

***The Only Constant is Change: Determinants of Change-Supportive Employee Behavior in the Context of a Higher Education Institution***

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Word count:	16.530
Date:	25-08-2021

### Abstract

**Purpose:** Organizational change has become a fundamental factor in ensuring the long-term success of higher education institutions (HEIs). However, particularly the role of employees in the change processes remains under-researched. While certain factors are known to affect the degree to which employees actively engage in change implementation rather than resist it, in-depth information about these factors is lacking. This study aims at using the exploratory nature of qualitative research to gather in-depth knowledge about determinants of change-supportive employee behavior (CSB) in the context of HEIs. **Method:** A combination of an inductive and deductive approach was used. Semi-structured interviews with 30 full-time employees from a university were conducted, which recently implemented a new mission, vision, and strategy. The sample consisted of academic personnel who were employed at the university for at least five years. **Results:** The interviews confirmed the importance of content factors, process factors, context factors, and individual factors for the creation of CSB. Additionally, new determinants were derived from the inductive analysis, such as the perceived necessity of the change or the degree to which the change aligns with employees' work. **Conclusion:** Content factors, process factors, context factors, and individual factors play a crucial role in the creation of CSB in the context of HEIs. Especially the determinants derived from the inductive analysis provide new rich insights that can help HEIs successfully manage change processes.

*Keywords:* change-supportive behavior, organizational change, strategic change

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### **Introduction**

Today's organizations are faced with fast-changing environments due to technological developments, societal challenges, and globalized markets (Stouten et al., 2018). Successfully adapting to these changes has become a crucial ability of organizations to remain competitive (Riyanto et al., 2018). However, research indicates that the estimated failure rate of change initiatives lies between 30 and 70 percent (Cândido & Santos, 2015), which causes severe problems for organizations (Neves, 2011). This is also the case for public organizations such as higher education institutions which moreover are challenged by changing governmental decisions and tighter budgets (Ahmad & Cheng, 2018; Van der Voet & Van de Walle, 2018). To remain competitive, successful management of change has therefore become a crucial demand for HEIs (Neves, 2011; Stage & Aagaard, 2019).

Scholars suggest that few factors are as critical when it comes to organizational change as human characteristics (Rogiest et al., 2015). They agree that a primary reason for high failure rates of change initiatives is that human aspects are not considered adequately (Choi, 2011; Kotter et al., 2004). Especially the influential role of employees in determining the change outcomes is often underestimated (Choi, 2011; Meyer et al., 2007; Van der Voet et al., 2016; Van der Voet et al., 2017). A construct that has emerged from this employee-oriented perspective is change-supportive behavior (CSB). This refers to active behaviors employees engage in to facilitate the implementation of a planned change (Kim et al., 2011). Particularly, the active support of employees when it comes to change initiatives was found to be crucial for successful implementation (Armenakis et al., 2007; Ford et al., 2003). Even though there are frameworks in which different determinants of CSB can be incorporated, agreeing on which determinants should be incorporated for a complete framework is still a challenge (Straatmann et al., 2016).

Another problem is that studies investigating change in the specific context of HEIs are lacking (Van der Voet et al., 2016). This is especially problematic because HEIs have unique characteristics when it comes to organizational structure, management, and leadership. HEIs are described by research as organized anarchies and loosely coupled organizations, which distinguishes them from other types of organizations (Patria, 2012). Therefore, HEIs cannot be treated the same way as other organizations when it comes to the management and implementation of change (Patria, 2012). This was also highlighted by Hassan et al. (2020), who point out the need for more research specifically on CSB in HEIs contexts. The present study aims at reducing these knowledge gaps by using research from existing studies and investigating it in a HEIs context.

Lastly, most of the studies that investigated determinants of CSB so far used a quantitative approach (Ahmad & Cheng, 2018; Devos et al., 2007; Self et al., 2007). However, the present study argues that using a qualitative approach can advance the field of CSB because it allows viewing existing data from quantitative studies from new perspectives (Kelle, 2006). This reasoning is supported by Van der Voet et al. (2016), who argue that in order to advance the field of CSB, quantitative and qualitative research should complement each other. Therefore, the present study uses the exploratory nature of qualitative research to investigate determinants of CSB in the context of HEIs to increase the knowledge about already known determinants as well as to discover new ones. Hence, semi-structured interviews with employees working at an HEI were conducted to answer the following research question: *“What are determinants that affect change-supportive behavior in the context of strategic change in a higher education institution?”*

### **Theoretical Framework**

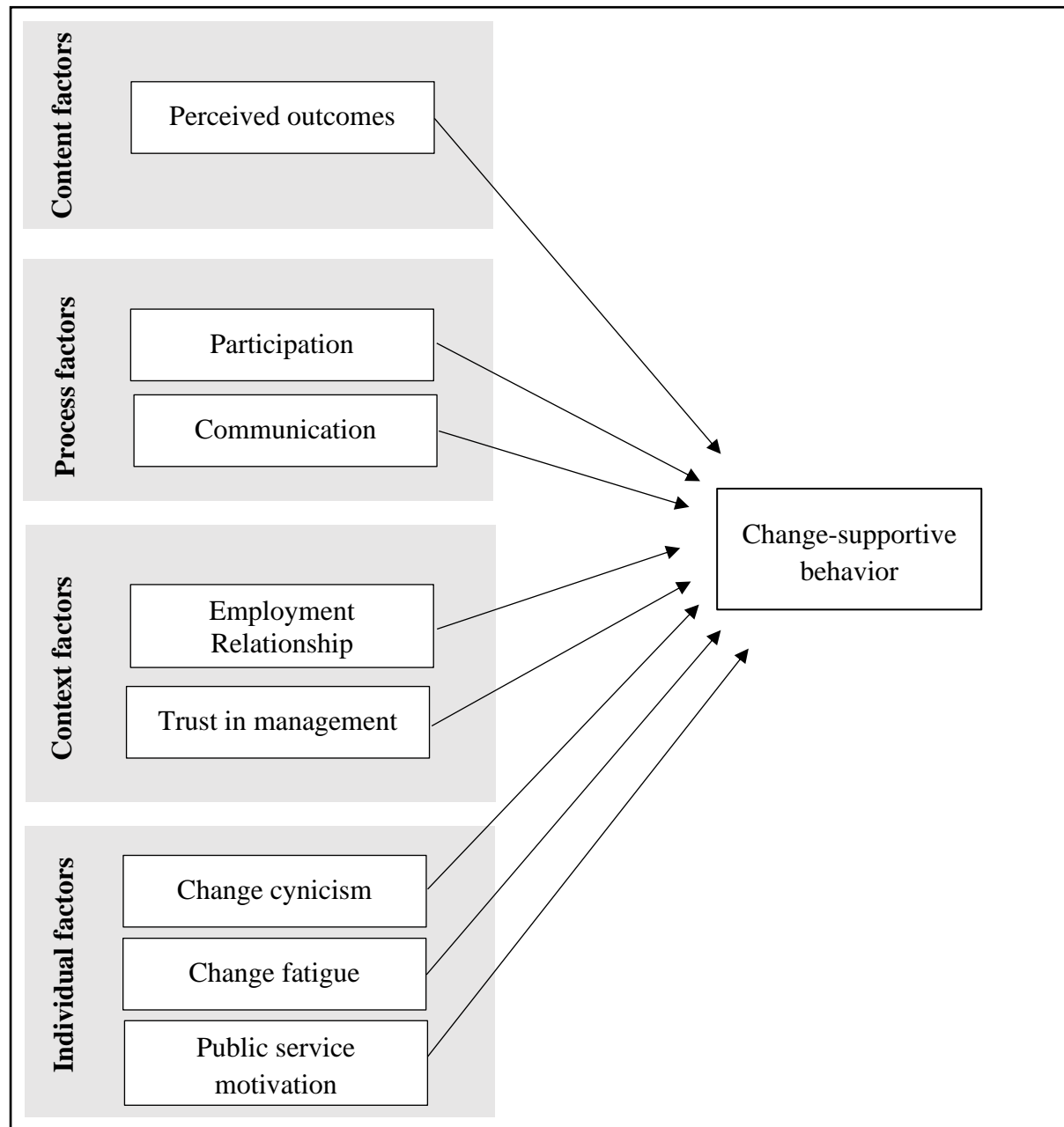
In the following, previous research on determinants of CSB will be discussed. First, the topic of CSB will be introduced. Afterward, a taxonomy for determinants will be provided, and

studies will be reviewed to come to a coherent summary of already existing relevant determinants of CSB.

### **Change-Supportive Behavior**

According to Kim et al. (2011, p. 1667-1668), change-supportive behavior can be defined as “actions employees engage in to actively participate in, facilitate, and contribute to a planned change initiated by the organization.” The present study will use this definition as a starting point, as it emphasizes the active nature of CSB that is focused on actual behavior rather than change-related attitudes of employees.

Previous research has identified several determinants of CSB, such as employee commitment (Meyer et al., 2007), information about the change, and whether the change is perceived to be favorable (Miller et al., 1994). There is also evidence that participation in the decision-making process contributes to employees' CSB (Jimmieson et al., 2008; Wanberg & Banas, 2000). Since there are numerous potential determinants, Straatmann et al. (2016) recently suggested using a taxonomy introduced by Armernakis and Bedeian (1999) to categorize and identify determinants that affect employees' CSB. Armernakis and Bedeian (1999) state that content factors, process factors, and context factors are three relevant categories that commonly affect employees' reactions to change. Walker et al. (2007) added a fourth category to the taxonomy, namely individual factors. This taxonomy provides the possibility of identifying a wide range of determinants. Therefore, it will be used as a starting point for this study. The whole framework can be found in Figure 1, including the factors that build up the four different categories. These were derived from previous research on CSB and will be discussed in the following.

**Figure 1***Overview Theoretical Framework*

**Content Factors**

Content factors refer to the “what” questions of the organizational change. It reflects what changes and how these changes are perceived by employees (Burke & Litwin, 1992). This strongly depends on the type of change that is happening (Armenakis & Bedeian, 1999).

***Perceived Outcomes***

Scholars usually distinguish between changes that severely impact the lives of employees (e.g., loss of job) and changes that have a less severe impact (Self et al., 2007). Research indicates that changes that are perceived to threaten employees' job security negatively affect employees' attitudes towards a change initiative (Paulsen et al., 2005). If a change initiative is merely focused on culture, attitudes, and behaviors, it is generally perceived as less threatening (Straatmann et al., 2016). This is supported by Beer and Nohria (2000), who distinguish between economic-driven changes and changes directed at the development of an organization. Employees feel more threatened by economic-driven changes (e.g., reducing costs) than changes related to culture, attitudes, or behaviors (Beer & Nohria, 2000).

Not only does the degree to which a change impacts employees affect their CSB, but also whether employees hold positive expectations towards the change outcome (Bartunek et al., 2006). Armenakis et al. (2007) state that these expectations can have extrinsic (e.g., monetary benefits) as well as intrinsic (e.g., more autonomy when making decisions) components. Scholars in the field of CSB generally agree that expected intrinsic benefits are more likely to lead to supportive behaviors than extrinsic benefits (Kim et al., 2011).

However, there is also evidence that next to the anticipated benefits also the general attitude towards the change initiative will affect employees CSB. If employees, for example, think that the content of a change initiative is not part of their job description, this might decrease CSB (Coyle-Shapiro, 2002). Moreover, employees do not only assess a change initiative by the threats and benefits they expect for themselves but also the whole organization (Fugate et



al., 2012). Therefore, it is likely that employees CSB is affected by the expected benefits compared to the potential threats employees see for themselves and the organization as a whole.

### **Process Factors**

Process factors relate to the way things are changed and the interventions that have been used in the implementation process (Walker et al., 2007). Researchers agree that process factors play a vital role in the organizational change process since successful change initiatives largely depend on a successful implementation (Caldwell et al., 2009).

### ***Participation***

Participation is related to offering employees opportunities to take part in the planning and implementation process of a change initiative. Research indicates that participation reduces feelings of uncertainty and anxiety about how changes will affect employees (Bordia et al., 2004). This is because participation allows employees to impact the change initiative (Devos et al., 2007). Moreover, participation was found to influence employees' change-related self-efficacy positively. Change-related self-efficacy describes employees' belief that they can meet the demands the strategic change requires (Jimmieson et al., 2008). This, in turn, creates feelings of control and psychological ownership regarding the change (Dirks et al., 1996).

Involving employees in the change process also seems essential since this increases the likelihood that employees can identify with and accept the new strategy (Msweli & Potwana, 2006). This is supported by Reichers et al. (1997), who state that employees must believe that their opinions have been heard for planned change to be successful. Furthermore, opening the process to a broader audience and allowing employees to engage in co-creation positively affected the quality of strategy-making processes (Jensen, 2017; Mack & Szulanski, 2017).

In general, it can be said that there is evidence that involving employees in the change process will increase their level of support (Rafferty & Restubog, 2010; Van der Voet et al., 2016). However, research indicates that participation is most likely to lead to successful change implementation if employees participate directly as members of the change team (Lines, 2004).

### ***Change Communication***

Adequate communicative interventions about change were found to decrease employees' resistance to change and increase their cooperation (Miller et al., 1994). According to Rafferty and Restubog (2010), it can be distinguished between formal and informal change communication efforts. Formal communication involves the top-down transmission of information that is generated to positively influence employees' attitudes towards the change (Russ, 2008). Typical formal communication activities involve, for example, presentations, videos, brochures, and information meetings. In their study Rafferty and Restubog (2010) confirm that formal change communication significantly reduces uncertainty towards change. However, there is evidence that employees do not change their general attitude towards a change initiative based on information they receive through formal change communication (Rafferty & Restubog, 2010). Moreover, it was shown that formal change communication is most effective when employees have a moderate to a high level of trust in the management (Rafferty & Restubog, 2010).

Informal communication processes are related to communication efforts that are not carefully designed or standardized by the organization (Rafferty & Restubog, 2010). For example, research suggests that employees' social environment at work (e.g., co-workers or leaders) provides them with cues that are used to interpret certain events. In other words: The way people in the employees' social environment speak about a change initiative (e.g., frequently mentioning certain issues) affects employees' attitude towards the change

(Rafferty & Restubog, 2010). This was supported by Bordia et al. (2006), who found that employees that were confronted with negative rumors reported increased change-related stress; in contrast, employees who reported positive rumors had a more positive attitude towards the change (Bordia et al., 2006). Given this effect, organizations should try to understand and manage the informal communication processes. Rafferty and Restubog (2010) suggest that especially the position of mid-level managers as a linking pin between the management and employees could be of importance here.

### **Context Factors**

Context factors reflect the environment in which the change takes place and the individual characteristics of an organization and its membership. Context-related factors can be distinguished into external contextual factors and internal contextual factors. External contextual factors are usually not under the control of the organization, such as technological changes, changes in legislation, or competitive pressure. Internal contextual factors refer, for example, to management attitudes toward change (Damanpour, 1991), the quality of employment relationship (Kim et al., 2011), and the degree to which employees perceive the management as trustworthy (Ertürk, 2008).

### ***Quality of Employment Relationship***

Research indicates that the quality of the relationship between an individual and an organization affects employees' CSB (Kim et al., 2011). In high-quality employment relationships, employees feel gratitude, personal obligation, and trust regarding their employer (Blau, 1964). This is also related to the concept of affective commitment, which describes employees who feel emotionally attached to their organization, identify with it and enjoy membership in that organization (Straatmann et al., 2018). In such relationships, employees are motivated by a social norm of reciprocity rather than by personal benefits, which was found to increase CSB (Gouldner, 1960; Kim et al., 2011). This refers to the

concept of psychological contract, which according to Weber and Weber (2001), affects that the quality of employment relationships. A psychological contract is a set of unwritten expectations, mutual beliefs, and perceptions in an employment relationship (Rousseau, 1989). There is evidence that employees re-evaluate the content of their psychological contract with their employer based on the content and perceived salience of a change initiative (Bellou, 2007). If employees perceive the planned change as a breach of contract, this might negatively impact the employment relationship and thus CSB (Bellou, 2007).

Another variable related to the employment relationship is perceived organizational support (POS). POS describes an employees' perception of the organizations' attitude towards him/her (Self et al., 2007). More specifically, it refers to the degree to which employees feel valued, adequately rewarded for their performance, and supported during difficult times (Rhoades & Eisenberger, 2002). This perception is built through daily interactions with the organization and can trigger positive feelings towards the organization (Eisenberger et al., 1986). In case POS is high, it is likely that employees attempt to repay their organization for the perceived support (Cullen et al., 2014). These positive feelings were, in turn, found to positively impact employees' supportive behavior when it comes to change implementation (Self et al., 2007). However, if employees perceive support by the organization as low, this might lead to negative attitudes towards their employer and thus decrease CSB (Cullen et al., 2014).

### ***Trust in Management***

Another contextual factor that was found to impact employees' support of organizational change is the degree to which they trust their direct supervisor and executive management. Trust can be defined as "the willingness of a party to be vulnerable to the actions of another party" (Mayer et al., 1995, p. 712). Thus, to trust, employees need to hold positive expectations that the executive management and their direct supervisors do not take

advantage of their position of power and act for the benefit of employees (Mayer et al., 1995; Nyhan & Marlowe, 1997). The importance of trust when it comes to change implementation was confirmed by several studies (Gómez & Rosen, 2001; Schneider et al., 1996). Research shows that trust in management and supervisors is positively related to employees' sense of belonging, membership, and identification with the organization (Ertürk, 2008). Moreover, trust was found to decrease employees' resistance to change (Oreg, 2006) while increasing openness to change (Ertürk, 2008).

Devos et al. (2007) add to the concept of trust the importance of psychological safety when it comes to implementing change. Psychological safety refers to employees' perception that their work environment is safe to make mistakes and speak up about difficult issues without having to fear negative consequences from the management or supervisors (Burke et al., 2006; Edmondson, 1999). Relationships in which employees perceive psychological safety were confirmed to lead to higher support of change initiatives (Devos et al., 2007).

### **Individual Factors**

Individual factors are related to the individual attributes of employees that affect their motivation to engage in CSB. In their research, Straatmann et al. (2016) agree on the importance of individual characteristics when it comes to understanding employees' reactions towards change. However, they also state that individual characteristics are of limited use during change processes because "they are by definition often not changeable" (Straatmann et al., 2016, p. 272). Nevertheless, recent research shows that individual factors strongly affect employees' change-related attitudes and that individual factors can be used to support change processes (Hassan et al., 2020).

### ***Change Cynicism***

If employees had negative experiences with change initiatives, this can lead to cynicism towards change. Wanous et al. (2000, p. 135) define cynicism about organizational change as

“a pessimistic outlook for successful change and blame ‘those responsible’ for lacking the motivation and/or the ability to effect successful change.” Cynicism towards change usually emerges if employees experienced change efforts that were unsuccessful or not clearly successful (Reichers et al., 1997). This cynicism then leads to pessimistic outlooks toward change efforts as employees perceive responsible people as lacking the motivation or ability to successfully change (Wanous et al., 2000). Change cynicism was found to negatively influence employees' commitment towards change and the degree to which employees supported change initiatives (Rafferty & Restubog, 2010). Recent research by Ahmad and Cheng (2018) among public organizations supports this relationship indicating that indeed employees who experienced unsuccessful organizational changes in their past are less likely to support a change initiative. Noteworthy, there is evidence that positive evaluations of previous change initiatives are likely to increase employees' intention to support the implementation of planned changes (Fedor et al., 2006). Therefore, it can be assumed that previous experiences with change initiatives can positively as well as negatively affect employees' CSB, depending on the individual experiences.

### ***Change Fatigue***

Change fatigue is experienced by employees if they perceive “that too much change is taking place” (Bernerth et al., 2011, p. 322). Change fatigue differs from change cynicism in that it focuses on the number of changes that were taking place in the past, while change cynicism is about pessimism regarding new change initiatives (Bernerth et al., 2011). Change fatigue was found to lead to feelings of powerlessness and passive change acceptance (Beil-Hildebrand, 2005). Also, previous studies indicate that change fatigue negatively affects organizational commitment (Bernerth et al., 2011), which in turn is known to impact change efforts (Fedor et al., 2006). Moreover, there is evidence that change fatigue leads to distrust towards the management (Yu, 2009), which in turn was found to affect CSB (Devos et al., 2007). So far,

research in the field of change fatigue lacks in investigating the topic from a CSB perspective. However, the present study proposes that there is evidence that change fatigue negatively affects CSB.

### ***Public Service Motivation***

Recent research indicates that public service motivation (PSM) is an influential factor when it comes to CSB in public organizations. PSM can be defined as a “general, altruistic motivation to serve the interests of a community of people, a state, a nation or humankind” (Rainey & Steinbauer, 1999, p. 20). There has been a discussion going on whether PSM also leads to increased commitment if the change is not directly related to the improvement of services provided to the public (Wright et al., 2013). However, even under such conditions, PSM was found to positively affect employees’ commitment towards change (Wright et al., 2013). Additionally, there is evidence that PSM positively affects CSB because it leads to higher organizational commitment (Vandenabeele, 2009) and organizational citizenship behavior (Gould-Williams et al., 2013). This relationship was lately confirmed by Hassan et al. (2020), who found that employees with high PSM showed a higher willingness to engage in CSB. This provides evidence that employees with a high motivation to serve the public are more likely to engage in CSB, as long as the individual altruistic values and the perceived values of the change initiative are congruent.

## **Method**

### **Research Design**

While most of the studies that have been investigating the topic of CSB used quantitative approaches, the present study used semi-structured interviews to answer the research question. This decision was made because the exploratory nature of semi-structured interviews might enable participants to mention new insights on existing determinants and

determinants of CSB that have not been mentioned in the literature before. The present study was conducted with approval from the ethics committee of the University of Twente.

### **Research Context**

The interviews were conducted with employees from the University of Twente. The University of Twente is a public technical university located in Enschede in the Netherlands. The university is structured into five different faculties: Behavioural, Management and Social Sciences (BMS), Engineering Technology (ET), Electrical Engineering, Mathematics and Computer Science (EEMCS), Science and Technology (TNW), and Geo-Information Science and Earth Observation (ITC). Each faculty, in turn, is organized into several departments. The faculties are responsible for the day-to-day business and enjoy a certain degree of self-determination.

The research was conducted at the University of Twente because the university recently implemented a new mission, vision, and strategy called ‘Shaping 2030’. It was introduced by the university’s strategy and policy department, which is a central department of the university, detached from the faculties. The strategy aims at making the University of Twente the ultimate people-first university by shaping society, connections, and individuals. Several strategic goals were formulated, which required the active participation of the employees to be successfully implemented. Therefore, the University of Twente provided an adequate research context for this study.

### **Participants**

Several inclusion criteria were applied in recruiting participants. It was decided that only full-time employees should be included in the present study who belonged to the academic staff of the University of Twente. This included full professors, associate professors, assistant professors, researchers, and lecturers. Additionally, it was decided that only employees who had worked at the university for five years or more should be approached for the present



study. This was determined to ensure that participants know the organization, its culture, values, and structures to a certain degree. Lastly, it was important that each faculty of the university was equally represented in the sample. Therefore, only six participants per faculty were recruited. The sample was gathered using stratified random sampling. This technique is recommended if the population consists of several groups that need to be represented (Acharya et al., 2013). First, employees were sorted according to their faculty, using the university's directory. Next, employees who did not belong to the academic staff were excluded. Then every second employee was chosen to be approached.

Based on these inclusion criteria, 30 potential participants were collected from the universities' directory. All potential participants were then approached by the researcher via email. Those who did not respond within one week were sent a reminder. After the second week, 14 employees had agreed to participate, and appointments for the interviews were organized. Simultaneously, sixteen new potential participants were gathered based on the inclusion criteria and approached via email. Those who did not respond within one week were again sent a reminder. This procedure was continued until 30 participants agreed to take part in the study. In total, 120 potential participants had to be approached as many employees rejected to participate because of time issues and workload. Noteworthy, there were also few employees who refused to participate because they seemingly had bad experiences with previous change processes at the university. Eventually, the desired number of 30 participants was reached, and appointments were organized for the interviews. All interviews were performed online using ZOOM Video Conferencing.

Of the 30 participants, seventy percent ( $n=21$ ) were male and thirty percent ( $n=9$ ) female. This distribution is in line with the overall gender distribution of academic staff at the University of Twente (University of Twente, 2019). Participants had a mean age of 46.70

years ( $SD = 9.30$ ) and had worked on average 12.40 years ( $SD = 7.68$ ) years for the University of Twente.

### **Interview Guide and Procedure**

The interview questions were based on the literature review. Several existing quantitative studies were reviewed and used as a source of inspiration to design the interview scheme (e.g., Ahmad & Cheng, 2018; Devos et al., 2007; Straatmann et al., 2016). Due to the chosen method of semi-structured interviews, a standard set of questions was used across all interviews. However, the questions were designed open-ended to give participants the freedom to elaborate and give in-depth information on certain topics, based on what the researcher asked. The interviews were conducted in a period of four weeks, and the average time of an interview was 44.73 minutes ( $SD = 10.45$ ).

At the beginning of each interview, the participants were informed about their rights, that all data is treated confidentially and that they have the right to withdraw their participation at any point in time. Additionally, participants were asked for permission to record the interviews. If the participants agreed, the researcher started the interview by introducing the main ideas and objectives of 'Shaping 2030' to the participants. This was done because it was expected that not all participants would have the required knowledge about the strategy to be able to answer the questions of the interview. An infographic (see Appendix A) that had been created by the Strategy & Policy department of the university was used as a visual during the presentation. The infographic was shared with the participants during the whole duration of the interview.

After the strategy had been introduced, the interview started with the question, "*What is your first impression of this strategy?*". This broad question was aimed at getting the participants in an elaborating narrative mood and making them feel comfortable before moving to the more complex questions.

In the first set, questions related to the content factors that were derived from the literature review were asked. The researcher asked questions such as *“To what extent do you see your opinion reflected in the ‘Shaping 2030’ strategy?”* or *“Can you think of ways that the new strategy will impact your work or the UT as a whole?”*. Next, questions concerning the process factors were asked. This implied questions such as *“How do you think you could contribute to the goals of Shaping 2030?”* or *“To what extent would you participate in meetings or initiatives that are related to the goals of shaping 2030?”*. The second set consisted of questions about the contextual factors of CSB. This included questions such as *“How would you describe the relationship between you and the university as your employer?”* and *“To what extent do you think that you and the university share similar goals and values?”*. In the third part of the interview, questions about the individual factors were asked, such as *“What were your previous experiences with initiatives like Shaping 2030?”* or *“What was your first thought when you heard about the new Shaping 2030 initiative?”*. Lastly, the participants were asked for their age, their position within the organization, and how long they have been employed at the University of Twente. Table 1 indicates some example questions that were asked per determinant. The complete interview scheme that was used can be found in Appendix B.

**Table 1**

*Example Questions per Determinant*

Determinant	Example questions
<b>Content factors</b>	
Perceived outcomes	“How will the new Shaping 2030 strategy affect your work?”
<b>Process factors</b>	
Participation	“To what extent do you see your opinion reflected in the Shaping 2030 strategy?”
Communication	“To what extent was the information that I provided you new?”

*Table 1 (continued)*

<b>Context Factors</b>	
Quality of employment relationship	“How would you describe the relationship between you and the UT as your employer?”
Trust in management	“To what extent do you think the responsible people do a good job in preparing the UT for the future?”
<b>Individual factors</b>	
Change cynicism	“What are your previous experiences with change initiatives like the Shaping 2030 strategy?”
Change fatigue	“What was your first thought when you heard of the new initiative Shaping 2030?”
Public service motivation	“How would you describe your role as a lecturer and researcher within society?”

### **Data Analysis**

The recordings of the interviews were transcribed, and the qualitative data was then analyzed using a combination of deductive and inductive content analysis. The determinants that were derived from the literature review served as a starting point for the codebook. This was done for two reasons: Firstly, because the terminology should be consistent with earlier research so that future research can build up on the findings of the present study. Secondly, using them as a starting point would allow testing whether the results from the previous mostly quantitative research on the topic of CSB would also be applicable in the context of this study (Elo & Kyngäs, 2008). During the coding process, additional codes were added to the codebook that derived from inductive content analysis. This resulted in a codebook that eventually consisted of inductively and deductively derived codes. The full codebook can be found in Appendix C.

### **Intercoder Reliability**

In order to ensure the credibility of qualitative research, it is suggested to evaluate the intercoder reliability with a second researcher who had not been involved in the research.

Therefore, five interviews were coded independently by the researcher, and a second coder, accounting for 16 percent of the corpus. This is usually seen as a sufficiently high proportion of the data to calculate the intercoder reliability (O'Connor & Joffe, 2020). It was decided to use interviews from the beginning, middle, and end of the data collection process. This is recommended because researchers usually gain new insights during the data collection process that might affect follow-up questions and can narrow the scope of the researcher. By using interviews from the beginning and the end, potential data changes over the course of the interviews were included in the determination of the intercoder reliability (Graneheim & Lundman, 2004).

Cohen's kappa was calculated after each coding session. In total, three coding sessions were conducted in which 215, 227, and 242 text elements were coded. After the first coding session, Cohen's kappa for the category 'Process factors' was insufficient. In the second coding session, the intercoder reliability for the category 'Content factors' was deficient. After each coding session, all disagreements between the two coders were discussed. In the third coding session, a sufficient Cohen's kappa was reached for each category of the codebook. The inter-coder reliability for each category of the codebook can be found in Table 2. The general Cohen's kappa was 0.71, which is considered as a sufficient inter-coder reliability (Landis & Koch, 1977).

**Table 2**

*Intercoder Reliability Level for Each Category of the Codebook*

Category	Coded elements	Cohen's Kappa
Content factors	66	0.80
Process factors	89	0.69
Context factors	11	0.71
Individual factors	38	0.77

## Results

In the following, the outcomes of the data collection process will be described. First, the different factors of CSB will be discussed, and the insights participants gave on each factor will be shared. Subsequently, three main types of employees will be presented that could be identified based on the interviews.

### Factors of CSB

Overall, most text elements were assigned to the category ‘Process factors’ (n=466). The categories ‘Content factors’ (n=208), Individual factors (n=163) and ‘Context factors’ (n=83) received less but still considerable attention.

#### *Content Factors*

All codes that are mentioned under this category refer to the content of the change and how this content is perceived by the employees. Table 3 shows the codes and sub-codes that were linked to this category.

**Table 3**

*Text Fragments Assigned to Category ‘Content Factors’*

Code	Definition	Example text fragment positive	Example text fragment negative
Perceived outcomes  Positive: n=53 Negative: n=43	The degree to which the change is (not) supported because of its outcomes.	“This brings new opportunities for getting new funds, and it will also make it easier to have more collaborations.”	“If I hear this, my hair goes standing up, and I get very, very afraid of somebody telling me this because it feels like I will not be allowed to do fundamental research anymore or at least will not get the support anymore for my research. And if there is university funding, it will not go to this kind of stuff.”

*Table 3 (continued)*

Perceived necessity	The degree to which the change is (not) supported because of its perceived necessity.	“I’m sure there are some departments at the university that have to think on how to implement this. So, it’s good to remind some people of our key values.”	“I am a bit cautious because I have my doubts whether this is really necessary. Or whether it is just something to keep people busy.”
Positive: n=28			
Negative: n=22			

**Perceived Outcomes.** The code ‘Perceived outcomes’ was the most frequently mentioned single code. Almost every participant mentioned different outcomes that the new strategy could cause. As these outcomes were perceived differently by the participants, it was necessary to divide the code into sub-codes with different sentiments. In total, there were four sub-codes. Participants mentioned positive expected outcomes (n=53), negative expected outcomes (n=43), and no expected outcomes (n=32).

**Positive Expected Outcomes.** This code refers to the degree to which participants had positive expectations towards the outcomes of the change and thus intended to support the change. During the interviews, it turned out that several participants expected positive outcomes from the introduction of the new strategy. Participants mentioned certain aspects that they either expected to have positive outcomes for their work or the university as a whole. When talking about positive effects on their own work, participants especially supported the aim of the strategy to increasingly foster collaborations. Typical statements participants made here were:

I am working together with many people from other places. Now I still have money from another project to do that, but this will end soon. Shaping 2030 could make that I finally receive the support from the university to organize the workshops I want to

organize and to use the facilities here for that purpose without having to pay the outrageous fees that facility management asks for it (interview 10, assistant professor).

Another aspect many participants expected to positively affect their work was the focus on personalized talent development. For example, one employee mentioned:

I can imagine that this strategy leads to the fact that teaching will be more rewarded if the university says that shaping individuals are important. I mean we they already did a bit towards that, but still, it is mainly about research output and getting grants. So, I would welcome it very much if that would become more equal (interview 3, associate professor).

A part that was perceived as controversial in the interviews was the increased focus of the new strategy on applied science. While some employees perceived this part as potentially dangerous, others saw it as beneficial. For example, one employee said:

With this strategy, it is not only important that I publish in an academic journal but that I also translate this into something relevant for society. We all do that already, of course, but maybe that becomes even more important. I definitely believe that becomes more important. This is just a very good development because we should do much more to show how we can translate our research results into something of value for companies for the society at large, or people around us (interview 1, assistant professor).

When talking about expected positive outcomes for the university as a whole, it was especially argued that the new strategy could help the university to position itself, which according to the participants, would make it more attractive for new employees and students.



Noteworthy, a minority of participants not only perceived certain parts of the strategy as beneficial but its whole content. As an example, one employee stated (interview 13, associate professor): “I think overall the content of the Shaping 2030 document is very good. So, I think the goals that are included are very nice, and it is really in line with where science should be going in the future”.

***Negative expected outcomes.*** Even though many participants mentioned positive outcomes that the new strategy might bring, almost equally many concerns were voiced by participants. Contrary to the positive expectations that were quite diverse, the negative expectations were focused mainly on one topic. Participants were afraid that the focus on applied science might be too strong and thus the fundamental science will be disregarded. Therefore, especially participants from the rather technical faculties voiced perceived negative outcomes for their own job. As an example, one employee described:

If I hear this, my hair goes standing up, and I get very, very afraid of somebody telling me this because it feels like I will not be allowed to do fundamental research anymore or at least will not get the support anymore for my research. And if there is university funding, it will not go to this kind of stuff (interview 10, assistant professor).

Another employee added:

I think such a strategy should never be used to restrict research that does not perfectly align with that strategy. I think it is important that everyone has the freedom to do the type of research that person really wants to do. This should not be based on relatively short-term vision documents (interview 13, associate professor).

However, participants also mentioned concerns for the university as a whole as another employee mentioned (interview 11, assistant professor): “The danger of becoming more practical is that we are becoming more of an engineering office than a science institute.”

Worries like this were most frequently mentioned by employees from the more technical faculties. Noteworthy statements like this were frequently coded with the code ‘Unclear meaning’.

Another concern that was mentioned by employees was that an increased focus on collaborations, and especially collaborations within the university, might lead to difficulties when applying for research funding. Even though employees were from a theoretical perspective in favor of doing interdisciplinary research at the university, however, as one participant exemplarily argued (interview 10, assistant professor): “This might be interesting, but you also need to look at the funding landscape. It is not easy to get your funding approval approved for these types of research”.

Additionally, many participants feared that the new strategy could affect them negatively through an increased workload. Exemplary one employee said (interview 16, associate professor): “It seems like there is an idea of implementing many things, but nobody is taking care of how this increased load can be handled by us teachers.” This concern was shared by other employees who fear (interview 23, assistant professor): “Implementing these things is likely to cost me so much time that I end up in a situation like many of my colleagues that our academic freedom is what we do on the weekends.” Statements like this were often also coded with ‘Change-related self-efficacy’.

***No Expected Outcomes.*** This code refers to the degree to which employees do not support a change because they do not feel that the change will affect them, neither positively nor negatively. This code had not been mentioned in the reviewed literature before in regard to CSB and was derived from inductive content analysis. Indeed, many participants felt like the new strategy would be something far away from their work and more focused on the

higher levels of the university. On the question what his/her initial thoughts about the new strategy were, one employee answered:

That was probably in the faculty council at some point that it came through. That we are doing this and that because of strategy blah blah blah. And as I said, usually I'm like yeah, okay, I'm not reading this. I have better things to do, and it will not affect us much anyway (interview 10, assistant professor).

Thoughts like this were mentioned by many employees throughout the different faculties.

Many participants also shared the thought that the new strategy was, in fact, not that new but rather very similar to the old strategy but in a new wording. Exemplary, one employee said:

Under this strategy, I will be doing the same as before, just under another strategy. And obviously, that is strange that if you develop a new strategy, and then you go into your organization and say, yeah, but actually it is the same as the last one but with different names. I have no good solution for it, but I think that sometimes people on the work floor indeed think what is different? (interview 21, lecturer).

Attitudes like this became especially salient towards the new strategy when employees saw the urgency for changes but did not perceive that specifically, this strategy would change things for the better. As an example, one employee argued:

I see this as sales talk that will not change the problems that the workforce has. We have an increasing workload and pressure. I know people that work 60 hours a week, and still answer emails at 11 pm, and do their research on the weekends because of too many administrative tasks. So, these are the real problems, and right now, I don't see how this will be changed through this strategy (interview 9, researcher).

Noteworthy, this code was frequently assigned together with the code ‘Change cynicism’ and ‘Implementation measures’.

**Perceived Necessity.** Perceived necessity refers to the degree to which employees support the change because they see the urgency for it. This code had not been mentioned in the reviewed literature before in regard to CSB and was derived from inductive content analysis. Interestingly, the number of text fragments that were assigned to this code was almost equally divided into people who perceive the change as urgent while the others do not perceive the new strategy as necessary and thus do not intend to actively support it.

Participants who did not perceive the new strategy as necessary usually argued that the current state in which the university is would be sufficient. As an example, one participant argued (interview 7, researcher): “We should, of course, listen to what society wants, but I think they do this already quite good.” Similarly, another participant stated (interview 21, lecturer): “I think the university was doing good despite changing strategies.” For many participants, the question was why they would need a new strategy giving the fact that they were able to do their work also without knowing about the strategy. Moreover, it turned out that participants often perceived ‘Shaping 2030’ as similar to the old strategy. This often caused employees to question the necessity of the new strategy. Exemplary one participant said:

You need a new strategy if you think that your old one is no longer appropriate. But not for the sake of every three years we should have a new strategy. If you are just going to rewrite things in different terms, you should not spend that much time on it (interview 21, lecturer).

Interestingly, participants who perceived the strategy or certain parts of it as not necessary usually also criticized a lack of communication.

Participants who perceived the new strategy as necessary usually also articulated their intention to support the implementation of the new strategy. Many saw it as important that the university implements the changes that were mentioned in ‘Shaping 2030’. For example, a participant mentioned:

I think it is very necessary to have a strategy that also reflects societal developments.

This one does not look very much different from what we are doing already, but I still think it is important to align the strategy of the university with societal developments.

I think there is more we can do as a university (interview 17, full professor).

This thought was shared by many participants who also pointed out that it might be necessary to implement the vision of ‘Shaping 2030’ university-wide, even though it does not differ much from the status quo. Especially when it comes to topics such as inclusiveness and personalized talent development, participants perceived developments as necessary.

Exemplary, a participant explained (interview 10, assistant professor): “I still hear stories of very conservative departments where groups of old men hire their male friends and stuff like that. I think there improvements could be needed”. Another participant added (interview 24, full professor): “I am sure that there are some departments in the university that have to think on how to implement this, so it is good to remind some people of our key values.” Also, when it comes to the rewarding of teaching in comparison to the publication of research and getting research funds, many participants saw the need for fairer treatment.

### ***Process Factors***

The category ‘process factors’ was the most frequently mentioned category during the interviews. The codes assigned to this category refer to the way the new strategy ‘Shaping 2030’ is implemented. In Table 4, the codes and sub-codes that were linked to this category are presented.

**Table 4***Text Fragments Assigned to Category 'Process Factors'*

Code	Definition	Example text fragment positive	Example text fragment negative
Work alignment  Positive: n=66 Negative: n=43	The degree to which participants do (not) support the change because it is (not) in line with their work anyways.	"In my department, some of them are already guiding principles in our work anyway."	"I consider myself a hard science scientist because I work with mechanics and materials and so on. Therefore, this shaping society thing is a little bit far away from me."
Communication  Positive: n=0 Negative: n=71	The degree to which employees feel that they (do not) have all information necessary to support the change.	n/a	"We need a strategy. But with this one, it's not for everybody clear where we go content-wise, I think."
Implementation measures  Positive: n=0 Negative: n=104	The degree to which employees do (not) support the change because they do (not) think that the measures for implementation are adequate or will be successful.	n/a	"Interdisciplinary research, of course, is good. But I know that for external funding, it's very difficult. So, e.g., when we want to collaborate with medicine when you apply for a grant, it may happen that they say, well, no, it's too practical. Then you go to the medicine people, and they say no, it is too mathematical."

*Table 4 (continued)*

Participation	The degree to which employees do (not) support the change because they do (not) feel that they can participate in the change process.	“The process of Shaping 2030 was very good. It involved a lot of people working at the University from different faculties, so very bottom up. That was very nice.”	“I think the approach was used at least at the beginning was really keeping people really distant and also the initial round tables were very vague and abstract. I heard several times that people who have participated in one didn't go anymore because they didn't see the point of that.”
Positive: n=13 Negative n=50			

**Work Alignment.** This code had not been mentioned in the reviewed literature before in regard to CSB and was derived from inductive content analysis. Work alignment refers to participants who mentioned that they already work in line with the new strategy. Noteworthy, most of those participants had that style of working already before the new strategy was formulated. Nevertheless, there were also a large number of participants who argued that the new strategy or certain parts of it could not be aligned with their day-to-day work. One participant who already worked according to the ideas and values mentioned in ‘Shaping 2030’, for example said (interview 2, assistant professor): “In my department, some of them are already guiding principles in our work anyway.” For some participants, this was the case for the whole strategy. However, for most participants, this was only the case for certain aspects of the strategy. One participant, for example, stated:

I see my role very much in shaping connections. I think because this is what we do when we do the research ourselves, or when we supervise master or bachelor students

with their thesis, for example. But also, we have this alumnae board, and so there are lots of connections, and I'm also involved in many of these (interview 1, assistant professor).

Interestingly also participants who presented themselves quite critical towards the new strategy oftentimes saw certain aspects of the strategy reflected in their work.

Nevertheless, some participants saw the new strategy as contradicting their work. This was especially the case for participants from the more technical faculties at the university. Not surprisingly, participants who feared negative expected outcomes also oftentimes did to see how their work could align with 'Shaping 2030'. As with the negative expected outcomes, the reason for this was, most of the time, the increased focus on applied science. Participants who were focused on fundamental research foremost, therefore, often perceived the new strategy as contradicting their work. Still, few participants mentioned being focused on fundamental research and nevertheless saw the strategy aligned with their work. These participants saw their role as fundamental researchers as contributing fundamental knowledge that could then be applied by colleagues in more practical projects. In general, it was striking that while some fundamental researchers perceived the strategy as threatening, others rather saw it as an opportunity. Noticeable, participants who saw the strategy as contradicting their work because of a too-narrow focus on applied science were oftentimes unsure about the extent to which the new strategy might contradict their work. Text fragments in which these things were mentioned were frequently coded together with 'Unclear communication' and 'Measures for implementation'.

**Communication.** Communication was mentioned by many participants as a crucial point to successfully implement the new strategy. In general, the communicative efforts that had been made were perceived as insufficient. This is reflected in the fact that all statements



related to communication were negatively connoted. Most participants perceived a lack of communication and an inadequate choice of communication channels. When asked whether he/she had known anything about 'Shaping 2030' before the interview, one participant said (interview 7, researcher): "No, it was completely new for me. I think it might have been in one of these newsletters that we get from the University and which I very hardly read actually. I find it a bit of a waste of time compared to the other priorities that I have".

Statements like these occurred throughout the data collection process. Participants criticized that the information about 'Shaping 2030' was communicated through unsuitable communication channels and generally that the receipt of information was very much based voluntarily. Especially the newsletter was a point of critics as many employees indicated they would hardly read it. Exemplary a participant argued:

People usually skip the newsletters that they receive with this kind of information, I think. So, I included. I think it is important that these things are not only voluntary. So, there should be meetings and presentations that people need to attend where this information is presented (interview 3, associate professor).

This opinion was shared by the majority of participants. Due to this lack of information received so far, many employees were not aware of certain implementation measures that were initiated. This led many employees to question whether there would be concrete actions behind the vision of 'Shaping 2030'. Statements like this were frequently assigned together with the code 'Implementation measures'.

Participants suggested that besides the choice of the communication channels, also the frequency of information about 'Shaping 2030' should be optimized and increased. As one participant exemplary summarized:

If they want this to become a reality and be carried by all the employees, they need to communicate it better and more. Tell the people what the Shaping Expert Groups are doing and tell them, first of all, that they exist. I think many people don't even know that. And if things happen because of things that the SEG did or anything that happened because of Shaping 2030, link it to the strategy because otherwise, people might not recognize that there even is a relationship (interview 28, assistant professor).

The notion of linking certain actions that have been taken as a part of the new strategy also communicatively to 'Shaping 2030' was made by several participants. Moreover, especially the fact that

When it comes to informal communication, such as the exchange of information about the new strategy with peers and colleagues, almost all participants argued that this way of communication was very limited due to the COVID-19 measures that require most staff to work from home. This was mentioned, for example, by one participant who stated:

That's something that doesn't occur much when working online. I think it would be very different if we were just all on campus, and I would go for coffee and meet someone, and then some spontaneous discussion starts. I think that is actually the context in which such visions are brought to life, and that just doesn't happen (interview 4, assistant professor).

A sub-code of 'Communication' was the code 'Unclear meaning'. For many participants, certain parts of the strategy were unclear or vague. Representatively for many from the rather technical faculties, one participant said:

If you would ask me to go to a conference and promote the University, and I would have to tell people that we are the ultimate people first university, I would have no

idea what that would even mean that we are a people-first University of technology.

So, we are not technology first anymore? I don't know. So, I have no idea what this means (interview 10, assistant professor).

Statements like this were also made for more detailed aspects of the strategy. This was especially the case of participants who indicated that they had a low level of pre-knowledge about the new strategy.

**Implementation Measures.** Implementation measures refer to concrete measures that aim at filling 'Shaping 2030' with concrete actions. This code had not been mentioned in the reviewed literature before in regard to CSB and was derived from inductive content analysis. During the interviews, participants agreed upon the importance that the new vision is backed up by concrete measures that facilitate the implementation process. However, many participants had doubts whether there are concrete implementation measures behind this vision of 'Shaping 2030'. Representatively for a majority, one participant said (interview 16, associate professor): "I'm wondering how concrete this will be and how much it will stay words." This thought was shared by another participant who argued (interview 27, assistant professor): "The danger is that it is just a lot of air, just a lot of sentences, and there are no actual measurements being done." Statements like this were made by employees from all faculties. This unclarity made it also difficult for employees to judge the degree to which the news strategy might impact their work and the perceived outcomes of the change.

Participants from the more technical faculties, however, often added the difficulty of measuring the extent to which certain parts of the new strategy were reached or not. As one participant put it (interview 27, assistant professor): "How do you put a number behind this? If you can't do that, you cannot claim that you are the ultimate because there's no means of proving that. And then it's just a vague marketing term if you say that's the ultimate people

first university”. Even if participants had certain measures in mind that could follow from the new strategy, many employees had doubts whether they could realistically be implemented. This typically involved factors that were beyond the control of the university, such as the research funding. Exemplarily, one participant argued:

Interdisciplinary research, of course, is good. But I know that for external funding, it's very difficult. So, e.g., when we want to collaborate with medicine when you apply for a grant, it may happen that they say, well, no, it's too practical. Then you go to the medicine people, and they say no, it is too mathematical (interview 11, assistant professor).

Participants who either had doubts during the interviews that there would be concrete measures behind ‘Shaping 2030’ or did not think that the mentioned goals could realistically be reached due to factors outside the control of the university were generally less inclined to support the new strategy by engaging in CSB.

During the interviews, many participants made suggestions on how the strategy could actually be implemented. To turn the new strategy into daily practice, participants pointed out the importance that the strategy is carried by the different faculties of the university. This means that decisions in the day-to-day business of the faculties should be made in line with the values and goals mentioned in the strategy. This is because participants argued that their daily business is mostly influenced by the policy of the faculty they are working for. As one participant argued:

To achieve the goals of this strategy, we have all these initiatives and shaping expert groups. But all those initiatives are outside and independent from the faculties. But it is the faculties where our core processes lay. If you want to make this tangible and

actionable, you need the faculties. They can make or break this (interview 6, full professor).

The notion that the faculties must act in accordance with the new strategy if the strategy should successfully be implemented was made by many participants. However, there were doubts whether the measures that were already initiated by the university would be adequate to roll out the strategy at a faculty level. As one participant mentioned:

Of course, each faculty is forced to subscribe to the goals of Shaping 2030, but I fear the faculties will mainly just continue what they are doing and not really back up the whole vision behind it. I think the roll-out within the faculties should be more explicit. We should make choices and also stop things that are not contributing to this anymore (interview 6, full professor).

Noteworthy, some employees perceived it as dangerous that ‘Shaping 2030’ could be used as something to restrict research that is not in line with the new strategy.

**Participation.** Participation relates to the degree to which employees perceived to have a say in the strategy process. There were employees who recognized and appreciated that the strategy process involved several rounds of bottom-up input. One employee, for example, said (interview 27, assistant professor): “I like the way that they did it. And that they did not do it themselves or hired an agency to do it. It really came from the people from the University”. However, many participants acknowledged that even though they had the opportunity to join these discussions, they decided not to do it or only joined once. When asked why participants usually argued that they either had time issues or did not like the formats in which the discussions took place. One employee mentioned:

There were these roundtables open to everybody. But then students, employees, management, and professors had to participate altogether. So probably that was

supposed to be the first way to get information and then putting this thing together in a more selected working group. So, the options for participation were there, but I think they were not appropriate to the system of the university. Too open. Sounds crazy, but that's it (interview 16, associate professor).

This perception was shared by many employees. In general, participants did not see the point in joining discussions that took place on a university-wide level and not on a faculty level. When asked what would be necessary to increase employee's participation in the strategy process, almost all employees argued that they would prefer to join the process on a faculty level. This was exemplarily supported by one employee who argued (interview 15, researcher): I would participate. However, I think it would be more interesting on a faculty or department level. A discussion with the whole university might become too broad. And then the whole problem starts again that everything becomes a bit vague".

During the interviews, it turned out that several participants already had participated in, for example, a working group, discussion, or roundtable related to 'Shaping 2030'. When asked for their motivation to join these initiatives, most participants indicated that they joined because they were asked for support by these groups. This was supported by an employee who mentioned: "You can send them a mail, but most people are so busy that they skip them. However, if you would invite them personally to certain meetings or round tables, that might be different". Noteworthy, some employees did not intend to participate in the strategy process. These participants oftentimes stated that they do not have much to say about the new strategy and therefore would not see the point of joining the process. Especially statements made from employees who did not intend to join the process were frequently assigned together with the code 'Change-related self-efficacy'.

***Context Factors***

All codes that are summarized under the category of context factors are related to the environment in which the change takes place. Table 5 shows the codes that were linked to this category.

**Table 5**

*Text Fragments Assigned to Category 'Context Factors'*

Code	Definition	Example text fragment positive	Example text fragment negative
University Identification  Positive: n=10 Negative: n=32	The degree to which employees (do not) feel connected to the organization and its values thus (do not) support the change.	"I do not consider myself connected to my faculty. It is just the university as a whole for me."	"I feel connected to my colleagues and my department. But the UT is quite far away for me."
Perceived organizational support  Positive: n=4 Negative: n=24	The degree to which employees (do not) feel supported by the organization and therefore (do not) support the change.	"I think from a research and teaching point of view, I have all the opportunities to do what I want to do."	"I am very worried about climate change, and I would love to spend time and my knowledge there. But I don't have the possibilities at the moment. I don't see them."
Trust in management  Positive: n=0 Negative: n=13	The degree to which employees (do not) support the change because they (do not) trust the management.	n/a	"The executive board would need to want the change. I doubt whether they really want to change or whether this is only how they want to be perceived from the outside but actually are not willing to change things from the inside that would cost them money."

**University Identification.** When asked about their relationship with the university as an organization, several employees mentioned that they rather feel connected to their department or their faculty than to the university as a whole. Exemplarily, one employee said (interview 13, associate professor): “The faculties by themselves are rather distinct entities. They're almost like different companies within a bigger structure that is then the University of Twente”. Especially participants from the more technical oriented faculties indicated to have a stronger connection with the faculty and their department than with the university as the main organization. When talking about the degree to which he/she feels connected to the different institutions within the university, one employee summarized (interview 22, assistant professor): “For me, the order would be faculty, departments, university.”

Nevertheless, some employees also felt connected to the university as a whole entity rather than only to their faculty. For instance, one employee mentioned (interview 20, full professor): “Partly because of this shaping discussion I feel more and more also connected to the UT. Because they are making this change towards being useful in society in all kinds of ways, which suits me very well”. This was especially the case for employees who already were part of working groups or round tables related to ‘Shaping 2030’ or participants who already worked in higher positions within the organization.

**Perceived Organizational Support.** As indicated in Table 5, the code ‘perceived organizational support’ only received limited attention in terms of elements assigned to this code. However, out of thirty participants, twelve participants mentioned negative experiences when it comes to perceived organizational support, whereas three had positive experiences. Participant’s main point of criticism was that activities that are now in line with the new strategy were formerly not rewarded by the university. For example, one participant criticized:



I'm also collaborating with X, I'm collaborating with other people in X, but usually, it doesn't fit into these strategies. I'm okay. I'm just doing it anyway, but if you then see this in the strategy, you're a bit like I'm doing this all the time. Why do other people now need to get money for that (interview 10, assistant professor)?

Participants argued that before the new strategy was about to be implemented, activities that were in line with the values that the new strategy now proposes were not rewarded adequately.

Participants also mentioned a lack of personal support when it comes to the integration of foreign employees or the personal well-being of employees. For example, one employee said (interview 8, assistant professor): "We have to perform for 100% or 1000%. I think there may be some guidance could be offered. Because we have to do a lot as an employee, as a researcher and as a teacher". Another employee added (interview 26, full professor): "I was very unhappy when the UT went in the direction of saying everything is temporary, and everybody has to be on these tenure tracks. I saw that as a lack of solidarity towards its employees". Overall, many participants perceived a lack of support by the university, whether it comes to the rewarding of activities that are in line with the values of 'Shaping 2030' or rewarding and recognizing the work of employees in general. Nevertheless, participants who complained about a lack of support usually saw 'Shaping 2030' as a chance for improvement. However, 'perceived organizational support' was also frequently coded with 'change cynicism'.

**Trust in Management.** The fact that only a very limited number of text elements were assigned to this code already indicates that participants did not indicate trust in management to be a prominent factor when it comes to their CSB. When asked to what extent they think that the management does a good job in leading the university, no participant

voiced direct criticism about the upper management. Nevertheless, often participants voiced indirect criticism by referring to the new strategy, for example, as management talk. Many participants had doubts whether the management actually will take actions towards the new vision proposed by ‘Shaping 2030’ or whether it will stay words. One participant, for instance, explained: “As soon as we do things ourselves quite often, one of the Deans or managers will call us into their office and say, hey, you shouldn't have done that because it's outside the rules. Well, if the new strategy implies thinking outside the box, then that's a problem”. Especially when it comes to actions towards the new strategy that would cost the university money, participants doubted how seriously the upper management would stand behind ‘Shaping 2030’. These doubts were mostly caused by previous experiences participants had. For example, one participant said:

There were small sums of money available for researchers who wanted to work on the pandemic. But I did not react to that because one of the requirements for getting the money was that the research should raise media attention. And that's terrible. That's not inclusiveness. That's not open, that's not people first, that's university first (interview 5, assistant professor).

Participants who had such experiences were usually more skeptical to what extent the management would actually support the implementation of the new vision. Noteworthy, statements like this were oftentimes assigned together with the code “change cynicism.”

### ***Individual Factors***

Individual factors are related to individual attributes of employees that affect their CSB.

Table 6 shows the codes that were linked to this category.

**Table 6***Text Fragments Assigned to Category 'Individual Factors'*

Code	Definition	Example text fragment positive	Example text fragment negative
Change cynicism  Positive: n=0 Negative: n=78	The degree to which employees have a pessimistic attitude towards the change and therefore do not support the change.	n/a	"I can remember that there was a strategy we had before Shaping 2030. But I do not know much about it. Most of the time, I did not see any benefit in engaging in these things.
Change-related self-efficacy  Positive: n=0 Negative: n=39	The degree to which employees (do not) support the change because they (do not) think they are able to fulfill the situational demands.	n/a	Even if I would like to participate, I am sometimes so busy that if just not possible. So there needs to be time to do these things, and this time can only be spent once."
Public service motivation  Positive: n=26 Negative: n=0	The degree to which employees support the change because of individual altruistic values.	"I think we have an obligation to really show that we are not using the university because we want to do research, but that it leads to something that can be of value for society."	n/a
Change fatigue  Positive: n=0 Negative: n=7	The degree to which employees do not support the change because too much change is happening.	n/a	"My first thoughts were, oh dear, yet another strategy document to work on and fill. I've worked on too many strategy documents by now to automatically appreciate a new one on the horizon."

**Change Cynicism.** Cynicism towards the change occurred during almost all interviews to a certain extent. In total, 25 out of 30 participants voiced cynicism towards ‘Shaping 2030’. However, there were some patterns that could be identified. First, participants questioned whether it would even be possible to successfully implement the vision behind ‘Shaping 2030’. This is related to the previously discussed code ‘Implementation measures’. Secondly, participants questioned the extent to which the management had the willingness to engage in the activities that would be required to add authority to the implementation of the new strategy. This attitude of participants is related to the previously considered code ‘Trust in management’. Finally, and one of the most frequently mentioned reasons why participants did not expect any benefit from engaging in the new strategy, were the experiences they had with previous strategies. Almost every participant at some point during the interview referred to the previous strategy that the university had until the year 2020. Interestingly, not a single employee could remember the name nor the content of that previous strategy. Participants then usually tried to remember whether the previous strategy brought them any benefits, which usually was not the case of participants could not remember. As an example, one participant said (interview 18, researcher): “There was also a strategy for 2020. I don’t know what its name was, but what did it change? I can’t really think of anything.” Statements like this were frequently made by participants throughout all interviews.

Noteworthy, cynicism occurred during interviews with participants who had a rather negative attitude towards the change as well as in interviews with participants who saw the new strategy generally as beneficial.

**Change-related self-efficacy.** This code had not been mentioned in the reviewed literature before in regard to CSB and was derived from inductive content analysis. Throughout many interviews, participants indicated a low change-related self-efficacy. This

means that participants oftentimes did not think that they could fulfill the situational demands that supporting the new strategy would require. One of the most frequently mentioned problems was that participants argued they would not have the time to engage in actions related to 'Shaping 2030'. Exemplarily, one participant said:

I just talked to one of the professors, and he said that he got used to working over the weekends. And I thought that's not how it should be. A lot of people who engage in activities related to Shaping 2030 do that in their spare time. So, for me, the biggest issue is that for most people, there is just no time for engaging in these things (interview 19, assistant professor).

Almost all participants pointed out the high workload they usually face. The new strategy was seen by many as an addition to this already high workload. As one participant stated:

What I'm afraid of is that this leads to a lot of additional requests to do certain things and change things which will cost me so much time to implement, that indeed that's taken away from the other time that I have. And that I am in this situation, like many that essentially our academic freedom is what we do on the weekends (interview 23, assistant professor).

Most participants indicated that they already lack time to do what drives and motivates them in their work, whether it be teaching or doing research, because of too many administrative tasks and requests. Therefore, participants indicated that supporting 'Shaping 2030' by engaging in CSB was not one of their foremost priorities. Therefore, participants suggested that the new strategy should not only include activities the university wants to focus on more but also things that should not be done anymore. As an example, this was supported by an employee who argued (interview 24, full professor): "There are no things that I would not like to prioritize. I always miss the list of things that we can discontinue." This way,

participants argued, that room could be made for the new activities that are in line with ‘Shaping 2030’.

Noteworthy, some participants also mentioned that they were struggling with specific activities that are part of the new strategy. For instance, one participant said (interview 10, assistant professor): “I am collaborating a lot with people outside this University. However, I find it very difficult to collaborate with people inside the University for some reason which I can't really explain.” Participants suggested that there should be more concrete and guiding structures to support employees in aligning their work with the vision proposed by ‘Shaping 2030’ to be able to engage in CSB.

**Public Service Motivation.** Participants frequently mentioned having certain altruistic values that affect their way of working. These participants usually thought that they, as academic staff at a university, have an obligation towards society. Almost all participants argued that it is the responsibility of a university to do research that can be of benefit to society. For instance, one participant said (interview 13, associate professor): “I think we have an obligation to really show that we are not using the university because we want to do research, but that it also leads to something.” Additionally, participants mentioned that they have a responsibility in their role as lecturers because they would influence the next generation of academics. The degree to which participants thought that ‘Shaping 2030’ might help them to fulfill these responsibilities differed. While some saw a clear connection and perceived it as helping them to fulfill their role within society, other participants did not see this connection. Participants who had a strong sense of public service motivation were generally more inclined to engage in CSB. However, this also depended on whether employees saw themselves in the position to have a societal impact. Especially, employees from the technically oriented faculties oftentimes did not see themselves in such a position.

**Change Fatigue.** Six out of thirty participants mentioned a feeling of change fatigue during the interviews. When asked what their first thought was when hearing about the new strategy, many participants felt like one employee who said (interview 12, associate professor): “My first thought always is, why again a new strategy?”. Interestingly, these initial reactions towards the new strategy did not automatically lead to a resisting attitude towards it. This usually depended on whether employees perceived the new strategy as necessary or not when hearing about it in more detail. Participants who did not perceive it as necessary were unlikely to change their initial reaction, while participants who perceived it as potentially beneficial oftentimes changed their initial reaction. While a notable number of participants had the feeling that too much change was happening, almost no employee indicated to have previous experiences with change initiatives. The only initiative that came to people’s minds was the former strategy for the year 2020 that was already mentioned in the chapter ‘Change cynicism’.

### **Types of Employees**

Overall, three main types of employees could be identified during the data collection process: Employees who intended to or already supported the change, employees who supported the change indirectly because the new strategy is to a certain extent in line with how they already approach their work, and lastly, employees who did not intend to engage in CSB.

### ***Supporting Employees***

Six out of the thirty participants already were or had been involved to some extent in the strategy process. These employees could usually be divided into two groups. The first group consisted of employees who initially welcomed the new strategy. These individuals usually perceived the new strategy right from the start as beneficial and necessary. Oftentimes these employees were unsatisfied with the status quo and saw the new strategy as a way to change this for the better. Moreover, these participants usually perceived the new strategy to have

positive outcomes and aligning with their work. However, there was also a second group of employees who initially were skeptical towards the new strategy. They usually did not perceive it as necessary and/or beneficial right from the start. These employees oftentimes indicated that they were asked for support or expertise by a valued colleague and therefore joined the strategy process. Otherwise, these participants usually would not have joined the process. Exemplarily, one participant said:

My first thought when I heard about the new strategy was that I had lived happily at the university for 20 years without ever knowing what the strategy was, and therefore I wondered what the practical value of an overall strategy was. But for quite some time, I was not happy with how the university was developing. So, I thought instead of complaining, I have to do something about it. And I liked X (colleague who approached him/her). I had the impression that with him/her, we have a good chance of changing some things (interview 26, full professor).

Participants who then joined the process indicated that they were surprised by the measures and activities that were developed in the context of 'Shaping 2030', which they were not aware of when being outside of the strategy process. When asked why he/she decided to engage in the strategy process, one participant who initially was very skeptical towards the change argued:

I was surprised by the shaping expert groups. I didn't expect something like this to be there. I found it a good initiative to involve people. And the people that contacted me from the shaping expert group were people I have a great opinion of, so I decided to support them (interview 16, associate professor).



***Employees with Intention to Support***

The majority of participants were not already involved in the strategy process. However, fifteen out of the thirty participants mentioned the intention to engage in CSB. These participants usually saw the new strategy as beneficial when they heard about it the first time and perceived it as necessary. However, even though many employees indicated their curiosity was raised when they heard about ‘Shaping 2030’ for the first time, they usually did not make an effort to further inform themselves about the new strategy or ways in which they could engage in the strategy process. Exemplarily, one participant who formulated the intention to engage in CSB, answered when asked about her first thoughts when he/she heard about ‘Shaping 2030’ for the first time (interview 30, assistant professor): “I thought interesting, what is it going to be about? I was mainly curious. But then, I must say I actually didn't put much effort into looking it up. So, I was a bit lazy. But I do remember that the first thing that I felt was okay interesting”.

Noteworthy, the majority of these participants attached their engagement in the strategy process to certain requirements. These were usually requirements regarding the format in which they could imagine engaging in or requirements regarding workload. For instance, most participants could imagine joining meetings on a faculty or department level to discuss how their day-to-day work could be brought into alignment with ‘Shaping 2030’. However, most participants could not imagine engaging in such activities on a university-wide level. Moreover, participants pointed out that their engagement in such activities would require time which they usually lacked, as almost all participants indicated to have increasingly high workloads.

These participants perceived the implementation of the new strategy as necessary. However, they often had doubts about the degree to which a successful implementation would be possible. Especially when participants experienced behaviors by the management

that contradict the values proposed by the new strategy, this sometimes led to cynicism towards the change. Nevertheless, these participants believed that the new strategy would be necessary and intended to engage in the implementation process.

### ***Employees without Intention to Support***

Nine out of the thirty employees did not mention the intention to support the implementation of 'Shaping 2030' by engaging in CSB. There were different reasons for this negative attitude towards the change. Firstly, some of these participants did not perceive the new strategy to be necessary. These participants usually also doubted whether the strategy would truly change things. Also, these participants oftentimes did not see themselves in the role or position to affect the strategy process. When asked whether he/she thinks to have a role in the strategy process, one participant said (interview 11, assistant professor): "No. One reason is that I don't feel that I have that much to say about these things. And I will retire in a couple of years. I do not think I have a role in there."

Another group of employees saw parts of 'Shaping 2030' as potentially dangerous or not necessary. Noteworthy, most of the participants who perceived certain parts of the strategy as potentially threatening still intended to join discussions about its implementation on a faculty or department level to influence the process through their participation into a from their perspective more favorable direction. Moreover, participants who did not mention the intention to engage in CSB oftentimes did not believe that the strategy would truly change things. Exemplarily, one participant argued:

I would be happy to join meetings as long as it's clear that they have outcomes and that they're just not just talking groups. Somehow you need to create the awareness that this strategy will actually lead to something. And then it can be something negative. Then I would want to join to prevent it from happening or something positive, and I would want to be in to shape it. But you need to somehow make people

feel that their time investment actually is worth it and that they're not just in another committee because we're all in too many committees already (interview 10, assistant professor).

In general, participants who did not intend to engage in CSB indicated to have a high degree of cynicism towards the change and change fatigue. This was usually caused by previous negative experiences or the belief that 'Shaping 2030' would not change much anyway due to a lack of authority in the implementation process or because the strategy was perceived to be something far away from the workforce, which is up to the management.

### **Discussion**

This study aimed to get a better understanding of the factors that affect the CSB of academic staff in the context of strategic change in HEIs. The exploratory nature of the present study allowed participants to provide detailed insights on this topic and their motivations. In the following, the main findings of the interviews will be presented, and theoretical and practical implications of the present study will be given. Additionally, the limitations of the study will be discussed, and recommendations for future research will be provided.

### **Main Findings**

The interviews confirm the importance of previously known content factors, process factors, context factors, and individual factors for the creation of CSB in an HEI context.

Additionally, new determinants were derived from inductive content analysis, such as the perceived necessity of the change, the degree to which the change aligns with employee's work, and the extent to which employees perceive to be able to fulfill the situational demands of the change process. In general, participants had mixed attitudes towards the change and frequently criticized factors that were found to be crucial for the creation of CSB. Especially factors such as the communication related to 'Shaping 2030' and the implementation measures were frequently criticized. Only very few participants had already engaged in CSB,

which supports the notion that the factors suggested by the present study should receive more attention from the people responsible for the change process at the University of Twente. The presentation of the three different types of employees shows that only very few participants per se reject the new strategy and that the majority of participants might be convinced to facilitate the change process. However, this requires a managed process that pays attention to the presented factors of CSB. However, if employees are not left alone in the process, insecurity, ambiguity, and cynicism can emerge, which in turn might increase the number of employees who reject the change.

### **Theoretical Implications**

The results of the present study entail several implications for the research on CSB. While the importance of certain factors in the specific context of this study could be confirmed, the results also offer the opportunity to view certain factors from new angles. This study supports the importance of positive and negative perceived outcomes of the change of the creation of CSB in the context of HEIs. Even though Ahmad and Cheng (2018) were able to prove the relationship between perceived outcomes and CSB in the context of public organizations, the present study is the first to confirm this relationship in a qualitative context in HEIs.

Furthermore, the results show that individual factors such as change cynicism, change fatigue, and public service motivation are also applicable as determinants of CSB in an HEI context.

The results also revealed certain tensions between existing research on CSB and the circumstances of the present study. While previous research argues that offering employees the opportunity to participate in the change process will increase their CSB (Rafferty & Restubog, 2010; Van der Voet et al., 2016), this study shows that the concept of participation is more complex than suggested by existing studies. The results show that just offering employees the possibility will not automatically lead to their participation, but that

participation depends on certain factors. In the present study, these factors were related to whether employees thought that their time investment would actually be worth it and the format of participation.

Contrary to the existing literature on CSB, who see the role of communication in the strategy process limited to providing employees with information (Rafferty & Restubog, 2010; Russ, 2008), the present study suggests that a much richer definition of communication can advance the field of CSB in the context of strategy changes. Therefore, this study builds upon Luhmanns's approach that communication is not only something that happens within an organization but that communication constitutes organizations (Schoeneborn, 2011). This makes a strategy a communicative achievement (Jarzabkowski & Spee, 2009). As soon as new strategies are communicated through strategic documents or managerial presentations, employees start to translate and interpret them (Aggerholm et al., 2012). This interpretation is affected by the personal context and individual characteristics of each employee. This so-called recontextualization of the strategy can lead to multivocal interpretations among employees because of their different individual contexts and characteristics (Aggerholm et al., 2012). During the interviews, it turned out that this process of recontextualization played a huge role in employees' sensemaking of the perceived outcomes of the strategy. Different participants interpreted the content of the strategy in different ways. Especially participants with a background in fundamental research interpreted the strategy as potentially dangerous, even though they mentioned being unsure about the original meaning the of the strategies' author(s). Therefore, the present study proposes that the concept of recontextualization and sensemaking should be considered in a CSB context because they affect the perceived outcomes of change initiatives and thus the CSB of employees. This conceptualization of communication goes beyond the traditional views of CSB literature on communication.

Furthermore, existing studies in the area of CSB oftentimes left out the individual factors from the theoretical models (e.g., Ahmad & Cheng, 2018; Straatmann et al., 2016). While this is usually done on purpose as individual characteristics of employees are usually not changeable, the present study supports the notion of Hassan et al. (2020) the individual factors are nevertheless of value in the change process and should be included in an overview of factors of CSB. This is because the present study indicates that even though participants might have a cynical attitude towards a change, they can still be convinced to abandon that attitude.

The results of the present study also advance the field of CSB research because new determinants of CSB could be identified. This study proposes that the degree to which the new strategy aligns with the work of employees leads to behaviors that facilitate a successful implementation. This also draws the bow to the concept of strategy as practice (SAP). The SAP perspective argues that strategy is “a situated, socially accomplished activity” (Jarzabkowski et al., 2007, p. 7). Speaking differently, this means that strategy is something that people do instead of something that is decided upon. ‘Doing’ in that case refers to the actions, interactions, and negotiations employees engage in their daily work (Jarzabkowski, 2005). Coming back to CSB, this could mean that employees whose ‘doing’ is already in line with the new strategy are more likely to engage in CSB. While this might not come as a surprise, it indicates a relationship between the concepts of SAP and CSB. This could also lead to the assumption that a new strategy might lead to tension because it aligns with the daily practice of some employees, while it contradicts or seems to contradict to a certain extent with the daily work of other employees, which all are part of the same organization. Additionally, this study proposes that change-related self-efficacy and change fatigue play an important role in the building of CSB and should receive more attention in the CSB context.

Previous research only mentioned positive or negative perceived outcomes as factors that affect employees' CSB. However, during the interviews, participants who expressed reservation towards the change frequently mentioned that they did not think the change would have any outcomes at all. Therefore, it can be assumed that not only negative expected outcomes but also no expected outcomes decrease employees' CSB.

When it comes to the content of the change, the present study suggests that not only the perceived outcomes affect the CSB of employees, but also the degree to which the employees perceive it to be necessary. This refers to change urgency, which is an established concept in the change management literature. However, the studies on CSB that were reviewed for the present study lacked this component. Moreover, the results of this study indicate that when it comes to the change process, employees' attitudes and opinions regarding the measures for implementing the change affect employees' CSB.

### **Practical Implications**

Due to the fact that the present study is one of the first that researched the concept of CSB in the context of HEIs, this study proposes several practical implications for the University of Twente as well as for HEIs in general that are coping with strategy changes. First, the present study shows that content factors, process factors, context factors, and individual factors play a crucial role in the creation of CSB and must be taken into consideration by practitioners in HEIs.

During the interviews, it turned out that many participants were not sure how the content should be interpreted because the strategy documents were formulated in an open way and left room for interpretations. This led to different recontextualizations depending on the individual context of employees. Especially, participants who mainly did fundamental research interpreted the content of 'Shaping 2030' as potentially dangerous. It seems that such a strategy that leaves much room for interpretations can lead to favorable as well

unfavorable recontextualizations depending on the individual contexts of employees. As this recontextualization might be contrary to the initial meaning of the author(s), this strikes the enormous importance of high-quality change communication. Communicative measures should be used to minimize the discrepancy between the employees' interpretations of the strategies' content and the original meaning the strategies' authors had in mind. This is supported by Aggerholm et al. (2012), who argue that, especially in the translation phase, adequate communication is crucial to facilitate this constantly ongoing process of recontextualization and sensemaking. However, adequate communication so far seems to be lacking in the case of the University of Twente, since the interviews showed that many employees struggle to make sense of the new strategy, interpret it in different ways than intended, or even have never heard of it. This is also related to the previously discussed relationship between CSB and SAP. Especially the potential tension between employees whose work aligns with the new strategy and employees who perceive the new strategy to (partly) contradict their work could be minimized through adequate communicative measures that ensure a successful recontextualization of the contents of the new strategy. The present study proposes that these communicative measures focus less on traditional top-down communication, as many employees indicated that they would usually not take the time to read newsletters and actively seek information's about the new strategy themselves. Instead, the focus should lay more on participatory formats.

While this study shows that that participation is a crucial determinant of CSB, the concept is more complex than suggested by previous research in the CSB context. While most participants were aware that the university offered them the opportunity for participation, many declined to participate or participated only once in certain meetings or workshops and then stopped participating. Based on the insights from the interviews, this study proposes that in order to increase employees' participation following things should be



considered by the responsible people. First, meetings and participatory formats, in general, should have clear outcomes that convince employees that their time investment is worth it. Second, these formats should preferably be organized on a faculty or department level. This is because most employees indicated to have a much stronger relationship with their faculty or department than with the university as a whole organization. Employees usually indicated that they would like to join discussions that have the objective of discussing how the faculties and departments could align with the overall strategy. Noteworthy, this was also the case for participants who perceived the strategy to be dangerous. Therefore, this study proposes that meetings, roundtables, discussions should be organized on a faculty or department level. Moreover, Healey et al. (2015) suggest that strategy workshops can be used to stimulate strategic change. These workshops could also take place on a faculty or department level and, as MacIntosh et al. (2015) suggest, should also target the management and employees with personnel responsibility. This is because they usually set the infrastructure that is required for employees to engage in the change.

As the present study, contrary to former studies, included employees' individual factors, it could be shown that change fatigue and especially change cynicism are widely spread among employees. According to the participants, these were usually caused by former experiences with previous initiatives, interactions with their supervisors, or decisions that were made by the upper management. However, the interviews showed that participants who originally had a cynical attitude towards 'Shaping 2030' oftentimes overcame this attitude as soon as they got involved in initiatives related to 'Shaping 2030'. These participants usually were asked by valued colleagues who were already involved in activities related to 'Shaping 2030' for support. Therefore, the present study recommends that employees with a reputable standing within the different faculties should be targeted as change ambassadors to increase the CSB of employees. Noteworthy, this could not only be used to overcome cynical attitudes

but also increase the CSB of employees who generally perceived the new strategy as beneficial but did not actively engage yet.

### **Limitations and Future Research**

Some limitations of the present study should be considered. First, the data presented in this study was gathered at only one University, namely the University of Twente. This, of course, limits the generalizability as it cannot be predicted whether these results would be the same in other HEIs. Second, all participants of the present study were academic staff who had been working at the University of Twente for at least five years. While there were good reasons for this decision, it is up to further research to investigate determinants of CSB from a perspective of, for example, supporting staff or staff with less working experience at the organization.

This study investigated the determinants of CSB in the case of the implementation of a new strategy. As this is a very specific type of change, future research needs to show to what extent the results of the present study are also applicable to other types of changes. The goal of the present study was to investigate determinants of change supportive behavior. However, due to the nature of this study, participants could only indicate their intention to support the change. Whether this intention will truly result in behavior cannot be guaranteed, even though previous research has shown a strong relationship between change supportive intentions and CSB (Ahmad et al., 2020). It should be noted that in total, 120 employees had to be approached to reach the desired 30 participants for this study. Many employees declined the interview invitation due to time issues, high workload, or lack of interest in the topic. This unintentionally might have led to a sample consisting of employees with a relatively high interest in the topic and a rather positive attitude towards the new strategy. However, since the results present a quite balanced perspective with negative and positive opinions, this should not have had negative consequences on the representativeness of results. A final

limitation is that two out of the thirty employees stated that they would retire soon and therefore perceived the change to not affect them. For future research, it is recommended that employees who are close to retiring should not be included in such research.

The present study recommends future in other contexts of HEIs to ensure the generalizability of the presented results and implications. Moreover, future research is needed from the perspectives of non-academic staff as well as from employees who have less experience in the organization than the participants of the present study. Since this study showed that previous negative experiences at an organization could lead to change cynicism, it might be worthwhile to research the attitudes towards a change of employees who lately joined an organization. The implementation of new strategies seems to be a special case of change, which cannot necessarily be compared to other types of changes within organizations. Therefore, the present study points out the need for future research to further investigate how changes in strategy differ from other types of changes. Especially the relationship between the concept of strategizing as introduced in the SAP perspective and CSB seems to be worth future research. Moreover, the relationship between CSB and the concepts of recontextualization and sensemaking requires further investigation.

## **Conclusion**

In summary, the present study extends previous research on the topic of CSB in HEIs by presents new factors, new insights on already existing factors, and connecting the concept of CSB with other concepts such as SAP. It is argued that content factors, context factors, process factors, and individual factors play a crucial role in the creation of CSB in HEIs. Moreover, this study provides several theoretical and practical implications that can be of value for scholars on the topics of CSB and strategizing and practitioners in HEIs. However, since this study was conducted in a specific setting, future research is needed to determine whether the results of the present study apply to other settings as well.

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## Appendices

### Appendix A

#### Infographic

# TECHNOLOGY? IT'S A PEOPLE STORY.



#### MISSION

THE UNIVERSITY OF TWENTE IS THE ULTIMATE **PEOPLE-FIRST** UNIVERSITY OF TECHNOLOGY.  
WE **EMPOWER SOCIETY** THROUGH **SUSTAINABLE SOLUTIONS**.

#### VISION

WE CONTRIBUTE TO THE DEVELOPMENT OF A  
**FAIR, SUSTAINABLE AND DIGITAL SOCIETY** BETWEEN NOW AND 2030

##### ENTREPRENEURIAL COURAGE OVER COMFORT

Inspiring a new generation  
by pushing our renowned  
entrepreneurial attitude to new  
levels to inspire and guide our  
technological society.

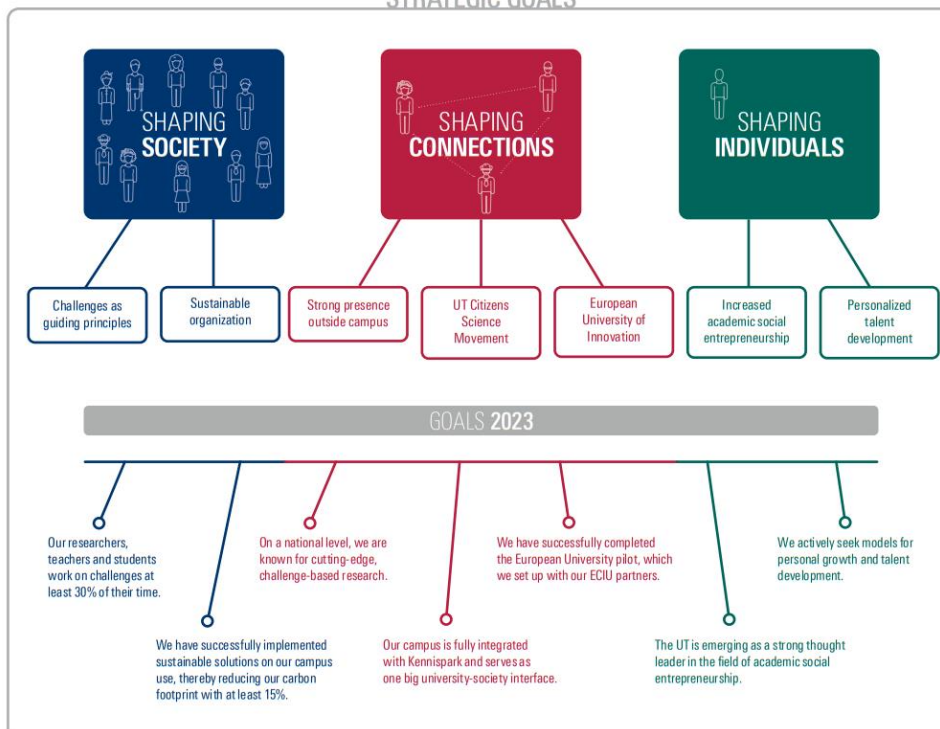
##### INCLUSIVE STUDENT OVER SYSTEM

Everyone in our community is  
learning, and is therefore a student.  
This thriving, talented community  
of unique individuals is our most  
crucial asset in serving society.

##### OPEN COMMUNITY OVER CAMPUS

Collaboration is essential and  
we will be trusted partners in  
our connections. The campus  
remains our hub, but we reach  
out far beyond it.

#### STRATEGIC GOALS





## Appendix B

### Interview Scheme

Researcher: *Before we start the interview, I would like to thank you for participating. This interview will be used for my Master's Thesis I am writing at the University of Twente. In my master thesis, I want to investigate why or why not employees engage in and support new strategies that are introduced by an organization. Since the University recently came up with the Shaping 2030 strategy, I decided to interview employees to get their insights on this topic.*

*I am writing my master thesis for the strategy and policy department of the university. However, everything you will be saying will remain confidential. No personal data that could be traced back to you will be published or shared with the strategy department or anybody else. You have the right to do not answer any question you do not want to answer without any justification. Also, you have the right to withdraw your participation and your data at any point in this study. Finally, I would like to emphasize that you have the opportunity at any time to stop this interview, and you can always ask for clarification if you do not understand a question.*

*To be able to use the data for my master thesis, I need to record this interview and transcribe it afterward. As is mentioned, all personal data will be deleted from the transcribed, and the audio files will be deleted after they have been transcribed.*

*The aim of this research is to collect people's opinions on Shaping 2030. This will help the Strategy and Policy Department to adjust the strategy based on the insights people give. Therefore, I am going to ask several open-ended questions regarding the Shaping 2030 strategy. There are no right or wrong answers to the questions. It is about your experiences and perceptions. The focus will mainly be on the Shaping 2030 strategy. However, you are free to reflect on previous change initiatives you experienced as well.*

*Do you agree with these terms?*

If the respondent agrees, the interview starts

#### Topic 1:

- What is your first impression of this strategy?
- To what extent do you see your opinion reflected in the Shaping 2030 strategy?  
➔ E.g., "becoming the ultimate people-first university of technology"
- What do you think is needed to reach these goals that the strategy suggests?  
➔ E.g., What is needed to become "the ultimate people-first university"?  
➔ E.g., Becoming more inclusive?  
➔ E.g., collaborate better with other faculties/universities/organizations?
- How do you think you could contribute to the goals of Shaping 2030?
- Can you think of ways that the new strategy will impact your work or the UT as a whole?  
➔ To what extent do you perceive the new strategy as threatening?
- To what extent do you think the UT needs a strategy like Shaping 2030?

- Would you participate in meetings or initiatives that are related to the goals of shaping 2030?  
➔ Why or Why not?

Topic 2:

- How would you describe the relationship between you and the UT as your employer?  
➔ What do you appreciate about the UT as your employer?  
➔ Why do you work specifically at the UT?  
➔ To what extent do you feel connected to the UT?
- To what extent do you think your goals and the objectives of the UT are in line?
- What are the topics that you are passionate about in your daily work?  
➔ How do you think that might be related to the goals of Shaping 2030?
- How do you see your role as a researcher within society?
- How do you see the role of the UT in society?
- To what extent do you think that Shaping 2030 will influence the role of the UT within society?

Topic 3:

- What were your previous experiences with initiatives like Shaping 2030?
- What was your first thought when you heard about the new Shaping 2030 strategy?
- What do you associate with new strategies at the UT?
- To what extent was the information that I provided you new?
- To what extent did you talk with your colleagues about Shaping 2030?
- To what extent do you think the responsible people do a good job in preparing the UT for the future?

Topic 4:

- What should the responsible people do to make this reality?
- If you were from the Strategy & Policy department, is there anything you would do differently?
- Is there anything you would like to add in regard to this strategy or its implementation?
- Can you introduce yourself shortly?  
➔ How old are you?  
➔ How long are you employed at the UT?  
➔ What's your position?

## Appendix C

### Codebook

#### 1. Content Factors

Number	Code	Description	Example
1.1	Perceived outcomes +	The degree to which the change is supported because it is expected to have positive outcomes	This brings new opportunities for getting new funds, and it will also make it easier to have more collaborations.
1.1	Perceived outcomes -	The degree to which the change is not supported because it is expected to have negative outcomes	I think this change is very dangerous for me
1.1	Perceived outcomes?	The degree to which the change is not supported, the outcomes are unclear	This be both, good and bad, it really depends on the implementation
1.1	Perceived outcomes 0	The degree to which the change is not supported because it is expected to have no impact anyways	I do not feel like this will bring any benefit. There are better things I can spend my time on
1.2	Perceived Necessity +	The degree to which the change is supported because it is perceived as necessary	I engage in this because I think the university should react to these societal developments of these days
1.2	Perceived Necessity -	The degree to which the change is not supported because it is perceived as unnecessary	I do not think this is necessary. I can do my job totally fine without something like this

#### 2. Process Factors

Number	Code	Description	Example
2.1	Work alignment -	The degree to which participants do not support the change because it is not in line with their work anyways.	I consider myself a hard science scientist because I work with mechanics and materials and so on. Therefore, this shaping society thing is a little bit far away from me.
2.1	Work alignment +	The degree to which participants support the change because it is in line with their work anyways.	In my department, some of them are already guiding principles in our work anyway.

<i>2. Process Factors (continued)</i>			
2.2	Communication +	The degree to which employees feel that they have all information necessary to support the change	I heard of the Shaping Expert Groups and thought it would be a good idea to contribute there
2.2	Communication -	The degree to which employees do not feel that they have all information necessary to support the change	I have never heard of shaping 2030 before
2.3	Implementation Measures -	The degree to which employees do not support the change because they do not think that the measures for implementation are adequate or will be successful	I think these are nice words, but I have my doubts whether you can actually implement this via such a strategy
2.3	Implementation Measures +	The degree to which employees support the change because of certain measures for implementation	If this should be carried by the people, this must be brought to the faculties and departments.
2.4	Participation -	The degree to which employees do not support the change because they do not feel that they can participate in the change process.	I think the approach was used, at least at the beginning, was really keeping people really distant, and also the initial round tables were very vague and abstract. I heard several times that people who have participated in one didn't go anymore because they didn't see the point of that.
2.4	Participation +	The degree to which employees support the change because they feel that they can participate in the change process.	The process of Shaping 2030 was very good. It involved a lot of people working at the University from different faculties, so very bottom up. That was very nice

*3. Context Factors*

Number	Code	Description	Example
3.1	University Identification +	The degree to which employees feel connected to the organization and its values thus support the change	I support this because I think it will help the University
3.1	University Identification -	The degree to which employees feel distrust towards the organization because of certain actions that were taken and thus do not support the change	I do not trust the university in this because they took actions that contradict this change
3.1.1	Perceived Organizational Support +	The degree to which employees feel supported by the organization and therefore support the change	I feel very much supported by the university and think that I owe the university my support
3.1.1	Perceived Organizational Support -	The degree to which employees do not feel supported by the organization and therefore do not support the change	I do not feel supported by the university, and therefore I do not think I owe the university my support
3.2	Trust in management +	The degree to which an employee supports the change because he/she trusts the management	I believe the management acts in my interest with initiating this change
3.2	Trust in management -	The degree to which an employee does not support the change because he/she does not trust the management	This is just management talk. This will not change anything

*4. Individual Factors*

Number	Code	Description	Example
4.1	Change cynicism +	The degree to which employees support the change because of previous positive change experiences	I think the last strategy already had quite an impact, so I think this one will have positive effects as well
4.1	Change cynicism -	The degree to which employees do not support the change because of previous negative change experiences	I did not see an effect of the previous strategy, so I do not think that this one will change anything
		The degree to which employees do not support the change because that it will be actually implemented	

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<i>4. Individual Factors (continued)</i>			
4.2	Change-related self-efficacy -	The degree to which employees do not support the change because they do not think they are able to fulfill the situational demands.	Even if I would like to participate, I am sometimes so busy that it is just not possible. So there needs to be time to do these things and this time can only be spent once.
4.3	Public service motivation	The degree to which employees support the change because of individual altruistic values	I feel like I have a responsibility towards society, and this change will help to fulfill this responsibility
4.4	Change fatigue	The degree to which employees do not support the change because too much change is happening	I have seen so many changes and strategies. I am sick of it.

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