

Communication and Crisis Management – A Qualitative Comparison of Swedish and German Universities

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Abstract

The pandemic confronted universities with the need to pursue their crisis management. Agility and ephemerality of information flow became essential in terms of flexibility and information distribution. Facing different national pandemic situations as well as different assets, universities had to take different suiting approaches of crisis management and communication strategies. Viewing these approaches from a more holistic perspective with similar situations of facility closure and online-communication, we identify four different strategy approaches of communication and crisis management performed by universities in Sweden and Germany, based on Mintzberg & Lampel's strategy types. This paper aims to provide deeper insight about strategical approaches towards information distribution and management in times of crisis to offer good practice examples for future crises.

Keywords: Crisis management, higher education, strategy types, pandemic

1. Introduction

The pandemic situation increased the need of structured information – especially online. However, universities' information quantity and quality seemed to be limited. As universities tried to react fast in distributing information via various online channels, unorganised information flow resulted in a lack of help for students [1]. Not only has the crisis demanded a suitable strategy for the distribution of information. Students increasingly demanded a better structure of both communication networks and availability of information provided online. This leads to a multidimensional meaning of universities online presence [11] and their digital learning concept. Transparency, flexibility and modular opportunities are key aspects of supporting students in gathering information [10] as well as improving their mobility [11]. As students' life overall changes due to digitalisation and the availability of information, universities have to adapt to this fast changing world and approach students strategically whilst offering information [13]. Regarding that, some universities performed better than others. Identifying similar obstacles of digital communication during the crisis, students' flexibility and demands on digital

communication, such as accessibility, updativeness and availability [1], we see some strategic patterns of universities' way of communication. This leads to the question what types of strategies universities used to communicate during the crisis. To answer this question the homepages of twenty selected universities in Germany and Sweden were analysed with the goal to identify good practice examples.

Within the following chapter, general as well as pandemic-specific communication challenges for universities are briefly outlined. Afterwards the theoretical framework referring to the strategy types differentiated by Mintzberg & Lampel [8] is adapted towards higher education, being followed by an explanation of the methodological concept of the study. Finally, the results are presented and discussed in a systematic aggregation of the typical strategic approaches used during the pandemic.

2. Megatrends and crisis management

Megatrends such as digitalisation, remote learning due to the pandemic and the establishment of an information-centred community demands a better communication strategy from universities.

Within prior research [1], we identified the following core dimensions of communication and content.

The *Dimension of Communication* includes availability, transparency, accessibility, findability, flexibility and up-to-dateness. Information distribution and communication needs to be orientated towards this guideline for students to improve their way of studying. Information needs to be easily and permanently available. Furthermore, universities must be transparent with their communication to avoid misunderstanding. Accessibility means for students to be able to achieve the information in an easy way from a technical perspective, whilst findability describes the content related availability (e.g. via searching tools). Flexibility is targeted towards the content creation and meeting the demands of students as well as their environmental requests. The dimension *Updativeness* describes a steady actualisation of information to keep information up-to-date. All these dimensions are linked by the need for continuous maintenance and the individual impact of communication platforms. Not information channels, but rather the strategy and the fulfilment of the criteria

of good communication are factors of good communication management. This type of communication management has become an essential determinant for the flow of information between universities and students, especially in times of crisis such as the recent COVID-19 pandemic.

Considering the pandemic as a crisis provides the opportunity to analyse crisis management in general. According to Coombs, a crisis can be defined as “a sudden and unexpected event that threatens to disrupt an organisation’s operations and poses both a financial and reputational threat”. Hence, a crisis affects both the structure of an organisation, its workflow and its reputation. In connection with the trend of demographic change and the resulting decline in student numbers, public perception and social reputation is a particularly important component in promoting universities to potential students. Furthermore, a crisis creates a demand of informational flow to reduce uncertainty and stress [3].

Coombs offers the attributional theory of situational crisis communication theory (SCCT) for linking communication (crisis responsibility) and organisational reputation to gain an understanding of the systematic relation:

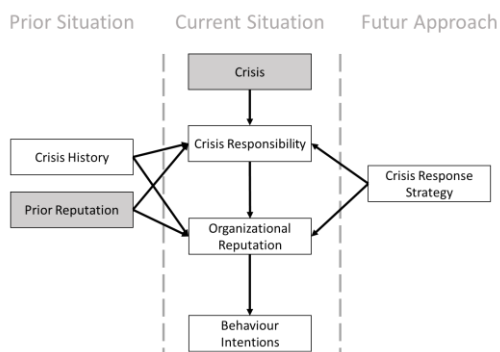


Figure 1. Modified crisis situation model of SCCT by Coombs [3]

According to this model, crisis management is a crucial factor to maximise reputation protection and to minimise organisational damage. Therefore, the threat can be differentiated into initial crisis responsibility, crisis history and prior relational reputation [3]. However, these factors can only be influenced to a limited extent. In an existing crisis, the crisis history, i.e. existing and overcome crises from the past, and the crisis reputation in the sense of the reputation of (successful) handling of crises, are two factors that have legitimised themselves through past situations. Nevertheless, their influence on current crisis management should not be neglected as previous experiences often shape crisis management. Coombs divides crisis responsibility into three types: the victim cluster, in which the organisation appears primarily as a victim (natural disasters, workplace accidents, etc.), the accidental cluster, in which the

organisation has unconsciously contributed to the crisis, or the preventable cluster, in which the organisation, aware of the danger, takes a risk or undertakes inappropriate actions (organisational misdeeds). Based on these attributes, crisis is evaluated as a bigger or smaller threat and the strategy needs to be adapted [3]. Taking this model into consideration, Moerschell and Novak [9] identify crisis as a frequent happening with different origins such as natural disasters (floodings, fires, earthquakes, tornadoes, snow events) or even acts of violence (shootings in educational facilities) leading to a rising demand of universities to present both guidelines, specific personnel and locations including risk management. Especially in a fast arriving crisis, speed and content of information distribution is a necessity to inform students, faculty, staff and other affected parties [9].

At the same time, universities have to deal with restrictions such as legal issues and need to communicate a controversial problem [2]. Due to their status as state institutions, universities are subject to the challenge of maintaining legal boundaries. These legal boundaries comprise the following aspects:(a) As state institutions, universities' actions must be legally legitimised and remain within their competences or tasks. (b) Communication and actions are bound by standards and the university must act as an authority in this respect. (c) The university's reputation not only serves the state's order of competences but also carries a binding obligation and responsibility for the university members [14]. Therefore, external communication must adhere to the duty of neutrality, exhibit objectivity, maintain accuracy and relevance, eschew bias and consider the safeguarding of university members. It is important to act consistent as an institution, not as individuals. In this context, the legal regulations of university communication are a particular challenge for transparent discussions between universities, university members and third parties [14].

Especially in dynamic times, the disruption of structures whilst dealing with retaining rigid modular curricula can be challenging. Many universities already realised the above aspects and the importance of communication channels before the pandemic. However, the pandemic situation affecting universities globally, and causing the closure of universities as well as a switch towards digital learning increased the demand of a steady digital informational flow. In particular, online channels such as websites, social media channels and digital news platforms are in general a popular tool used by universities to reach as many students as possible. The appropriate use of these tools contains challenges. As universities still face obstacles regarding the technical implementation and the quality of information distribution, we see tendencies of strategical approaches via communication channels. This leads

to the central question of this research, what kind of strategical approaches can be outlined and which organisations can be deemed successful as an example of good practice for further communication strategies in times of crisis.

In order to answer this question, first the various strategy types used by the universities were identified and then compared over time to discover typical strategic approaches. Therefore, the theoretical model of Mintzberg & Lampel [8] was adapted to the university context. The results of the analyses of the twenty selected university homepages refer to this theoretical framework.

3. Crisis information management - strategy types in higher education

To analyse the organisational-strategic approaches of universities during the pandemic, we adapted the model of Mintzberg & Lampel [8]. This model was chosen because it represents the typical patterns of teaching institutions and thus enables a respective transfer. Furthermore, the different typical characteristics can be applied very specifically to the representation of the output. Mintzberg & Lampel [8] differentiate the following ten types: design, planning, positioning, entrepreneurial, cognitive, learning, power, cultural, environmental and configurational. The authors describe these strategy types as different phases within a strategy formation process. Within this process, the respective teaching institutions undertake a positioning, and then enter the cognitive phase, in order to strive for autonomous, creative shaping through the planning, design and finally entrepreneurial phases. In this regard, a slight adaptation is made for the higher education context. This subsumes the assumption that higher education institutions position themselves differently depending on their strategic orientation and objectives.

The *planning type* decomposes formal processes into distinct steps, delineated by checklists and supported by techniques (especially with regard to objectives, budgets, programs and operating plans) [8]. Universities belonging to this strategic type focus on a (long viewed) strategic approach by using the typical techniques of this approach.

Strategy is regarded as an analytical process within the *positioning type*. From this perspective, strategy is reduced to generic positions, which are selected through a formalised analytical process of industry situations. The decision makers depend on the recommendation of the analysts who plan their strategic positioning based on data [8]. The universities using this approach mainly rely on (scientific) data and they can be characterised by a strong analytical focus. Furthermore, a data oriented scientific view, i.e. regarding safety measures, as well as statements to deal with health problems, would be characteristic.

The *entrepreneurial type* centres on the chief executive and roots the strategic process in the mysteries of institution. This type shifted strategies away from precise design and rather focuses on visions and broad perspectives, often seen through metaphors. This leads to a focus on particular contexts like e.g. start-ups [8]. Universities of this type emphasise a processual approach possibly using metaphors to encourage the collective – not in an empathic way, but in a collective contextual way.

Constructing creative interpretation of strategies instead of mapping reality in an objective way is characteristic for the *cognitive type*. The respective research focuses on cognitive biases in strategy making as well as cognition as information processing, knowledge structure mapping and concept attainment. The latter is perceived as especially important for strategy formation [8]. Universities of this type do not consider reality very extensively, but rather choose ways to solve the problems of the actual situation and to develop their own solutions to deal with it.

The *learning type* combines different theoretical components and connects them in a new strategy type. This approach differs from the earlier schools and creates a new wave, which challenged the up to then dominant prescriptive types (design, planning, positioning). The learning type views strategies as emergent, which exist throughout the whole organisation. So-called formulation and implementation intertwine with each other [8]. Universities using this type adapt while implementing certain measures in a fast changing process. The idea of “learning by doing” is very characteristic for this type.

The *power type* is rooted in the concept of power and can be differentiated into two orientations: First, micro power sees development of strategies within organisations as essentially political (bargaining, persuasion, confrontation of divided power) and second, macro power views organisations as entities with power over others in the sense of negotiating with others [8]. The universities of this type divide responsibility within their organisation among all groups. Furthermore, they tend to learn from trial and error, which is notable by recollecting mistakes or correcting statements, without admitting mistakes.

The *culture type* focuses on common interest and integration. This type sees strategy formation as a social process rooted in culture, characterised by a high collectivism in which culture is central [8]. Hence, universities of this type perceive high collectivism as a central aspect, which tends to result in students being in their focus. The setup of an information centre about integration and cultural enablement matches this type as well.

The *environmental type* is not strictly in the core of strategic management but focuses on the demands of environment in an organisational context. It is

associated with contingency theory and stresses the expected responses of organisations facing particular environmental conditions [8]. Universities of this type consider environmental aspects strongly and provide actual and accurate news about environmental changes. Furthermore, they take responsibility (e.g. clear statements) to support measures protecting the environment.

The *configurational type* sees organisations as coherent clusters of characteristics and behaviours. This type integrates claims of selected other types and contains the leap from one state to another and the transformation between these steps [8]. Universities of this type provide very adaptable and broad information. They collect data and compress them for their target groups. Universities pursuing this type are quite dynamic.

Consequently, for the research on which this paper is based, the ten original types were merged into four approaches, which are characterised by different levels of abstraction. The approaches align to Jarren's influence factors on higher education communication: economisation, medialisation and politisation [6]. Economisation describes the need to be more structured and organized in terms of governmental structures. Therefore, the approach influenced by this trait is labelled as systematic approach. The impact of medialisation describes the need to communicate and act both as an organisation and as an individual with responsibility towards both stakeholders, especially regarding social communication. Therefore, the deriving approach is named socially sensitive approach. Lastly, the politization describes the need to interact with other universities with both responsibility and connections to a variety of governmental facilities and stakeholders. The approach aligning with these interests identified is named political approach. Rearranging these types and aligning them to the different influences, we additionally identified a new approach of creativity and collectivism: the future driven approach. In accordance to the strategy types, we offer the following systematisation of the organisational types:

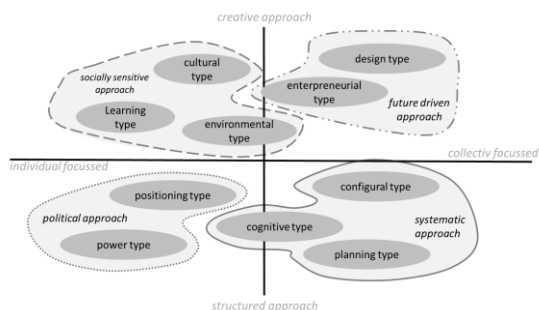


Figure 2. Systematisation of crisis approaches in higher education

The **systematic approach** comprises the planning, cognitive and configurational types. Deriving from

the strong formal orientation on structured approaches aligning with the planning type, this type is identified on the lower right within the systematic group. This type symbolises the systematic approach most strongly. Constructing creative interpretation of strategies instead of mapping reality in an objective way is characteristic for the cognitive type, matching this type as well with the structured approach and the focus on a collective wellbeing. The configurational type also sees organisations as coherent clusters of characteristics and behaviours, matching the need for organisation as well as collectivism and therefore being sorted towards the systematic approach. Furthermore, this strategic type contains the leap from one state to another and the transformation between these steps [8]. Therefore, types of this approach tend to be very structured and well-organised regarding both their informational flow and their organisation. They are able to deal in a decent manner with already experienced problems, hinting towards a broad range of previous experience in how to deal with a crisis. However, this type also offers the disadvantage of formalised bureaucracy and inflexibility regarding unknown changes and situations which might not have been faced before.

The **socially sensitive approach** includes the learning type, the cultural type and the environmental type. With the cultural type focusing on community integration and emphasising culture, there is a tendency towards collectivism. As the interests of the individual students are more important than organisational interests, the cultural type is influenced by an individual focus to a certain degree. The flexibility implies to adapt to different cultures and the openness leads to a more creative approach of this type. The environmental type on the other hand focusses more on the collective wellbeing with the individuals having an impact on the overall goals and responsibility. The strategic orientation is strongly influenced by the enablement of the assumption of social responsibility. This is also realised within the learning type. This cluster is particularly suitable for universities that are located in the community and have a high level of integration into this community, or also strive for a high level of identification with their environment. The social responsibility and sensibility about community goals offers a broad range to react sustainable. Vice versa, a collective can be created within the university community by striving for clear goals (sustainability, taking responsibility, social commitment). This approach is especially sensitive regarding current factors leading to a crisis and taking responsibility. Weaknesses of this approach can be outlined in the missing strategic attitude or missing overall goal (to overcome a crisis) by focusing on a certain aspect (e.g. approaching everyone individually, working as a sustainable facility in contrast to certain regulations and rules by the government).

The **political approach** tends to be power driven, therefore uniting the traits of the positioning type and the power type. Strategy is regarded as an analytical process within the positioning type. From this perspective, strategy is reduced to generic positions, which are selected through a formalised analytical process of industry situations. As the positioning type needs some degree of flexibility this type is located on the upper level of the political approach. The type combines both collective information of research and data with individual interests, and is therefore placed in the middle of the systematic map. The power type on the other hand is based on the concept of power and domination by individuals. This type centres about the interest of the university as an individual – not the individual needs of students or collective goals. Both types can be combined regarding their mindset of internal hierarchies and independent management from a structured perspective with decision-making processes taking future risks into consideration. This approach is bound to weaknesses such as being biased towards organisations' own decisions and missing a collective solution. Therefore, universities using this approach need to be sensitive about a collective and creative way to deal with crisis. However, the strong independency of this approach regarding other organisations offers more flexibility within changes and improves fast-paced decision-making processes to react towards crisis in a short amount of time.

The **future driven approach** aims to address the trends of tomorrow, uniting the entrepreneurial type and the design type. The design type can be seen as strategy formation of achieving the essential fit between internal strengths and weaknesses as well as external threats and opportunities. This type can be outlined as both creative and structured at the same time, whilst focusing on a collective approach to deal with the demands of all groups involved by setting and managing structured guidelines. This type can also be characterised by its futuristic and unique ideas. The entrepreneurial type shows similar traits by also exercising unique and flexible activities but with a more structured system needed by the organisation. These two types can be summarised in a future driven approach by their creativity and collectivism. This approach is especially suitable for younger or smaller universities with a less complex structure, innovative young ideas and low barriers of both bureaucracy and hierarchies. They tend to focus on a processual approach to increase the current state of the collective. This approach bears the risks of supporting tasks that might not be suitable for a growing facility as well as missing structure to deal with a crisis according to the regulations.

Mintzberg & Lampel [8] state that some strategic approaches cut across the above types in eclectic ways. Furthermore, they discuss the question whether these ten types represent different processes, whether

they are different approaches to strategic formation or different parts of the same process. The authors give some examples of strategy types that clearly are stages or aspects of the strategy formation process. For example, the positioning type looks at available data analysing it and using it for developing a strategy. In contrast, the design type looks ahead for a strategic perspective or the entrepreneurial type looks beyond for a unique vision of the future. In this paper, the presented strategy types are understood as different processes rather than as stages of one process.

4. Research design and sampling

The main reasons for the selection of Germany and Sweden were the two countries different political strategies towards the pandemic in general as well as the DESI, the Digital Economy and Society Index [4], where Sweden holds the second place and Germany the 12th place. The university sample analysed consists of the top ten universities in the international ranking from the two selected countries within the ranking of Times Higher Education [12].

Within this study the university homepages were recorded via screenshots and analysed using qualitative type-forming content analysis [7]. To standardise the process, the information on the homepages was selected based on the first result displayed in a google search to meet the criterion of high accessibility. The first result displayed by the university, which contained either information and/or material for students, was saved and transferred to a data analysing software.

To trace the changes in universities' strategic approaches coping with the pandemic situation over time four observation points were chosen. The observation points were randomised during July 2020 and May 2021.

5. Results

The results show that universities do not follow one specific strategy type, but rather different strategies tend to be combined with each other, which supports the approach of combining the ten types into general strategy approaches. Hence, two phenomena were observed regarding the strategy types: First, often several characteristics of different strategy types were observed at one university and second, the strategy types of some universities changed during the pandemic. These observations will be concretised in the following by using the strategy approaches to structure the results.

5.1. Systematic approach

The planning type evolved by acquiring further visible characteristics. Overall, the planning type

seems to focus on both content and appearance. This means that universities belonging to this type visibly prefer long-term approaches and outlining respective plans on how to deal with the pandemic situation. The homepage content was rather compressed. Only information regarding further studies was integrated. This type seemed to gain popularity over time: While in the first wave no characteristic traits could be identified at any university, at the end of the fourth wave, six universities showed clear traits of the planning type. Even though the characteristics of this strategy type appeared more pronounced at German universities, roughly the same number of universities in both countries used the planning type.

The cognitive type seems rather similar to the planning type, because both are characterised by a strong rational focus on strategy. However, the cognitive type considers the actual situation to a lesser extent than the planning type does. Furthermore, the respective strategies are not planned long-term. The cognitive type rather tries to outline immediate solutions for the situational challenges and neglects the specific circumstances. Therefore, this strategy type appears as a bundle of information and fast changing reactions as well as an organised provision of links to further information. While characteristics of the cognitive type could only be identified at one point in time at two universities in Germany, this type seems to be used as a prominent strategy type in Sweden. The typical characteristics were identified at eight Swedish universities. Four of them used this type especially at the beginning of the pandemic, while three universities showed the respective characteristics during the completely analysed period. This strategy type was clearly used more often at the beginning than at the end of the observation phase. Furthermore, it is striking that the universities using the cognitive type over time also exhibited characteristics of the entrepreneurial type.

The configurational type especially considers changes of the environment. Information gets adapted very quickly and collected information is compressed to provide an overview. Hence, dynamic combined with the sharing of well-structured information characterises universities using this type. However, this type is overall the least relevant strategy type (used by only three German and one Swedish university) and was only used sporadically in the course of time. Thus, at observation point four, no university exhibiting characteristics of this strategy type could be identified.

5.2. Socially sensitive approach

Universities representing the cultural type initially stress collegial measures, which then level off again over time. While universities in Sweden used this strategy type only sporadically, German universities in particular used this type more continuously. The

cultural type emphasises collectivism in a more positive manner than the entrepreneurial type. Students are the primary target audience and therefore information is provided mainly to them. Furthermore, the idea of collectivism is also related to emotional and informational support as well as cultural enablement. This especially involves “invites to join” (fighting the spread of the virus via e.g. health measurements) or student life centred information (e.g. library, travel, courses) and points out concrete contact data and addresses. However, specific plans or updates are often absent in this type as well.

The environmental type accentuates the environmental changes and adapts to them rather quickly. This type is characterised by frequent updates and immediate support. This leads to an information flood with many frequent updates. Information is also not structured but chronological. This type could only be identified at one German university at one observation point, while at Swedish universities comparatively a lot more characteristics were recognisable at seven out of ten universities. Furthermore, the Swedish universities used aspects of this strategy type also over time (five universities more than once). Overall, the use of this type was relatively even distributed over the analysed period. Furthermore, universities using this type often shifted their strategy towards the entrepreneurial type.

The learning type quickly adapts to the fast changing environment, as the information sharing process can be seen as a “learning by doing”. Hence, updates occur frequently and corrections are made often. A very typical example for this type are FAQs (Frequently Asked Questions). These websites automatically get longer over time, as more questions are asked and answered. Another example is the category “Information for Students”, where the content is also updated frequently in terms of governmental regulations, restrictions and further plans of the university. This type appears to be used more often in German than in Swedish universities. Furthermore, this type was used over a long period. The closeness to the cultural type is particularly noticeable at Swedish universities. In contrast, in German universities the type often went hand in hand with the design type, even though the characteristics of the learning type partly contradict the design type. There is a tendency for the learning type to decrease over time.

5.3. Future driven approach

Universities using the design type tend to provide information visually and superficially with links to other, more detailed pages. Information has been summarised as briefly and concisely as possible to ensure both clarity and topicality. The structure is very intuitive. The visitor is forwarded to the respective topic with links according to their interests. The

information design and the references to the redirection ranges from a few sentences to just keywords. The comparison of various strategy types shows that the design type is relevant in particular as initial strategy. A large number of characteristics could be assigned to this type. The use of the design type remained relatively constant over the observation periods, so that a strategic continuity could be identified for all universities (n=10) using it over time, which is very typical for the design type. The layout, the presentation of information and the content remained relatively stable over time. Universities of this type could be identified in both countries with six universities showing these traits in Germany and four universities in Sweden.

Moving away from a rigid informational focus, the entrepreneurial type shifts the focus towards a collectivism of the university community. Students, employees and interested readers were addressed directly, e.g. within a letter or a video. The content especially addressed the roles and responsibilities of each stakeholder group. Furthermore, statements of gratitude and concrete advice could be observed frequently. However, only five universities exhibited the identified entrepreneurial strategy traits. The respective content often accentuated a collective „we“. Therefore, the information provided do not necessarily contain health advice or further plans and structures but aims to spread the message “we will do this together”. The entrepreneurial type can be identified within both countries, but only at five universities in total. It must be mentioned that universities that use this type comparatively often also show characteristics of the cultural type. Furthermore, they use the collective type over time, especially at the beginning, decreasing strongly over the analysed period.

5.4. Political approach

Regarding the content and timely structure, the positioning type is the exact opposite of the cognitive type. Especially the clinical universities included in the sample outlined the current situation at the university hospital – tending to focus on current solutions from a medical point of view. These universities often shared scientific information and health advice. As the focus shifted towards describing the situation at the hospital over time, especially information for students were mainly provided through links to external sources or they were omitted entirely. Another common manifestation of the positioning type was a sole focus on health advice. The use of this type is identical in both countries. However, at Swedish universities, the typical characteristics were identified much more frequently. This type became increasingly popular over time, in particular between observation point one and two.

In contrast to all other outlined types, the power type was not identified within this sample.

As already mentioned certain types occur partly in combination with each other. Here, the frequent overlapping of the design type and the environmental type was particularly outstanding. While the design type concentrates primarily on the structured presentation of information, the homepages were enriched with current information and updates, which are typical characteristics of the environmental type.

In addition, university websites with characteristics of the design type also showed evidence of either the entrepreneurial type, the learning type or rarely the planning type/cultural type. In addition, common characteristics of the entrepreneurial and environmental types could be identified within one university. Another connection could be identified within a mix of the learning and cultural type as well as the configurational and cultural type.

6. Discussion

The central aim of this study was to identify the different strategical approaches of information dissemination during the pandemic. Overall, the results suggest that certain strategy types either complement or cannibalise each other. Furthermore, adapting towards both previous experiences as well as current factors, universities may change their strategic approach according to their own structure.

The high structure of the *systematic approach* offers the advantage to deal with crisis accordingly. The detailed structure of homepages and content presented in a certain way reduces misunderstandings and supports safety. Especially in fast-paced crisis times, this kind of stability can give various stakeholders peace of mind. Summarizing the planning, cognitive and the configurational type, this approach highlights informational distribution with a long-term approach. Depending on the situations, universities pursuing this approach tend to focus on the configurational type to increase flexibility and updativeness in terms of structural information flow and plans how to deal with the crisis. Linking these findings to Coombs attributional theory [3], especially veteran universities, which have faced crisis before (crisis history), use these experience to act accordingly in the current crisis.

Within the *socially sensitive approach* the need for initial adaption of information due to the uncertain pandemic situation is also reflected in the learning type, which explains the high usage of this strategic approach at the beginning of the pandemic and its flattening over time. After adaptation, other types replaced the learning type (for example the cultural type). During as well as after the situational adaption, especially the support of collectivism was relevant. The cultural type's popularity at the beginning of the

pandemic can be explained by universities' intention to address students' uncertainty. Besides, they aimed to propagate a collective message emphasising the sense of "we can do it together". However, this signal remained limited over time and then rather shifted more towards the entrepreneurial type, which focuses less on emotional collective aspects but more on social belonging and holistic, as well as collaborative aims to solve problems. Furthermore, the proximity of the entrepreneurial and the environmental type is notable. Universities using the entrepreneurial type selectively promoted the collective and strengthened process-orientation. It is surprising that Swedish universities more strongly oriented towards the environmental type than German universities did. This can be explained by the rather rigid, nationwide regulations in Germany, which were enforced relatively early (already before observation point one). While Germany was already in lockdown and universities were closed, Swedish universities were still free to hold face-to-face classes. The socially sensitive approach therefore hints towards a strong influence of both prior and current reputation of the organisation in leading to behaviour to both deal with and prevent future crisis. This approach is especially suitable for universities within communities and the need to bear social responsibility.

Regarding *future driven approach*, the design type and the information density of the environmental type result in synergies: Within highly structured homepages, content can be presented in a very simple and reduced way in order to address and inform all stakeholders individually. In particular, the rapid changes in regulations during the pandemic made it necessary to react quickly to legal directives and to communicate them. This fast pace was addressed by using the learning type – all universities were confronted with the new situation and therefore a certain amount of "learning by doing" was necessary. This approach outlines the need to act by viewing the crisis as a current threat and reacting in a fast and creative way to deal with it.

The *political approach* is especially centred on universities influenced by the surroundings. It is important to note, that this approach does not aim to take political action but rather tends to be a democratic approach to meet as many expectations as possible by searching for the smallest denominator. Including both the positioning type and the power type, this approach is heavily influenced by the surrounding, governmental regulations and low individual autonomy. This type is especially determined by the current organisational reputation, which will result in future reputation. Therefore, the crisis response strategy is outlined to meet various different interest groups by choosing the effective way to attract as much groups as possible. This may lead to a strategy to which not all involved individuals will completely agree but tolerate it. This approach is a good choice

for political engaged universities or universities facing a variety of different interest groups.

On a holistic level, the study reveals that German universities emphasised collaborative-collective approaches. The design type also had a higher priority at German than at Swedish universities. Clear, rather brief information and structured presentations of further information sources on German university websites contrast with the broad provision of information and highly elaborated websites of Swedish universities. These differences may be partially attributed to social customs and underlying bureaucratic structures.

7. Limitation

This study is bound to certain limitations, both deriving from the sample as well as the analysing process. Reducing the sample to only two countries with the information gathered during the crisis and not afterwards, this article only offers a brief overview on organisational approaches to deal with crisis. Additionally, the crisis viewed within this study was identified as a natural crisis, resulting in context bound findings [5]. However, this limitation can also be seen as a strength, as the identified strategic approaches can be perceived as "good practice" examples. The identified approaches with different foci offer a broad variety for universities to shape their crisis management and to identify their own organisational strengths and weaknesses. We advise a reliable identification of well-functioning strategic models within further qualitative research investigating the experience and perception of strategic decision makers in universities.

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