reduced probability of the corporate culture remaining the same (-14 and -17 percentage points). However, when viewed separately, the characteristics do not have a significant effect on the probability of a deterioration in corporate culture, but they do point in that direction, as in model 1. The smaller number of cases in which the characteristics are considered separately and the resulting lower statistical ‘power’ can explain this. Thus, the separate consideration of the characteristics does not allow any further conclusions at this point. Indirectly, however, it points to an interesting correlation: in contrast to the first model, the positive effect of education and training during the COVID pandemic on the improvement of corporate culture is not significant in the second model. This can be explained by the correlation of education/training and the introduction of new interactive online services: for example, 80.1% of companies that introduced a new interactive online service during the COVID pandemic also invested in education/training or continuing education during COVID. For companies that have introduced a new online format since the start of the COVID crisis, the corresponding percentage is much lower with 68.4%. Thus, model 2 justifies the approach chosen in model 1 of looking at online formats and interactive online services in aggregate and points to limits with regard to the further deepening of model 1.

**Table 2** Multinomial logistic regression of corporate culture/the interaction of employees in hairdressing companies

	<i>Model 1: corporate culture</i>			<i>Model 2: corporate culture</i>		
	<i>Not changed</i>	<i>Improved</i>	<i>Deteriorated</i>	<i>Not changed</i>	<i>Improved</i>	<i>Deteriorated</i>
I fear for the continued existence of my company.	-1.2	-8.0*	9.2**	-1.5	-7.7*	9.2**
I have laid off permanent staff.	-12.6*	0.8	11.8*	-12.3*	0.6	11.7*
My company has lost customers.	-10.8*	-4.4	15.1***	-10.7*	-4.3	15.1***
Because of the pandemic, my company has changed its corporate organisation and structure.	-9.8*	-1.5	11.3***	-9.8*	-1.5	11.3***
Already before COVID use of an online format or an online service.	-0.4	2.0	-1.6			
Since COVID use of a new online format or an online service.	-	6.3	9.7*			
	16.0***					
Already before COVID use of an online format (without online service).				-1.1	2.7	-1.6
Since COVID use of a new online format (without online service).				-13.8**	6.5	7.3
Already before COVID interactive online service.				9.7	-5.7	-4.0
Since COVID new interactive online service.				-16.6*	9.1	7.5
Already before COVID social-media marketing.	2.6	-2.4	-0.2	3.0	-2.9	-0.1
Since COVID new social media marketing.	-8.1	27.1*	-19.0**	-7.5	26.4*	-18.9**
Education and training since/during COVID.	-5.4	6.8*	-1.4	-5.1	6.3	-1.3
Case number		620			620	
Cragg and Uhler's R <sup>2</sup>		0.138			0.147	

Notes: \*\*\*p < 0.001, \*\*p < 0.01, \*p < 0.05, robust standard error.

AMEs – average marginal effects.

Source: Own representation and calculation

## 4.2 Quantitative results of the primary survey of flower shops

### 4.2.1 Frequencies

Table 3 shows the frequency distribution of the variables used. Most floristry businesses stated that the pandemic had not changed the corporate culture and the interaction between employees (62%). Slightly more companies reported a deterioration (20%) than an improvement (18%). Many companies feared for their continued existence (37%) or lost customers (58%). Slightly more than half of the companies have changed their organisation and structure (54%). These frequencies make it clear that the pandemic has represented, or still represents, a situation of upheaval and crisis for many of the companies surveyed.

About half of the businesses surveyed said they had already used at least one online format before the first lockdown, and 30% of the companies added at least one online format between the start of the COVID pandemic and the time of the survey.

An online store was available to 14% of floristry businesses prior to the COVID crisis, and this was a new addition for 19% of businesses. This illustrates that this service was in high demand due to the COVID crisis. Pick-up/Click & Collect was already widespread before the COVID crisis with a share of 45% and an equally high share newly introduced this after the lockdown. However, it remains unclear whether it was also possible to order offline, e.g. by telephone. A cooperation with Fleurop, which already existed before the first lockdown, was indicated by 59% of the floristry businesses and only one business added this during the COVID crisis. For this reason, this item alone is not suitable for evaluation and it was combined with online store and Click & Collect to form online services. Almost all florist companies (88%) have had a delivery service already before the COVID pandemic and another 5% added it during the COVID crisis. Only 1% had a vending store prior to the pandemic. The pandemic made this service more available, but even this percentage is low at 2%.

The survey also asked whether companies invested in hardware or software for online services during the COVID pandemic. This was the case for 36% of the companies.

**Table 3** Frequency distribution of the characteristics from the survey of floristry companies

		<i>Quantity</i>	<i>Percent</i>
The pandemic has changed our corporate culture/the interaction of our employees ...	Not changed	227	61.9
	Improved	67	18.3
	Deteriorated	73	19.9
I fear for the continued existence of my company.	Does not apply	236	62.9
	Applies	139	37.1
V246 due to the pandemic, my company has ... (Please tick as appropriate and then briefly describe if applicable). Response	No, I have not lost any customers	142	41.6
	Yes, I lost customers	199	58.4
As a result of the pandemic, my company has changed its corporate organisation and structure	No	171	46.6
	Yes	196	53.4

*Source:* Own representation and calculation

**Table 3** Frequency distribution of the characteristics from the survey of floristry companies (continued)

		<i>Quantity</i>	<i>Percent</i>
Even before COVID use of an online format	Does not apply	191	50.9
	Applies	184	49.1
Since COVID use of a new online format	Does not apply	262	69.9
	Applies	113	30.1
Online shop – even before the first lockdown	Does not apply	318	86.2
	Applies	51	13.8
New service offers since COVID: online shop	Does not apply	299	81.0
	Applies	70	19.0
Pick-up/Click & Collect – even before the 1st lock-down	Does not apply	204	55.3
	Applies		44.7
New service offers since COVID: pickup/Click & Collect	Does not apply		55.3
	Applies		44.7
Cooperation with FLEUROP – even before the 1st lock-down	Does not apply		40.7
	Applies		59.3
New service offers since COVID: cooperation with FLEUROP	Does not apply		99.7
	Does not apply		0.3
Delivery service – even before the 1st lockdown	Does not apply		11.9
	Applies		88.1
New service offers since COVID: delivery service	Does not apply		95.4
	Applies		4.6
Delivery service – even before the 1st lockdown	Does not apply		98.9
	Applies		1.1
New service offers since COVID: delivery service	Does not apply		98.1
	Applies		1.9
Delivery service – even before the 1st lockdown	Does not apply		97.0
	Applies		3.0
New service offers since COVID: delivery service	Does not apply		64.3
	Applies		35.7
Hardware/software for online services	Does not apply		64.3
	Applies		35.7

*Source:* Own representation and calculation

#### 4.2.2 Multivariate analysis

The results in Table 4 initially show that corporate culture deteriorated above all in companies that were hit hard by the crisis. If the continued existence of the company was in doubt or the company had lost customers according to its own assessment, the probability that the corporate culture had deteriorated was significantly higher by +9 to +13 percentage points on average. In addition, concerns about the continued existence of



the company and the loss of customers are associated with a reduced probability (−10 and −9 percentage points respectively) that the corporate culture has improved.

A correlation between changes in the company organisation and restructuring on the one hand and a change in the corporate culture or the interaction between employees on the other hand may be obvious but should not be neglected. If a change was made to the company organisation, the corporate culture was more likely to change (−25 percentage points in the ‘not changed’ category) and more likely to deteriorate (+14 percentage points) or also improve (+11 percentage points).

The use of an online format even before the COVID crisis is associated with a change in corporate culture to a bigger extent (ten percentage points for the category ‘not changed’). To control whether the new introduction of online formats also plays a role, this variable was also included in the model and left in the model despite insignificant results. However, it can be seen that an investment in hardware or software during the COVID crisis tended ( $p < 0.1$ ) to lead to an improvement in corporate culture.

Accordingly, floristry businesses that were already using online formats before the COVID pandemic were more likely to have experienced a change in corporate culture because of the COVID crisis, without this change being clearly positive or negative. Rather, an improvement can be identified if investments were made in hardware or software for online services during the COVID crisis. Digital business models are therefore (even or even more so) not a foregone conclusion during the COVID pandemic, but require further investment.

**Table 4** Multinomial logistic regression of corporate culture/the interaction of employees in floristry companies

		<i>The pandemic has corporate culture/employee interaction ...</i>		
		<i>Not changed</i>	<i>Improved</i>	<i>Deteriorated</i>
I fear for the continued existence of my company.	Applies (ref: does not apply)	0.6	−9.8*	9.2*
Due to the pandemic, my company has lost customers	Applies (ref: does not apply)	−3.9	−9.1 <sup>+</sup>	12.9**
Due to the pandemic, my company has changed its corporate organisation and structure	Applies (ref: does not apply)	−24.5***	10.5*	14.0**
Before COVID use of an online format	Applies (ref: does not apply)	−10.0 <sup>+</sup>	3.1	6.9
Since COVID use of a new online format	Applies (ref: does not apply)	−7.7	3.6	4.1
Investment in hardware/software for online offerings	Applies (ref: does not apply)	−6.2	8.0 <sup>+</sup>	−1.8
Observations			327	
Cragg and Uhler’s R2			0,192	

Notes: \*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$ , <sup>+</sup> $p < 0.1$ , robust standard error.

AMEs – average marginal effects.

Source: Own representation and calculation

The regression of the change in corporate culture or the interaction of employees on the services offered did not yield significant results or was not feasible in part due to small case numbers (e.g., for vending machine stores).

### 4.3 Results of the qualitative content analysis

In order to get a deeper understanding, if and how the external shock of the COVID-19 pandemic as well as the induced digitalisation has impacted on the workforce of hairdressing and floristry businesses, the person-organisation fit and alienation effects, an open question was used in the survey (Carnevale and Hatak, 2020; Kristof-Brown et al., 2005).

#### 4.3.1 Results for hair salons

The open-ended responses were analysed separately according to the following response options of the interviewees: *the pandemic has improved/not changed/deteriorated our corporate culture/the interaction of our employees*.

The answers were transcribed into superordinate topic terms and then superordinate categories were formed in order to be able to identify statement focal points.

Few statements were incomprehensible in terms of content. They were not included in the evaluation. Likewise, answers that were given, for example, under the heading 'improved' but contained a statement about deterioration (and vice versa) were not included.

The cleaned dataset for analysis of responses of hairdressing entrepreneurs to *the pandemic has improved our corporate culture/employee interaction* includes 119 entries.

The six most frequently mentioned topics describing the type of improvement in corporate culture/cooperation are improved cooperation (n = 78), improved communication (n = 14), increased appreciation (n = 11), mutual support (n = 8), greater commitment (n = 8) and consideration (n = 8).

When looking at the category coding mainly used, the participating hair salons predominantly mentioned that improvements had been made in the corporate culture in the context of *team spirit, interaction with one another, work motivation, improvements in terms of impact on structure, processes & offerings* and *team composition*. *Customer feedback* also had a positive impact.

The adjusted dataset for the evaluation for responses to *the pandemic has deteriorated our corporate culture/the interaction of our employees* comprises 136 entries.

The eight most frequently mentioned topics describing the type of deterioration in corporate culture/collaboration are reduced collaboration with colleagues (n = 26), lack of personal interaction (n = 21), reduced communication within the team (n = 13), lack of social contacts (n = 12), elimination of common socially empowering activities (n = 11), social disruption in the team (n = 11), poor mood (n = 11) and additional expense due to hygiene requirements (n = 11).

Most of the statements can be assigned to the category *stressful emotions; fear of the future/existence; social isolation*; followed by negative effects on *team spirit; interaction with each other; work motivation*. Negative influences on the *interaction/corporate culture such as impact on structure, processes, offers and team composition; financial losses; additional expenses; decline in customers* as well as *customer feedback*, on the other hand, seem to play a lesser role.

When trying to combine the statements with spheres of alienation, most statements seem to be related to alienation in social interaction.

For the better classification and evaluation of the supplied answers, categories were grouped again, in order to make content wise connections and important aspects visible.

Since the open answers given under the heading *the pandemic has not changed our corporate culture/the interaction of our employees* do contain statements about improved or deteriorated aspects of the corporate culture/the interaction of employees, the statements are not evaluated here.

#### 4.3.2 Results for flower shops

The open-ended responses received from floristry entrepreneurs were analysed in the same manner like the responses from hairdressers. The open-ended responses were analysed separately according to the following response options of the interviewees: *the pandemic has improved/deteriorated our corporate culture/the interaction of our employees*.

The cleaned dataset for the analysis of responses to *the pandemic has improved our corporate culture/employee interaction* includes 53 entries.

The six most frequently mentioned topics describing the type of improvement in corporate culture/cooperation are improved team cohesion (n = 33), thoughtfulness (n = 8), understanding (n = 8), improved communication (n = 5), gratitude for secure workplace (n = 5) and flexibility (n = 5).

The participating florists unanimously mentioned that improvements had been made in the corporate culture in the context of *team spirit, interaction with one another and work motivation*.

Fifty-six entries received from the participating florists have been analysed for the question *the pandemic has deteriorated our corporate culture/the interaction of our employees*.

The most frequently mentioned topics describing the type of deterioration in corporate culture/collaboration are reduced collaboration with colleagues (n = 13), lack of personal interaction (n = 8), fear of job loss (n = 7), poor mood (n = 7), tension (n = 6) and frustration (n = 5).

Like the hairdressing entrepreneurs, the statements of floristry entrepreneurs can be assigned to the category *stressful emotions; fear of the future/existence; social isolation*; followed by negative effects on *team spirit; interaction with each other; work motivation*. Negative influences on the interaction/corporate culture such as *impact on structure, processes, offers and team composition* on the other hand, seem to play a lesser role. According to possible spheres of alienation, the majority of statements of floristry businesses can be assigned to alienation in social interaction as well.

## 5 Discussion

The research questions *has the pandemic changed the corporate culture/interaction of employees in hairdressing and floristry businesses?, does this have an impact on the person-organisation fit? and how can pandemic-related changes in the corporate culture/in-house interaction in hair salons and flower shops be assessed against the background of digital adaptation processes from the perspective of alienation?* cannot be

answered completely unambiguously, even by the results of the quantitative analysis. For hair salons, a significant correlation between the introduction of new online formats and/or interactive online services after the start of the COVID pandemic and a deterioration in corporate culture and employee interaction could be detected. Furthermore, a positive correlation of the introduction of social media marketing after the first lockdown with an improvement of the corporate culture or the interaction of the co-workers can be observed. It should be noted, however, that the results of the regression analyses could not be readily interpreted as causal effects because they are cross-sectional data (with some retrospective questions). The question about possible changes due to the COVID pandemic was posed for one time period only, namely retrospectively for the period from the beginning of the COVID crisis until the time of the survey. This means that it is not possible to determine whether a change in corporate culture occurred or whether new technologies or services were introduced first. Thus, it could be assumed that companies that experienced a deterioration in corporate culture due to the challenges of the COVID pandemic tried out new interactive online services or new technologies such as new online formats for this very reason. It cannot be determined on the basis of the available data, which interpretation is more appropriate. However, both interpretations indicate that hairdressing companies have generally not succeeded in avoiding a change in corporate culture with an uncertain outcome or in achieving an improvement in corporate culture by introducing new online formats or interactive online services. The influence of social media marketing on corporate culture in hair salons is not self-evident. As found in the literature review, on the one hand, social media has potential for alienation (Rosa, 2003, 2010); at the same time, however, it can also increase identification with the company (Men et al., 2020). Moreover, in the crisis of the COVID pandemic, a certain sense of optimism and a strengthening of cohesion during the crisis could favour a positive effect of social media marketing on identification with the company. In addition, it can be assumed that both the managing directors and the staff and employees can relate better with advertising via social media, which have now become an integral part of life, than with other digital forms of work. The fact that social media marketing is associated with positive changes in corporate culture/employee interaction, but the introduction of new online formats and interactive services is not, may also be due to the high cost of the latter. In particular, the introduction of new online services is likely to bring new demands on staff skills and organisational challenges.

It is interesting to note that the online formats and/or interactive online services already used and/or social media marketing used before the COVID pandemic had no influence on whether and how the corporate culture or the interaction between employees in hairdressing businesses changed. This suggests that these effects do not emanate primarily from digital technologies as such and that it is a matter of change processes in connection with their introduction. Accordingly, the correlations could be due to the special situation in the COVID crisis. At the same time, however, it is also plausible that – even independently of the COVID pandemic – the introduction phase of new digital technologies poses a particular challenge and is followed by stabilisation.

In the case of floristry businesses, the results are different: longer use of online formats is more likely to be accompanied by a change in corporate culture or in the interaction between employees, but there is no clear evidence of an improvement or deterioration in corporate culture. This underscores the importance of digital technologies as a catalyst and that it depends on the design of the use of technology and its framework

conditions. Furthermore, a positive correlation of investments in hardware or software during the pandemic on the corporate culture can be observed. Harnessing the positive potential of digital work for corporate culture and teamwork is apparently more likely to succeed if investments are also made in this area. On this basis, it is neither possible to clearly prove nor disprove alienation due to pandemic-related digitisation in the logistics industry.

It should be noted, however, that the results of the regression analyses in both surveys could not be readily interpreted as causal effects, because the data are cross-sectional (with some retrospective questions).

The question about the change of the COVID pandemic was only asked for one period, namely retrospectively for the time from the beginning of the COVID crisis until the survey. This makes it impossible to determine whether the independent variables, such as the company's economic framework and the services offered, changed first, or whether there was a change in the company's culture first. Thus, it could be assumed that companies that experienced a deterioration in corporate culture due to the challenges of the COVID pandemic tried out new services or new technologies such as new online formats for this very reason. The results for floristry companies are also somewhat limited by the number of cases. As a result, it may not have been possible to demonstrate significant relationships of existing or newly introduced services to changes in organisational culture or staff interactions. Due to low case numbers (cooperation with Fleurop, vending machine store), not all services of the floristry businesses could be examined individually or in relation to their introduction during the COVID crisis.

The research question posed at the beginning, *has the pandemic changed the corporate culture/interaction of employees in hairdressing and floristry businesses? Does this have an impact on the person-organisation fit? Does this impact on the person-organisation fit?* cannot be answered clearly for the evaluation part of the qualitative content analysis. Both positive and negative changes can be identified. On the one hand, there are effects at the level of team spirit, work motivation and interaction with one another. In addition, structures, processes of cooperation as well as service offers were subject to strengthening as well as weakening influences. Even though the majority of the participating companies reported an improved team spirit, many companies described stressful emotions, social isolation and fear of the future/existence as a significant effect. Giving the disruptions and challenges that were imposed by the COVID-19 pandemic on organisations such as hair salons and flower shops, it can be assumed that some organisations managed to handle the arising changes better than others did.

With regard to the qualitative analysis of the research question *how can pandemic-related changes in the corporate culture/in-house interaction in hair salons and flower shops be assessed against the background of digital adaptation processes from the perspective of alienation?* and the reported negative impacts, it can be assumed that alienation in the spheres of work products, work processes, social interaction and performing abilities has taken place (Bayram et al., 2017; Rosa, 2003, 2010). The sensual experience, which arises with the offered services, for employees and customers, is influenced by the changed working conditions in the pandemic or sometimes even fails to occur and leads to negative emotions (Hardering, 2021; Laaser and Karlsson, 2022; Tarafdar et al., 2011).

The social interaction between colleagues but also with clients seems to be most affected, which consequently also influenced on working processes. This is not surprising

due the lockdown situation and restrictions described before. Also, the features of the person-organisation fit approach (Kristof-Brown et al., 2005; Kristof, 1996), seem to be impacted or might have experienced disruptions, which in some organisations has led to person-organisation misfits and resulted in deteriorated corporate culture/interaction (Carnevale and Hatak, 2020; Chawla et al., 2020).

The set-up of the survey questions makes it difficult to say, whether the alienation has led to this misfit or vice-versa or whether there is a causal relationship at all.

Nevertheless, both hairdressing and floristry companies that reported such negative impacts, are still challenging to overcome this misfit.

The omission of the usual joint work, hand-in-hand work and social exchange with customers as well as with colleagues as an element of the working environment and a component of a visit to a hair salon or flower shop play a major role here. Whether, for example, there is a causality between social changes and changes in structure, processes and offers was not explicitly investigated, but can be assumed. The extent to which the other components of alienation through digitisation named by Rosa (2003, 2010), such as alienation from one's own actions, alienation from time; alienation from things, alienation from things and self-alienation, also have an influence on the interaction of employees and the corporate culture cannot be validly deduced on the basis of the questions asked and answers received. However, that they can come into play can be anticipated from the answers received. Nevertheless, aspects of alienation also seem to have an effect on customers. Reasons for that can be only assumed and need to be investigated further. Whether fear of becoming ill or passing on the disease had a dominant effect on the behaviour of employees and customers here cannot be answered conclusively. Due to the circumstances of the pandemic, the increased use of digitisation tools was of existential importance for many hairdressing and floristry businesses, as it was only made possible in some cases to work and thus secure their existence. Additional expenditure and financial losses were named interestingly only in few cases in the context of deterioration of the corporate culture/collaboration. According to the FDF [Association of German Florists (Fachverband Deutscher Floristen (FDF))], the online services introduced should be maintained and expanded even in post-pandemic times. However, sales, advice and customer contact on site cannot be replaced because of the sensory experience associated with them (Onlinehändler News, 2021). For hairdressing businesses, this two-pronged approach can also be assumed beyond the COVID pandemic. Financial improvements were also only mentioned in individual cases in connection with improvements in corporate culture/cooperation.

## **6 Conclusions**

This article looks at organisational adjustments in the service sector in the age of the COVID-19 pandemic from the perspective of alienation due to necessary digital changes. Core element of this study is a primary analysis based on a survey of German hairdressing and floristry businesses.

As a conclusion, the following results can be highlighted again for hairdressing companies:

- 1 digitisation in the form of new online formats and/or interactive online services has led to a deterioration in the corporate culture/interaction of employees in the hair salons
- 2 the pandemic introduction of social media marketing is an exception here, as it has led to an improvement in corporate culture/employee interaction
- 3 training, development, and continuing education lead to improvement in corporate culture/employee interaction (hair salons that offer new online services due to the pandemic must also offer their employees training and continuing education in this area).

In conclusion, it can be said that the pandemic-related digitalisation in hairdressing businesses certainly leads to an alienation of employees from their profession.

The findings of the floristry companies are different, and can be summarised as follows:

- 1 Longer-term digitalisation in the form of new online formats has contributed to a change in the corporate culture/interaction of employees in floristry companies.
- 2 However, the direction of impact of new online formats on corporate culture/employee interaction is open. Thus, more information on the design and framework is needed to conclude whether corporate culture has improved or deteriorated.
- 3 However, investments in hardware or software for online services tended to improve corporate culture in German florist businesses during the pandemic. Thus, alienation due to pandemic-related digitisation in floristry businesses can be neither clearly proven nor disproven.

The different results in terms of digital tools and services in the hair salons and flower shops may also be related to the nature of the job. Working not only with but also on the customer is much more central for hairdressing businesses as a personal and body-related service than for floristry companies, which is a factual service. Digitisation is thus taking place in different contexts under different conditions. For research, this means that much more attention needs to be paid to the exact contextual factors and more comparative studies are needed.

Despite the different results, it can be stated for both hairdressing and floristry companies that pandemic-driven digitisation in both industries was accompanied by both positive and negative effects on cooperation within the company. Positive effects include investments in the form of hardware, software and training.

Based on that key challenges can be derived for SMEs in the service sector, which are also likely to be valid far beyond the hairdressing and floristry sector. It is crucial to stimulate new thoughts and approaches in the organisation and to emphasise digital transformation as a necessary step. Analogue and digital processes must be brought closer together. The introduction of new technologies in particular is a critical phase that requires accompanying measures and good leadership. In addition, employees must accept and live the digital transformation in order to seize the opportunities offered by digital business model innovations. At the same time, it might be necessary to study and recognise the limits and/or downfalls of digitalisation. In addition, how strengthening analogue services and digital processes at the same time needs further investigation.

Besides that, the impact of leadership on resilience and the person-organisation fit and alienation might be investigated further as well (Haider et al., 2022; Jie et al., 2021; Liu and Xie, 2023).

The study conducted is subject to a number of restrictions that must be taken into account when discussing the results. One of these is the cross-sectional nature of the data, which cannot provide clear statistical evidence of causal relationships and must also be based on theoretical plausibility.

A deeper understanding of causal relationships between pandemic-related restrictions, digitisation, changes in person-organisation fit and alienation, using the example of hairdressing and floristry businesses, could be developed through future research activities in this area, e.g., in order to be able to derive more concrete recommendations for action for these businesses. Likewise, the investigation of digitally-based business model innovations in companies in the sector as well as other labour science issues can provide important insights for digitisation approaches in the skilled trades. In-depth case studies could be suitable methodological starting points here.

## References

- Abbas, J., Muzaffar, A., Mahmood, H.K., Ramzan, M.A. and Rizvi, S.S.U.H. (2014) 'Impact of technology on performance of employees. A case study on Allied Bank Ltd, Pakistan', *World Applied Sciences Journal*, Vol. 29, No. 2, pp.271–276, <https://doi.org/10.5829/idosi.wasj.2014.29.02.1897>.
- Abdul-Halim, H. (2018) 'Innovation culture in SMEs: the importance of organizational culture, organizational learning and market orientation', *Entrepreneurship Research Journal*, Vol. 9, No. 3, p.e20170014, <https://doi.org/10.1515/erj-2017-0014>.
- Almeida, F., Santos, D.J. and Monteiro, J.A. (2020) 'The challenges and opportunities in the digitalization of companies in a post-COVID-19 world', *IEEE Engineering Management Review*, Vol. 48, No. 3, pp.97–103, <https://doi.org/10.1109/EMR.2020.3013206>.
- Anacleto, A. and Bornancin, A.P.A., Mendes, S.H.C. and Scheuer, L. (2020) 'Between flowers and fears: the new coronavirus pandemic (COVID-19) and the flower retail trade', *Ornamental Horticulture*, Vol. 27, No. 1, pp.26–32, <https://doi.org/10.1590/2447-536X.v27i1.2232>.
- Argyris, C. and Schön, D.A. (1996) *Organizational Learning II: Theory, Method and Practice*, Addison-Wesley, Reading.
- Baghiu, M.C. (2020) 'Analysis of business model innovation in post-COVID economy. determinants for success', *Journal of Public Administration, Finance and Law*, Vol. 17, pp.7–24 [online] [https://www.jopafll.com/uploads/issue17/ANALYSIS\\_OF\\_BUSINESS\\_MODEL\\_INNOVATION\\_IN\\_POSTCOVID\\_ECONOMY\\_DETERMINANTS\\_FOR\\_SUCCESS.pdf](https://www.jopafll.com/uploads/issue17/ANALYSIS_OF_BUSINESS_MODEL_INNOVATION_IN_POSTCOVID_ECONOMY_DETERMINANTS_FOR_SUCCESS.pdf) (accessed 20 January 2021).
- Barrick, M.R., Mount, M.K. and Li, N. (2017) 'The theory of purposeful work behavior: the role of personality, higher-order goals, and job characteristics', *Academy of Management Review*, Vol. 38, No. 1, pp.132–153, <https://doi.org/10.5465/amr.2010.0479>.
- Baş, M. (2021) 'The effect of person-organization fit on resilience: a research in the COVID-19 pandemic', *7th International Conference on Business and Economic Studies, Conference Proceedings*, 4–5 September, Erzurum, Turkey.
- Battisti, E., Alfiero, S. and Leonidou, E. (2022) 'Remote working and digital transformation during the COVID-19 pandemic: economic-financial impacts and psychological drivers for employees', *Journal of Business Research*, Vol. 150, pp.38–50, <https://doi.org/10.1016/j.jbusres.2022.06.010>.



- Bayram, A., Tabuk, M.E. and Aknar, A. (2017) 'The effects of person-job fit and person-organization fit on work alienation', in Stanciu, S. et al. (Eds.): *Business and Financial Strategies*, Chapter 9, pp.158–173, LAMBERT Academic Publishing, Mauritius.
- Bello, J., Collins, S., Dreischmeier, R. and Libarikian, A. (2020) *Innovating from Necessity: The Business-Building Imperative in the Current Crisis*, McKinsey Digital [online] <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/innovating-from-necessity-the-business-building-imperative-in-the-current-crisis> (accessed 20 January 2021).
- Berufsgenossenschaft für Gesundheitsdienst und Wohlfahrtspflege (BGW) (2021a) *SARS-CoV-2 Arbeitsschutzstandard Friseurhandwerk* [online] [https://www.bgw-online.de/SharedDocs/Downloads/DE/Branchenartikel/SARS-CoV-2-Arbeitsschutzstandard-Friseurhandwerk\\_Download.pdf](https://www.bgw-online.de/SharedDocs/Downloads/DE/Branchenartikel/SARS-CoV-2-Arbeitsschutzstandard-Friseurhandwerk_Download.pdf) (accessed 24 January 2021).
- Berufsgenossenschaft für Gesundheitsdienst und Wohlfahrtspflege (BGW) (2021b) *Corona SARS-CoV-2 Arbeitsschutzstandard Friseurhandwerk* [online] [https://www.bgw-online.de/SharedDocs/Downloads/DE/Corona/SARS-CoV-2-Arbeitsschutzstandard-Friseurhandwerk\\_Download.pdf?\\_\\_blob=publicationFile](https://www.bgw-online.de/SharedDocs/Downloads/DE/Corona/SARS-CoV-2-Arbeitsschutzstandard-Friseurhandwerk_Download.pdf?__blob=publicationFile) (accessed 24 January 2021).
- Berufsgenossenschaft für Gesundheitsdienst und Wohlfahrtspflege (BGW) (2021c) *Hautschutzplan-Friseure* [online] [https://www.bgw-online.de/SharedDocs/Downloads/DE/Medientypen/BGW%20Broschueren/BGW06-13-090\\_Hautschutzplan-Friseure\\_Download.pdf?\\_\\_blob=publicationFile](https://www.bgw-online.de/SharedDocs/Downloads/DE/Medientypen/BGW%20Broschueren/BGW06-13-090_Hautschutzplan-Friseure_Download.pdf?__blob=publicationFile) (accessed 24 January 2021).
- Bhatt, V., Sujo, Th., Chauhan, D. and Patel, R. (2024) 'Investigating the impact of organisation culture, personal-job fit and employee engagement on turnover intention: an assessment of the IT sector from an emerging market perspective', *International Journal of Economics and Business Research*, Vol. 27, No. 2, pp.310–323, <https://doi.org/10.1504/IJEBR.2024.136498>.
- Boylan, S.A. and Turner, K.A. (2017) 'Developing organizational adaptability for complex environment', *Journal of Leadership Education*, Vol. 16, No. 2, pp.183–198, <https://doi.org/10.12806/V16/I2/T2>.
- Brown, K.R., Berkel, P. v., Khan, F.I. and Amyotte, P.R. (2021) 'Application of bow tie analysis and inherently safer design to the novel coronavirus hazard', *Process Safety and Environmental Protection*, Vol. 152, pp.701–718, <https://doi.org/10.1016/j.psep.2021.06.046>.
- Bullock, A., Colvin, A.D. and Jackson, M.S. (2022) 'Zoom fatigue in the age of COVID-19', *Journal of Social Work in the Global Community*, Vol. 6, No. 1, p.e07.1.01, <https://doi.org/10.5590/JSWGC.2022.07.1.01>.
- Carnevale, J.B. and Hatak, I. (2020) 'Employee adjustment and well-being in the era of COVID-19: implications for human resource management', *Journal of Business Research*, Vol. 116, pp.183–187, <https://doi.org/10.1016/j.jbusres.2020.05.037>.
- Chatman, J.A. (1989) 'Improving interactional organizational research: a model of person-organization fit', *Academy of Management Review*, Vol. 14, No. 3, pp.333–349, <https://doi.org/10.2307/258171>.
- Chatman, J.A. (1991) 'Matching people and organizations: selection and socialization in public accounting firms', *Administrative Science Quarterly*, Vol. 36, No. 3, pp.459–484, <https://doi.org/10.2307/2393204>.
- Chawla, N., MacGowan, R.L., Gabriel, A.S. and Podsakoff, N.P. (2020) 'Unplugging or staying connected? Examining the nature, antecedents, and consequences of profiles of daily recovery experiences', *Journal of Applied Psychology*, Vol. 105, No. 1, pp.19–39, <https://doi.org/10.1037/apl0000423>.
- Chen, L-C. and Huang, L-C. (2020) 'The motivation, strategies, and barriers for adopting social media marketing in the flower retailing business', *Horticulturae*, Vol. 6, No. 4, p.e6040080, <https://doi.org/10.3390/horticulturae6040080>.
- Cijan, A., Jenič, L., Lamovšek, A. and Stemberger, J. et al. (2019) 'How digitalization changes the workplace', *Dynamic Relationships Management Journal*, Vol. 8, No. 1, pp.3–12, <https://doi.org/10.17708/DRMJ.2019.v08n01a01>.

- Damar, A. and Celik, A. (2017) 'The mediating role of person organization fit on the effect of organizational justice on work alienation', *International Journal of Management Economics and Business, CMEB17 Special Issue*, pp.854–866, <https://doi.org/10.17130/ijmeh.2017ICMEB1735495>.
- Dostal, J.M. (2020) 'Governing under pressure: German policy making during the coronavirus crisis', *The Political Quarterly*, Vol. 91, No. 3, pp.542–552, <https://doi.org/10.1111/1467-923X.12865>.
- Elbogen, E.B., Lanier, M., Griffin, S.C., Blakey, S.M., Gluff, J.A., Wagner, H.R. and Tsai, J. (2022) 'A national study of zoom fatigue and mental health during the COVID-19 pandemic: implications for future remote work', *Cyberpsychology, Behavior, and Social Networking*, Vol. 25, No. 7, pp.409–415, <https://doi.org/10.1089/cyber.2021.0257>.
- Elcheroth, G. and Drury, J. (2020) 'Collective resilience in times of crisis: lessons from the literature for socially effective responses to the pandemic', *British Journal of Social Psychology*, Vol. 59, No. 3, pp.703–713, <https://doi.org/10.1111/bjso.12403>.
- Etheredge, C.L. and DelPrince, J. (2021) 'Retail florists use novel sales approaches during the COVID-19 pandemic', *HortTechnology*, Vol. 31, No. 6, pp.786–792, <https://doi.org/10.21273/HORTTECH04920-21>.
- Fachverband Deutscher Floristen (FdF) Landesverband Sachsen e.V. (2022) *Aktualisierte Arbeitsschutz- und Hygienekonzept Arbeitsmittel* [online] <https://floristen-sachsen.de/aktualisierte-arbeitsschutz-und-hygienekonzept-arbeitsmittel/> (accessed 17 February 2022).
- Florişteanu, E. (2020) 'Possible economic and social effects generated by the COVID-19 crisis', *International Conference Knowledge-Based Organization*, Vol. 26, No. 2, pp.23–30, <https://doi.org/10.2478/kbo-2020-0048>.
- Follmer, E.H., Talbot, D.L., Kristof-Brown, A.L., Astrove, S.L. and Billsberry, J. (2018) 'Resolution, relief, and resignation: a qualitative study of responses to misfit at work', *Academy of Management Journal*, Vol. 61, No. 2, pp.440–465, <https://doi.org/10.5465/amj.2014.0566>.
- Fraser, M.W., Richman, J.M. and Galinsky, M.J. (1999) 'Risk, protection and resilience: toward a conceptual framework for social work practice', *Social Work Research*, Vol. 23, No. 3, pp.129–208, <http://dx.doi.org/10.1093/swr/23.3.131>.
- Greer, T.W. and Payne, S.C. (2014) 'Overcoming telework challenges. outcomes of successful telework strategies', *The Psychologist-Manager Journal*, Vol. 17, No. 2, pp.87–111, <https://doi.org/10.1037/mgr0000014>.
- Haider, S.A., Akbar, A., Tehseen, S., Poulouva, P. and Jaleel, F. (2022) 'The impact of responsible leadership on knowledge sharing behavior through the mediating role of person-organization fit and moderating role of higher educational institute culture', *Journal of Innovation & Knowledge*, Vol. 7, No. 4, p.e100265, <https://doi.org/10.1016/j.jik.2022.100265>.
- Hamouche, S. (2023) 'Human resource management and the COVID-19 crisis: implications, challenges, opportunities, and future organizational directions', *Journal of Management & Organization*, Vol. 29, pp.799–814, <https://doi.org/10.1017/jmo.2021.15>.
- Hardering, F. (2021) 'Von der Arbeit 4.0 zum Sinn 4.0? Über das Sinnerleben in der Arbeit in Zeiten der Digitalisierung', *Österreichische Zeitschrift für Soziologie (ÖZS)*, Vol. 46, pp.27–44, <https://doi.org/10.1007/s11614-020-00439-4>.
- Hausberg, J.P., Liere-Netheler, K., Packmohr, S., Pakura, S. and Vogelsang, K. (2019) 'Research streams on digital transformation from a holistic business perspective: a systematic literature review and citation network analysis', *Journal of Business Economics*, Vol. 89, pp.931–963, <https://doi.org/10.1007/s11573-019-00956-z>.
- Heinonen, K. and Strandvik, T. (2020) 'Reframing service innovation. COVID-19 as a catalyst for imposed service innovation', *Journal of Service Management*, Vol. 32, No. 1, pp.101–112, <https://doi.org/10.1108/JOSM-05-2020-0161>.

- Jie, X., Yunfeng, T. and Wenhao, J. (2021) 'Will quantum leadership improve employee workplace well-being in the context of epidemic uncertainty? The role of person-organization fit and emotional exhaustion', *Journal of Shanghai University of Finance and Economics*, Vol. 23, No. 1, pp.15–26, <https://doi.org/10.16538/j.cnki.jsufe.2021.01.002>.
- Kozhina, A.A. and Vinokurov, L.V. (2020) 'Work alienation during COVID-19. Main factors and conditions (an example of university professors)', *Psychology in Russia: State of the Art*, Vol. 13, No. 4, pp.106–118, <https://doi.org/10.11621/pir.2020.0407>.
- Kristof, A. (1996) 'Person-organization fit: an integrative review of its conceptualizations, measurement, and implications', *Personnel Psychology*, Vol. 49, No. 1, pp.1–49, <https://doi.org/10.1111/j.1744-6570.1996.tb01790.x>.
- Kristof-Brown, A., Zimmerman, R.D. and Johnson, E.C. (2005) 'Consequences of individuals' fit at work: a meta-analysis of person-job, person-organization, person-group, and person-supervisor fit', *Personnel Psychology*, Vol. 58, No. 2, pp.281–342, <https://doi.org/10.1111/j.1744-6570.2005.00672.x>.
- Laaser, K. and Karlsson, J.C. (2022) 'Towards a sociology of meaningful work', *Work, Employment and Society*, Vol. 36, No. 5, pp.798–815, <https://doi.org/10.1177/09500170211055998>.
- Leo, G.d. and Sardanelli, F. (2020) 'Statistical significance: p value, 0.05 threshold, and applications to radiomics reasons for a conservative approach', *European Radiology Experimental*, Vol. 4, No. 18, p.e0145-y, <https://doi.org/10.1186/s41747-020-0145-y>.
- Liu, X. and Xie, C.P. (2023) 'How person-organization fit impacts work performance: evidence from researchers in ten countries during the COVID-19', *Sustainability*, Vol. 15, No. 13, p.e9866, <https://doi.org/10.3390/su15139866>.
- Long, J.S. and Freese, J. (2014) *Regression Models for Categorical Dependent Variables Using Stata*, College Station, Texas.
- Marx, K. (1867) *Das Kapital: Kritik der politischen Ökonomie*, Köln, Otto Meissner, Hamburg.
- Marx, K. (2019) *Das Kapital (Capital): A Critique of Political Economy*, Benediction Classics, Garsington.
- Mayring, Ph. (1983) *Qualitative Inhaltsanalyse. Grundlagen und Techniken*, Beltz, Weinheim, Basel.
- Mayring, Ph. (2021) *Qualitative Content Analysis: A Step-by-Step Guide*, SAGE Publishing, London.
- McCann, H. (2022) "'Very unsure of what's to come': salon worker experiences of COVID-19 in Australia during 2020', *Current Sociology*, p.e129315, <https://doi.org/10.1177/00113921221129315>.
- Mehta, P. (2022) 'Work alienation as a mediator between work from home-related isolation. Loss of task identity and job insecurity amid the COVID-19 pandemic', *International Journal of Workplace Health Management*, Vol. 15, No. 3, pp.287–306, <https://doi.org/10.1108/IJWHM-03-2021-0070>.
- Men, L.R., O'Neil, J. and Ewing, M. (2020) 'Examining the effects of internal social media usage on employee engagement', *Public Relations Review*, Vol. 46, No. 2, p.e101880, <https://doi.org/10.1016/j.pubrev.2020.101880>.
- Norton, E.C. and Dowd, B.E. (2018) 'Log odds and the interpretation of logit models', *Health Services Research*, Vol. 53, No. 2, pp.859–878, <https://doi.org/10.1111/1475-6773.12712>.
- O'Reilly, C.A., Chatman, J. and Caldwell, D.F. (1991) 'People and organizational culture: a profile comparison approach to assessing person-organization fit', *Academy of Management Journal*, Vol. 34, No. 3, pp.487–516, <https://doi.org/10.2307/256404>.
- Onlinehändler News (2021) *In der Krise hat der Online-Handel den Umsatz aufgefangen* [online] <https://www.onlinehaendler-news.de/online-handel/haendler/134953-krise-online-handel-umsatz-aufgefangen> (accessed 17 February 2022).

- Öztaş, D., Akgün, Ş., Uymaz, P. and Özpulat, F. (2023) 'Determination of the depression, anxiety and stress levels of hairdressers during the COVID-19 pandemic and the associated factors', *International Archives of Integrated Medicine*, Vol. 10, No. 4, pp.35–45 [online] <https://avesis.ankara.edu.tr/yayin/2971c7d6-b59e-4cbe-aa81-e510ef793831/determination-of-the-depression-anxiety-and-stress-levels-of-hairdressers-during-the-covid-19-pandemic-and-the-associated-factors> (accessed 20 January 2021).
- Pilawa, J., Witell, L., Valtakoski, A. and Kristensson, P. (2022) 'Service innovativeness in retailing: increasing the relative attractiveness during the COVID-19 pandemic', *Journal of Retailing and Consumer Services*, Vol. 67, <https://doi.org/10.1016/j.jretconser.2022.102962>.
- Priyono, A., Moin, A. and Putri, V.N.A.O. (2020) 'Identifying digital transformation paths in the business model of SMEs during the COVID-19 pandemic', *Journal of Open Innovation: Technology, Market, and Complexity*, Vol. 6, No. 4, p.e6040104, <https://doi.org/10.3390/joitmc6040104>.
- Roša, A. (2021) 'Exploring the role of ethical issues in the context of digital transformation', *Trends Economics and Management*, Vol. 15, No. 38, pp.23–33, <https://doi.org/10.13164/trends.2021.38.23>.
- Roša, A. and Lobanova, L. (2022) 'Ethical responsibility of a company in the context of digital transformation of work: conceptual model', *Sustainability*, Vol. 14, No. 18, p.e11365, <https://doi.org/10.3390/su141811365>.
- Rosa, H. (2003) 'Social acceleration: ethical and political consequences of a de-synchronized high-speed society', *Constellations*, Vol. 10, No. 1, pp.3–33, <https://doi.org/10.1111/1467-8675.0030>.
- Rosa, H. (2010) *Alienation and Acceleration: Towards a Critical Theory of Late-modern Temporality*, NSU Press, Michigan.
- Rožman, M., Peša, A., Rajko, M. and Štrukelj, T. (2021) 'Building organisational sustainability during the COVID-19 pandemic with an inspiring work environment', *Sustainability*, Vol. 13, No. 21, p.e111747, <https://doi.org/10.3390/su132111747>.
- Sapta, I.K.S., Muafi, M. and Setini, N.M. (2021) 'The role of technology, organizational culture, and job satisfaction in improving employee performance during the COVID-19 pandemic', *The Journal of Asian Finance, Economics and Business*, Vol. 8, No. 1, pp.495–505, <https://doi.org/10.13106/JAFEB.2021.VOL8.NO1.495>.
- Schmidtke, J., Hetschko, C., Schöb, R., Stephan, G., Eid, M. and Lawes, M. (2021) *The Effects of the COVID-19 Pandemic on the Mental Health and Subjective Well-Being of Workers: An Event Study Based on High-Frequency Panel Data*, IZA Discussion Paper No. 14638, <http://dx.doi.org/10.2139/ssrn.3905073>.
- Seeman, M. (1959) 'On the meaning of alienation', *American Sociological Review*, Vol. 24, No. 6, pp.783–791, <https://doi.org/10.2307/2088565>.
- Statistisches Bundesamt (2021a) *Anzahl der Unternehmen im Einzelhandel mit Blumen, Pflanzen, Saatgut und Düngemitteln in Deutschland in den Jahren 2002 bis 2020* [online] <https://de.statista.com/statistik/daten/studie/284211/umfrage/unternehmen-im-blumenfachhandel-in-deutschland/> (accessed 26 January 2022).
- Statistisches Bundesamt (2021b) *Anzahl der sozialversicherungspflichtig beschäftigten Floristen in Deutschland von 2012 bis 2020* [online] <https://de.statista.com/statistik/daten/studie/242886/umfrage/anzahl-der-beschaeftigten-floristen-in-deutschland> (accessed 26 January 2022).
- Statistisches Bundesamt (2023) *Small and Medium-Sized Enterprises (SME)* [online] <https://www.destatis.de/EN/Themes/Economic-Sectors-Enterprises/Enterprises/Small-Sized-Enterprises-Medium-Sized-Enterprises/ExplanatorySME.html> (accessed 23 April 2023).
- Stewart, M., Reid, G.J. and Mangham, C. (1997) 'Fostering children's resilience', *Journal of Pediatric Nursing*, Vol. 12, No. 1, pp.21–31, [https://doi.org/10.1016/S0882-5963\(97\)80018-8](https://doi.org/10.1016/S0882-5963(97)80018-8).

- Swaney, E., Murnane, B., Heard, L., Friedman, N.D. and O'Brien, D.P. (2021) 'Absence of COVID-19 workplace transmission from hairdressers in Victoria, Australia', *Public Health Research & Practice*, Vol. 32, No. 2, p.e31232110 <https://doi.org/10.17061/phrp31232110>.
- Tarafdar, M., Tu, Q., Ragu-Nathan, T.S. and Ragu-Nathan, B.S. (2011) 'Crossing to the dark side: examining creators, outcomes, and inhibitors of technostress', *Communications of the ACM*, Vol. 54, No. 9, pp.113–120, <https://doi.org/10.1145/1995376.1995403>.
- The Commission of the European Communities (2003) 'Commission recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (2003/361/EC)', *Official Journal of the European Union*, L 124/36, Brussels.
- Tom, V.R. (1971) 'The role of personality and organizational images in the recruiting process', *Organizational Behavior and Human Performance*, Vol. 6, No. 5, pp.573–592, [https://doi.org/10.1016/S0030-5073\(71\)80008-9](https://doi.org/10.1016/S0030-5073(71)80008-9).
- Tyagi, A., Mishra, G. and Ansari, A.H. (2023) 'The mediating role of organisation engagement and job engagement in the relationship between job satisfaction and turnover intention: a study in service organisations', *International Journal of Economics and Business Research*, Vol. 25, No. 2, pp.229–248, <https://doi.org/10.1504/IJEER.2023.127944>.
- Uhl-Bien, M. (2021) 'Complexity leadership and followership: changed leadership in a changed world', *Journal of Change Management*, Vol. 21, No. 2, pp.144–162, <https://doi.org/10.1080/14697017.2021.1917490>.
- Uhl-Bien, M. and Arena, M. (2018) 'Leadership for organizational adaptability: a theoretical synthesis and integrative framework', *The Leadership Quarterly*, Vol. 29, No. 1, pp.89–104, <https://doi.org/10.1016/j.leaqua.2017.12.009>.
- Wulff, J.N. (2014) 'Interpreting results from the multinomial logit model', *Organizational Research Methods*, Vol. 18, No. 2, pp.300–325, <https://doi.org/10.1177/1094428114560024>.
- Xiang, S., Rasool, S., Hang, Y., Javid, K., Javed, T. and Artene, A.E. (2021) 'The effect of COVID-19 pandemic on service sector sustainability and growth', *Frontiers in Psychology*, Vol. 12, p.e633597, <https://doi.org/10.3389/fpsyg.2021.633597>.
- Zentralverband des deutschen Handwerks (ZdH) (2021) *Statistikdatenbank* [online] <https://www.zdh.de/daten-fakten/statistikdatenbank> (accessed 24 January 2021).

## Notes

- 1 The question of online formats included Face Time, WhatsApp, Snapchat, Houseparty, Discord, Skype, Zoom, Microsoft Teams, Webex, Jitsi and others.
- 2 In addition, a model was calculated without the characteristic of a changed company organization or structure. The results hardly change in this model. Only the AME, according to which the dismissal of permanent staff significantly reduces the probability of a corporate culture that has remained the same, is minimally weaker and just misses statistical significance ( $p > 0.05$ ). However, in this model, the dismissal of permanent staff still increases the probability of a deterioration in corporate culture (+11 percentage points).