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Behaving entrepreneurially in a digital transformation

Thesis 1: A focus group study on entrepreneurial qualities and professional identity of employees in a digital transformation.
Thesis 2: A Delphi study on what top management can do to facilitate employees in a digital transformation.

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Acknowledgments

Abstract

ORIGINALITY & VALUE: The digital transformation of organizations involves the transformation of the main business operations, through which not only products and processes are affected, but management and organizational structures as well. In this context, management practices need to be established to govern the complex digital transformation. However, the influences of digital transformation on the workplace have been considered to a limited extent. The qualities and professional identity of employees may have a big influence on the success of the digital transformation, whereby entrepreneurial behavior fits several characteristics of digital transformation. Therefore, entrepreneurial qualities might contribute to this context.

CASE: The research is conducted at an organization of which 27 clients are involved in a digital transition towards a new central business-oriented system, based on Common Ground and Open Source. With the knowledge of these theses, the clients know the value and what they can do to facilitate the development of entrepreneurial qualities and -professional identity.

THESIS 1: The research aims to examine what the contributing entrepreneurial qualities to a digital transformation are and their relation to entrepreneurial professional identity. Data is collected in focus groups to engage in a discussion with employees who are coping with a transformation. This resulted in the ascertained entrepreneurial professional identity with complying entrepreneurial qualities and an identity formation process. The relevance of entrepreneurial qualities in a digital transformation is hereby proven.

THESIS 2: The research aims to examine what management can do to help its employees to develop these entrepreneurial qualities/-professional identity. Data is collected through a Delphi study among employees in a managing position who are coping with the transformation, which resulted in guidelines for management to foster the development of entrepreneurial qualities.

STRUCTURE: In approval of the exam commission and study regulations, Thesis 1 is written for the Master Business Administration and Thesis 2 for the Master Communication Science. Both studies are conducted in the Faculty of Behavioral Management and Sciences.

Key words: Digital transformation, entrepreneurial qualities, (entrepreneurial) professional identity, managing entrepreneurial action, entrepreneurial leadership.

Glossary of key terms

Term	Definition
Digital transformation	A change process involving the use and adoption of digital technologies, which need to be evolved into an implicit holistic transformation of an organization or deliberate to pursue value creation.
Entrepreneurship	The process of uncovering and developing an opportunity to create value through innovation and seizing that opportunity without regard to either resources or the location of the entrepreneur – in a new or existing company.
Entrepreneurial characteristics	The mindset, qualities, skills related to entrepreneurial behavior.
Value creation	The co-creation of value among customers and employees through interaction, experience, and empowerment.
Identity	The conception of the self-reflexively and discursively understood by the self.
Professional identity	The professional self-concept based on beliefs, values, attributes, experiences, and motives.
Intrapreneurship	An emergent behavior or behavioral intentions that are different from the customary ways of working in existing organizations.

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Introduction

The digital transformation of organizations is a topic of emergence, related to smart industry and business redesign. Digital technologies are deeply rooted in an organization's practices and culture, which not only affects the business model, but the organizational structure and workplace as well (Henriette, Feki, & Boughzala, 2016). Therefore, according to Henriette et al. (2016), digital transformation can be defined as "a disruptive or incremental change process. It starts with the adoption and use of digital technologies, then evolving into an implicit holistic transformation of an organization or deliberate to pursue value creation" (p. 3).

Compared to previous ways of working, the digital transformation aims to a decentralized, connected, and intelligent manner of production, known as 'Industry 4.0' (Hermann, Pentek, & Otto, 2016; Machado, Winroth, & Ribeiro da Silva, 2019). In that way, it is ought to contribute to company differentiation and greater competitiveness and to boost company innovation and performance (Ferreira, Fernandes, & Ferreira, 2019). According to Porter & Heppelman (2015), it considered a radical shift exists of smart, connected products through which organizations are forced to redefine and rethink their whole industry and organizational structure. They state this results in new processes with more intense coordination among functions, new emerging functions, and new forms of cross-functional collaboration.

The evolution of technologies in the digital transformation of organizations engenders new labor needs and, as such, creates new job opportunities (Henriette et al., 2016). The way of working has to be adapted, for which a digital ecosystem needs to be created. For example, digital transformation involves for companies to work together with employees for the generation of value creation innovations (Müller, Buliga, & Voigt, 2018). To meet these new labor needs, the change of skills of employees is seen as a sustainability requirement for Industry 4.0 (Gabriel & Pessl, as cited in Machado et al., 2019).

Despite that the digital transformation greatly affects employees in organizations, this seems not yet being fully appreciated and well understood in research (Brynjolfsson & McAfee, 2011), making it difficult to establish management practices fit in the context. Much research in the considered field is focused on the development of a digital strategy and guidelines on how to organize and handle data (e.g., Machado et al., 2019; Porter & Heppelman, 2015). Nevertheless, due to the conversion of the main business operations in a digital transformation, not only production processes are affected, but management concepts and organizational structures as well (Matt, Hess, & Benlian, 2015), stressing its importance. Subsequently, management practices need to be established to well govern the complex digital transformation. However, as the effects of the digital transformation on the workplace have been considered to a limited

extent to fully understand the organizational structures, it is a challenge to establish such management practices.

Entrepreneurship in professional behavior may contribute to this context, as many entrepreneurial characteristics are aligned with values of digital transformation. Entrepreneurship is defined as "the process of uncovering and developing an opportunity to create value through innovation and seizing that opportunity without regard to either resources or the location of the entrepreneur – in a new or existing company" (Churchill, 1992, p. 586). The process of value creation through innovation is an important aspect of digital transformation, as well as seen as a key process for entrepreneurs. Furthermore, as new digital technologies bring insecurity due to the continuously changing digital environment, entrepreneurial values such as being open to new technologies (Schumacher, Erol, & Sihn, 2016) and the ability and flexibility to adapt to new situations and uncertainties may be of value.

This research will take the influences of employees on the digital transformation into account, to establish ground for the importance and value of the employees' qualities and mindset in this matter. It will be investigated whether and what kind of entrepreneurial behavior of employees contribute to a digital transformation. The changing qualities subsequently impact their professional identity to which they must comply, which also will be investigated. When referring to employees, this indicates employees that are employed, rather than self-employed. Here, the context of digital transformation is the transition towards a new central business system. In this context, the following main research question for Thesis 1, the employee perspective, is constituted:

Thesis 1: What are contributing entrepreneurial qualities of employees to the success of a digital transformation and how does this relate to entrepreneurial professional identity?

Given the outcome of Thesis 1, it is investigated how management can use the findings to better guide a digital transformation. Management practices are developed to guide employees during the transformation and foster the development of entrepreneurial qualities. This constitutes the following main research question for Thesis 2, the management perspective:

Thesis 2: How can top management help its employees develop entrepreneurial qualities and -professional identity that contribute to a digital transformation?

This research will be conducted at clients of an organization that focuses on the implementation and innovation of business systems. Each of the clients is involved in a digital transformation of a central business system.

Eventually, the outcome of both theses contributes to an understanding of what qualities and professional identity of employees are valuable in a digital transformation. Subsequently, organizations can utilize this to improve the digital transformation process and be able to foster employees' development well in this process. Recommendations are developed for management to be able to guide employees to develop the fitting qualities and professional identity.

THESIS 1

1. Theoretical framework

As mentioned in the introduction, management and work processes change due to an organization's digital transformation. New organizational capabilities, skills, and competencies are needed from employees for the digital transformation to be successful, leading to a possible change in mindset and qualities integrated into one's professional identity. This leads to organizations having to train employees for the changed working methods (Müller et al., 2018). However, it can be questioned what needs to be aimed for during such training.

In this theoretical framework, entrepreneurial qualities related to digital transformation and identity theory will be discussed. First, it will be discussed how entrepreneurial characteristics may be relevant in the context of digital transformation at all.

1.1 Relevance of entrepreneurial qualities in a digital transformation

As described, the evolution of technologies in digital transformation engenders new labor needs as well as new ways of working (Henriette et al., 2016). The transformation results in a culture in which employees have to collaborate in different ways and need to develop the competencies to handle the new technologies. A need exists for skilled workers to operate and to program the complex equipment, and to make quick decisions as a response to changes in designs, product lines, and input from a wide range of involved partners. It demands a way of strategic thinking from employees, involving collaboration and competition, to advance the organization's capabilities and resources (Zahra & Nambisan, 2012). According to Mintzberg (1994, as cited by Kuratko & Audretsch, 2009), "strategic thinking synthesizes the intuition and creativity of an entrepreneur into a vision for the future" (p. 2).

Besides strategic thinking, more alignments can be found with entrepreneurial characteristics, such as being independent, determined, visionary, resilient, ambitious, and risk-taking (Burn, 2007, as cited by Tran & Batas, 2016). For instance, being independent, risk-taking, and determined relate to the ability to make quick decisions by oneself. Additionally, in research about entrepreneurship, scholars agree that entrepreneurial behavior involves initiative-taking, the ability to (re-)organize social-economic mechanisms to turn situations and resources into practical account, and the acceptance of the risk to fail (e.g., Kuratko & Audretsch, 2009).

Certain scholars even consider entrepreneurship and innovation as a 'new engineering education requirement' (Ustundag & Cevikcan, 2017) and an entrepreneurial mindset as a core element of strategic management (McGrath & MacMillan, 2000). It is believed that an employee should be entrepreneurial to be able to take different roles, being a client and a server simultaneously, by requesting help as well as offering a service (Boley & Chang, 2007).

The emergence of digital technologies implies new assumptions for entrepreneurial initiatives, being less bounded and more fluent in entrepreneurial processes and outcomes, and a more distributed and less predefined entrepreneurial agency (Nambisan, 2017). These findings prove the flexibility that digitalization demands of employees and the need for entrepreneurial behavior to adapt to these agile changing situations and roles. Boley and Chang (2007) describe a digital ecosystem to be decentralized in a control structure, involving an open community and no single-role behavior. In such a decentralized structure, employees are more autonomous and need to be open to new technologies (Schumacher, Erol, & Sihn, 2016), as related to the topic of being entrepreneurial.

1.2 Entrepreneurial behavior in established organizations

Nonetheless, a risk may be that employees in an organization may be hindered in developing entrepreneurial behavior, as entrepreneurship is also described to involve "developing a new venture outside an existing organization" (Parker, 2009, p. 19). Therefore, management might find the risk of employees leaving the organization to start their venture. However, entrepreneurial behavior does not necessarily imply for employees to distinguish themselves from the organization and is much broader than that. For that reason, the focus in this research lies on "the spirit of entrepreneurship within the employees working in an established organization" (Rekha, Ramesh, & Jayabharathi, 2015, p. 53), instead of employees distinguishing themselves from the organization.

The focus on the incorporation of entrepreneurial characteristics at organizational levels has contributed to a further understanding of the role of entrepreneurship regarding the performance and revitalization of existing organizations (Antoncic & Hisrich, 2003). Many scholars have suggested that it can serve as a method of using the creative energy of employees by providing resources and independence to innovate, as a way to stimulate innovation in the organization (Carrier, 1996).

Such entrepreneurial qualities, like innovation and creativity, are ought to be cultivated in established organizations (Rule & Irwin, 1988). Rekha et al. (2015) state that the entrepreneurial

mindset compromises a set of four qualities, being learning from mistakes and successes, being optimistic and motivated, the ability to take risks, and the continuous search for innovative ideas. Corresponding and additional qualities to consider, as described by Felício, Rodrigues, & Caldeirinha (2012), are supported on factors of risk and uncertainty, risk and challenges, innovation, competitive energy, autonomy, growth, productivity, improvement, and proactivity.

The ability to take risks is, thus, an important theme in entrepreneurial behavior. Due to a lower perception of risk, it is believed entrepreneurs are more able to apprehend opportunities (Baron & Ensley, 2006; Simon et al., 2000). Through assertive risk-taking and innovation, an entrepreneur has direct responsibility for transforming an idea into profitable services or products. Exploration, creation, and discovery of opportunities for services and goods in an organized way can lead to entrepreneurial action (Bruyat & Julien, 2001). It can lead to value creation, and, accordingly, to the enhancement of performance and revitalization of the organization (Felício et al., 2012).

1.3 Professional identity

Besides the risk that employees in an organization may be hindered in developing entrepreneurial behavior, a conflict with one's professional identity when incorporating entrepreneurial behavior may occur. Therefore, professional identity and identity theory may be relevant to consider in the context of incorporating entrepreneurial qualities that may contribute to a digital transformation.

Professional identity is defined as the professional self-concept based on beliefs, values, attributes, experiences, and motives (Ibarra, 1999; Schein, 1978, both cited in Slay & Smith, 2010). As described by Slay & Smith (2010), research on the topic of professional identity suggests that self-views are constructed in three primary ways. First, professional identity results based on the socialization process and rhetoric in which one obtains information about meanings related to a profession. Second, scholars state that individuals adapt and adjust their professional identity during courses of career transition. Third, it is suggested that work, as well as life experiences, influence professional identity, by clarifying self-understanding and priorities.

1.4 Identity theory

Identity theory is a theory grounded in literature considering identities and identity development. The theory indicates that self-concepts are social constructions (Murnieks, Cardon & Haynie, 2020), dependent on the context for which an individual relinquishes from

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one's identity. If a group, for instance in an organization, is subject to change, this has consequences for the identity of oneself. One's confusion about identity may lead to uncertainty of what actions to take (Duening & Metzger, 2017). Therefore, it can be considered valuable for management to guide their employees in this process.

Duening & Metzger (2017) describe a distinction in the theory between identification and internalization. Social categories may be a way to identify oneself, without necessarily internalizing a category's virtues. Identification refers to the question "Who are you?", whereas internalization of certain virtues to act upon refers to the question "What should I do?". The scholars believe, to incorporate for instance entrepreneurial behavior, one must internalize what it means to *be* one.

Identity construction is seen as a discursive and iterative process compromising a wide range of variables (Alvesson et al., 2008). The mental and communicative processes through which one attempts to create an identity are referred to as "identity work". In identity work, the self of the individual evolves and changes. These changes refer to attitudes, beliefs, propensity, and willingness to act. However, in periods of transition and doubt about the self, identity work is found to be increasingly intense (Ibarra, 1999). This intensity is mostly associated if one is in the process of becoming, instead of being (Ybema et al., 2009). Also, according to Sveningsson & Alvesson (2003), this intensity of the process of becoming is especially high in the aspiring professional. For that reason, in the changing environment of digital transformation for which new requirements in the work field apply, it can be considered valuable to further understand this process and how management can support it.

2. Method

The goal of Thesis 1 was to investigate what entrepreneurial qualities would contribute to the success of a digital transformation. The change to different qualities has an impact on identity, which, therefore, also has been investigated.

2.1 Research design

In this research, the method of focus groups has been applied to examine whether entrepreneurial behavior and mindset contribute to the success of a digital transformation. The researcher took part as a moderator posing the questions (based on a question 'schedule') and guiding the discussion (Cameron, 2005; Wilkinson, 2004). Rather than asking questions to each participant, the researcher aimed at facilitating a discussion and encouraging participants to interact. What was said by participants during the discussion was the essential data in the method (Morgan & Krueger, 1998), at which participants responded to viewpoints and ideas of others and explored and gained new ways of thinking about a topic (Cameron, 2005). One comment could trigger other responses, creating a 'synergistic' effect, which generated more information (Cameron, 2005). Using a theory-building approach, the opportunity to establish connections among opinions of participants and to develop a common understanding of a topic was applied.

Five focus groups were organized, each lasting 2 hours. This complies with the rule of thumb to organize three to five focus groups (Cameron, 2005). The focus group type of 'telephone groups' was applied as due to Covid-19 it was not possible to meet with the number of participants physically. Telephone groups are usually conducted by a telephone conference call, lasting from 30 minutes to 2 hours (Greenbaum, 1998). In this thesis, video recording was enabled during the focus groups.

The method being performed digitally could have restrained people from sharing thoughts similarly to how they would in real life. To enable full participation, the tool 'Miro.com' was used to facilitate individual thinking and providing each participant the opportunity to contribute. On Miro.com, participants could fill in their thoughts and contributions. This prevented one from being too reserved or influenced by others' opinions.

The data collection was future-oriented. During the focus groups, an envisioned future was discussed, for which participants were not sure what it exactly would look like. As such, awareness was achieved for employees to start actively thinking about what could come and be able to pre-adapt to the coming change.

2.2 Organization: Dimpact

The organization involved in the research was Dimpact. Dimpact is a corporation that brings municipalities together, to improve and realize innovation in public services, use economies of scale to acquire products at competitive prices, and enable re-use. They focus on joint further development, value-creating relationships, and sharing knowledge with and between their clients. They provide support for the implementation of systems and foster innovation. The corporation is characterized as a management organization, that on the one hand organizes demand (by focusing on the internal organization and customer) and on the other hand organizes the supply (by focusing on the markets). They recognized that the municipal task in the field of technology is hardly feasible for a municipality on its own and created the opportunity to realize this jointly.

In 2023, a transition towards a new system will take place for 27 of Dimpact's clients. This is a transition towards a new central business-oriented system with functionalities such as work stock management and archiving, based on Common Ground and Open Source. It is expected to increase and enhance digitalization. Therefore, Dimpact offered as a good case for this research.

2.3 Participants

The participants of the focus groups were employees who are working at a municipality coping with the transition (Table 1). As such, participants were from similar backgrounds (Morgan & Krueger, 1998). The number of clients coping with the transition is thus 27, of which a selection was made based on the municipalities' size. The involved participants were employees who knew about the background of the transition and eventually had to work with the new system. These selection criteria altogether have led to a representative group. Due to the involvement and knowledge about the transition, misunderstandings about the topic were prevented.

Per focus group, a minimum of 4 and a maximum of 5 people took part. This number was based on the moderator's experience with online discussions, as a larger number would have increased the risk of the process becoming chaotic or participants being limited in expressing their thoughts. With groups of this size, the discussion was ensured to run fluently.

Table 1.

Description participants focus groups.

	Gender	Function	Municipality
Focus group 1	v	Functional administrator	Emmen
	m	Strategic information manager	Groningen
	v	Information manager / Architect IV	Nissewaard
	v	Administrator of services	Enschede
Focus group 2	m	Functional administrator	Emmen
	m	Advisor information management / i-Advisor	Oldenzaal
	m	Administrator of Information Provision / Project leader rationalization & harmonization	Nissewaard
	v	Employee operations	Olst-Wijhe
	m	Project leader	Hellevoetsluis
Focus group 3	v	System coordinator	Twenterand
	m	Strategic Advisor Information Management	Roermond
	m	Advisor information management	Enschede
	v	Sr. Functional management	Zwolle
Focus group 4	m	Strategic information manager	Raalte
	v	Advisor e-Services & Business-oriented Working	Oost-Gelre
	v	Program manager services and operations	Deventer
	v	Administrator of Information services	Coevorden
	v	Concern Information Strategist	DOWR (Deventer, Olst-Wijhe, Raalte)
Focus group 5	m	Organization consultant	Roermond
	v	Advisor services/change management	Rotterdam
	m	Policy officer information management	Laarbeek
	m	Information advisor	Oldambt

2.4 Instrument & materials

The data collection instrument can be found in Appendix A. The focus group schedule was pre-structured in three themes (i.e., *Professional Identity, Changing practices, Changing qualities/role of employees*, including Entrepreneurial mindset and characteristics) with open questions starting broad and becoming increasingly specific. It was a combination of a confirmatory and explorative approach.

The first theme was introduced by asking participants what working at the government means to them. Subsequently, throughout the focus groups, it was checked whether professional identity plays a role in this context. The second theme referred to expected changes in practices, to explore what exact changes on the work floor the transformation would entail. Shortly it was

discussed for whom the transition would bring a lot of change, to make sure all participants had the same employees in mind for theme 3.

At theme 3, it was discussed what new qualities are expected from employees or what qualities would become increasingly important. At question 3.3, a list of qualities was compiled by the moderator that was shown to the participants. This list of qualities is based on theory, preliminary talks with employees at Dimpact, and webinars that were organized by a fund for municipalities.

The focus groups have been recorded and organized online via Microsoft Teams. The tool Miro.com was used during the discussion to collect input from participants.

2.5 Procedure

The development of early familiarity with the organization's culture has proved to be valuable before the first data collection takes place (Shenton, 2004). This was achieved via preliminary visits to the organization, involvement in tasks, and consultation of appropriate documents. Through discussions with employees of the organization, thoughts were exchanged regarding the relevance and value of the research to the organization's context, and a plan was made for the procedure. After having observed the working conditions and culture at the organization to get a clear image of what the organization represents to prevent biases based on literature, there was reached out to several employees at clients of relevance to the research.

First, a news publication article on the organization's intranet (to which clients also have access) was written and shared to make potential participants aware of the research and its relevance to them (Appendix B). A short explanation was given of what the study entails, what its value is, and what would be expected from participants. Additionally, the dates for the focus groups and the possibility to sign up were given. Participants who signed up were also asked for background information, such as their function and the municipality they are employed at. Second, meetings were scheduled with several employees at clients individually (to discuss other matters related to the transition), in which the research was explained and to inquire about their interest. Third, the participants who expressed interest were reached out to by e-mail or phone, to provide further information and to ask to sign up. Fourth, a short pitch (37 seconds) of the research was uploaded on the intranet to give the research a publicity boost. Fifth, participants who signed up were reached out to via confirmation e-mail and further details were shared about the data collection, such as the Microsoft Teams and Miro links. Sixth, the data collection took place on 2, 3, 10, 11, and 17 February from 10:00 to 12:00. To make sure the

participants fully understood the goal of the research, the use of data, and the conditions in which they could operate, an opening statement was given at the start of each focus group as well as a closing statement at the end (Appendix C). Furthermore, informed consent and permission for recording were given by the participants at the beginning of the focus groups, which were recorded. Seventh, some key conclusions were provided after all focus groups took place through a post on the intranet to provide people a first insight into the outcome.

2.6 Data processing and analysis

After data collection, the data was prepared for analysis. The tape, video, and audio were the primary source of data (Beyea & Nicoll, 2000). Additional notes were taken by the moderator. For data processing and analysis, the steps of Moretti et al. (2011) were taken. First, the video registrations of the discussions were transcribed (Appendix D) and thereby transformed into written text format. Transcribing is the representation of audible data and regarded as the first step in analyzing data as an interpretive process (Bailey, 2008). This was done manually, using VLC.

Second, the unit of analysis was defined, which is a "segment of text that is comprehensible by itself and contains one idea, episode, or piece of information" (p. 421). As such, codes were assigned to text segments if related to the research theme.

Third, a codebook was designed (Appendix E) and the transcripts were coded. This was done via open coding by applying general codes to the selected text segments. Codes were developed through deductive or a combination of deductive and inductive coding, based on the theoretical framework. For instance, the described aspects relating to identity (e.g., socialization) and the described entrepreneurial qualities (e.g., initiative-taking or accepting the risk of failure) that could play a role in digital transformation. Then, via axial coding, the code segments were specified to a gain profound understanding of the remarks made during the discussions. This led to inductive codes, for instance, the described expected changes on the work floor (e.g., agitation) and other qualities (e.g., broader perspective). An inter-rater test ensured the reliable interpretation of the text segments. This was done by Krippendorff's alpha reliability coefficient, which had an average of 0.84. The code group relating to '(Professional) Identity' was most critical but met the minimum range of 0.667 with a result of 0.69.

Taking Cornelissen, Akemu, Jonkman & Werner (2020) as an example, first-order categories and second-order themes were found leading to an understanding of the overarching theoretical theme that work floor changes, qualities, and identity-related to. The first-order

categories relate to what participants are saying, whereas the second-order themes are "researcher-centric concepts, themes, and dimensions" (Gioia et al., 2013, p. 18). Both sets of insights were used into a grounded theoretical model for this specific case relating to, for instance, professional identity and identity formation.

In reporting the results, all quotes were translated from Dutch to English. Original quotes can be found in the codebook and transcripts.

3. Results

3.1 Expected work floor changes

Even though this theme does not relate directly to the main research question, the topic is still useful to discuss and analyze as it might provide insights into what employees may need to prepare themselves for. Therefore, the findings are shortly discussed. In Figure 1, the data structure concerning first, second, and higher-order categories can be found.

Some comments on the expected changes on the work floor for employees were functional, such as that a *different user interface* is expected, and the *flexibility or standardization* of a system is at discussion. Nevertheless, in all focus groups, it was evident that a different user interface would be the case, but there was doubt among participants whether this would be the only big change or whether there would also be changes in working methods and processes.

Many contributions related to the effect of the change on the work floor. Despite the aforementioned doubt, in most of the focus groups, there was a group consensus that the transition will nourish a *new mindset*. For instance, participants explained that it is a *"change of mindset on which we need to keep working on"* (FG 3, P1). In line with this are the thoughts participants shared when discussing the effects on *digitalization* of the organization. One participant explained, *"This is not a technical change. If you look at it in a broad sense, it is a different way of working or a bit of organizational development. But if you take it even more*
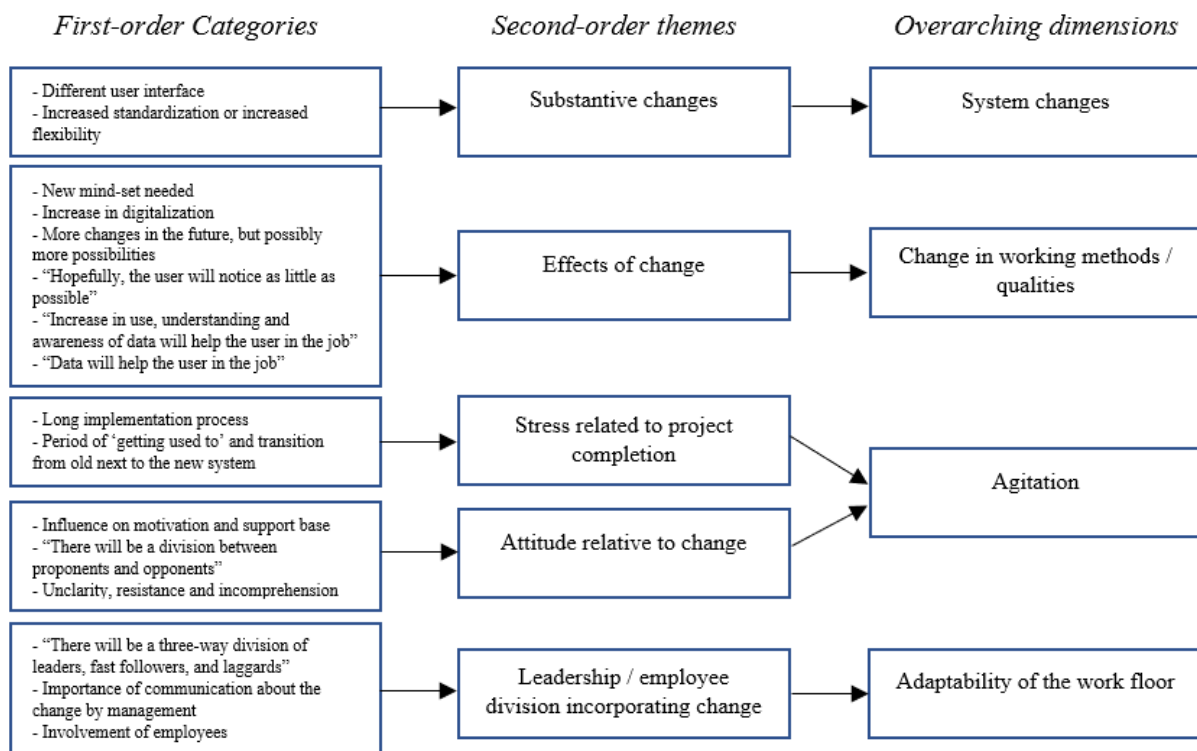
Figure 1. Data structure on expected work floor changes

broadly, this is part of a much broader transformation that also affects people's mindset." (FG 1, P1). Participants expected an increase in digitalization and big steps being taken in this field, influencing the pace of digital development in the organization. Nevertheless, few participants believed their organizations are already digital and this will not change or be affected to a great extent. Furthermore, an individual contribution was that an *increase in use of data* would occur as a change for employees in performing and facilitating their jobs. Overall, leading to group consensus, participants conformed with the hope that the end-user will be as little bothered by the transition as possible.

Concerning the employees, aspects concerning the attitude of employees relative to change and stress related to project completion were discussed. For instance, *unclarity* about the transition, a *long implementation process,* and a time of *getting used to* were emphasized in the focus groups. Participants at times found it difficult to state what will change for the employee, as much is unclear in the field of Common Ground. Regarding the agitation, topics such as unrest, concerns, pressure, and panic were mentioned in half of the focus groups. *"I expect quite a bit of resistance in the workplace, and incomprehension"* (FG 3, P4), one participant explained.

Concerning this unclarity, *communication about the change* by management was a much-discussed topic, relating to leadership. In each focus group, 'communication about the why' was emphasized. Reasoning participants mentioned for this was that employees should be involved and need to understand what is going on and what it takes from the organization. In one focus group, it was emphasized that strong leadership is needed, and the change should be propagated by management. Explaining, clarity of the vision and direction, attention to the advantages, and repetition of the explanation was said to be important. *"I think it is important to include employees in what you are going to do differently in the new situation, especially and why you are going to do it that way."* (FG 3, P2). Furthermore, it was mentioned that the transition will influence the *governance* as roles and the pace employees incorporate change are reforming.

3.2 Change in qualities of employees

As can be found in the data structure overview of Figure 1, the effects of the change could be highly related to the expected change in working methods and qualities of employees. Most participants supported the presented selection of ten entrepreneurial qualities. Of the collection of ten, most participants emphasized that all qualities were highly necessary for the transformation and that it would describe the "ideal" (FG 1, P1) or "future" employee. In Figure 2, the data structure regarding the qualities of employees can be found.

Many contributions are related to mindset and perspective, which in the end refer and relate to the topic of value creation. Having a *broader perspective* than most employees currently have, and being *customer-focused, process-focused,* and *open-minded* were emphasized. For the first, participants emphasized that it demands something from the mobility of employees and there is the desire of employees being able to look integrally and broader than their domain. This also relates to the process-focused remarks, as these referred to having the complete overview instead of being single task-oriented. For customer-focused, participants mentioned that customers must be placed first and a perspective needs to be taken on how the customer is aided with this transition in the end. *"The mindset will have to become more customer-oriented with an important role and position at the Customer Contact Center"* (FG 3, Miro note), a participant described.

Another emphasized topic relating to value creation was the *increased cooperation.* Some participants emphasized the importance of this topic as they found cooperation not something that naturally occurs. One of the participants explained its importance by the following
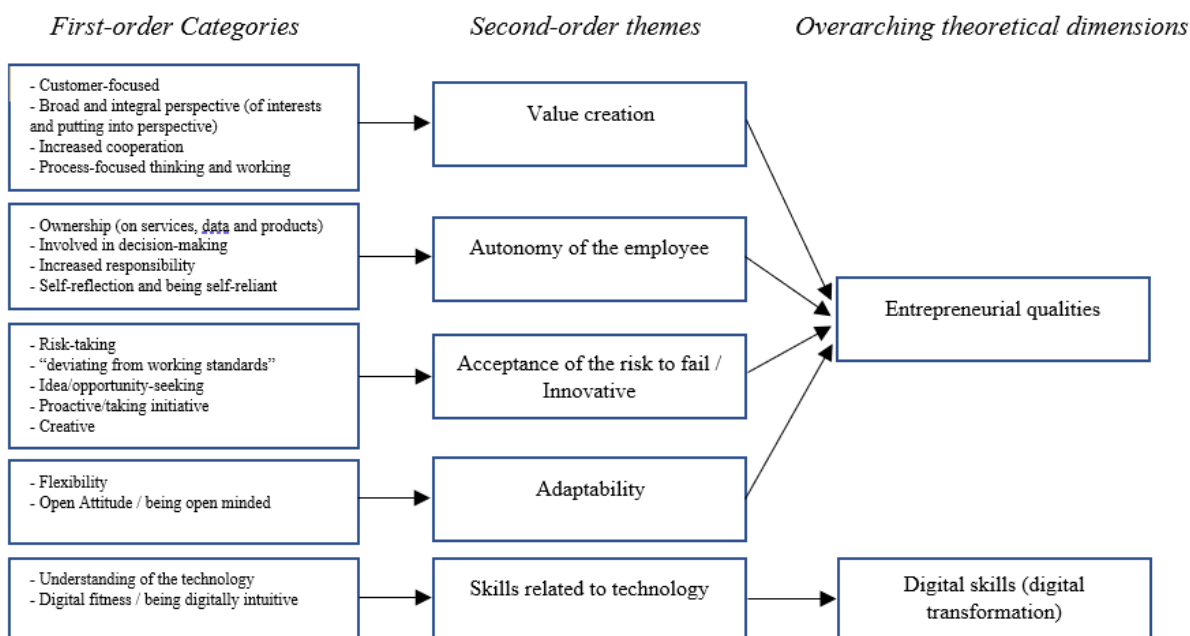
Figure 2. Data structure on qualities of employees

statement, *"Not completely holding onto your own principles, your own choices, your own wishes, your own requirements, but realizing that you are working together with others. If you want something with Common Ground, you cannot do it alone, you have to work together"* (FG 3, P2).

Nevertheless, besides cooperation, the autonomy of the employee was also a much-discussed topic. Discussed topics were *increased responsibility, involvement in decision-making,* and being *self-reliant.* These topics were highly interrelated. For instance, a participant explained, *"I think because you also feel involved in decision-making, you also think of yourself as important and you deal differently with the responsibility that has been assigned to you"* (FG 3, P3). One participant strongly believed that this topic was already implemented for employees during the implementation of the previous central system. Other participants, however, in the same focus group, emphasized that it is still a challenge. They considered the transition as a good reason to re-analyze this responsibility in the transition and to take the opportunity to discuss that aspect again. In the current situation, it was doubted in several focus groups whether organizations involve their employees well enough. Most participants hoped that end-users (employees) themselves will influence the components in the system. However, there was some doubt on this topic, as some believed involvement would be highly valuable, whereas others believed it might also hold back developments if employees are conservative. These participants believed involvement through good communication and informing employees well would be a better and more successful way. This was also dependent on the size of the organization. Additionally, one participant mentioned that the gap between management and employees is large if the organization is big, which is a challenge to diminish. Furthermore, the connection with working autonomously was made, as *ownership*, task maturity, and self-sustainability were believed to be related to the increased responsibility employees could have in the transition. Two participants mentioned the value of autonomous and self-organizing teams, with a well-defined set of rules, which would increase the responsibility as well as the ability to work autonomously.

Two topics to which many comments relate are acceptance of the risk of failure and being innovative. Participants explained that there should be the possibility to make mistakes and employees should accept that there is a big risk of failing, but the transition still needs to take place. Due to this risk of failure, not all employees are easy to convince or get on board with the change. This is believed to be a quality that employees do not currently have but is valuable in the transition. For instance, a participant described, *"What I notice is that people often want a lot of certainty from professional applications before they take the next step. Now, you*

actually end up in an environment with much more dynamics" (FG 3, P4). Furthermore, in one focus group, it was emphasized that accepting the risk to fail takes place in different layers, at management as well as employees. For *risk-taking*, it is more concerned with the attitude and way people behave. For employees, this relates to daring to take a chance and take the risk of something possibly not working, complying with accepting the risk to fail. *"If there is a standard [at the work floor], and you want to take a different direction, that is certainly taking a risk. That is very important, I think, for such a transition"* (FG 3, P4). Furthermore, it was emphasized this is also closely linked to the space you get from management to take such risks. Most participants believed these two qualities to be of importance, whilst a small part of the participants was in doubt of its value.

Conforming with the topics of acceptance of the risk to fail and being innovative, the discussed qualities of *idea/opportunity seeking* and *proactive/initiative-taking* were highly interrelated in the discussions. It was discussed that in the assumption of Common Ground, it is believed to ease the opportunity to plug in innovations. With that in mind, a participant contributed *"I think it would be very nice that a governmental department also looks closely, what are organizations around us doing, are there great developments that you would also want to get started with."* (FG 2, P1). By that, participants believed that it could lead to colleagues from different disciplines contributing with ideas that will encourage development. A participant mentioned that one could hope for employees to notice what the technical opportunities are in their work and to anticipate that. This topic had reached group consensus in each focus group. *"Working outside of the prescribed systems"* (FG 2, Miro note) is a description that conformed with most of the visions of employees.

Additionally, being *creative* was a quality of which there was doubt among participants on its relevance in the transition. Most of the participants supported that it would be of increased value for employees to have as a quality and few found it difficult to envision that this quality would be more important than it currently is. For the participants in doubt, it regarded the comparison between now and the future, and not whether the quality would be of importance at all. In one case, a participant responded to this doubt with *"I think that creative people are more open to change. They also deal with it very differently. Because they are creative, they can solve or approach things differently"* (FG 3, P3) as an explanation of the relevance of the quality. *"If you actually take the system, your process, the agreements, I think you can indeed tackle such a situation by the creativity and innovativeness of the employee."* (FG 3, P2). To be creative was a quality that occurred more often before the ten qualities were presented by the researcher.

Furthermore, in each focus group, it was emphasized that *adaptability* and *flexibility* are necessary and valuable qualities for employees to have in and after the transition. The willingness and ability to adapt to the new situation must be there, as increasingly more changes will follow due to quick developments in the field of technology. *"Employees will have to become more digitally skilled and self-reliant to be able to respond flexibly to ever more and faster changes"* (FG 3, Miro note), a participant explained. For all focus groups, this led to a group consensus. Regarding *open attitude / open mind*, relating to flexibility and adaptability, some focus groups reached a consensus that it will help if employees would loosen themselves from routines and go along with the new developments. An example of a statement made by a participant is, *"I think an open attitude of employees is desirable, to find out can they be open to a new story at all?"* (FG 3, P1).

Another much-discussed topic on its relevance in the transition was *understanding of the technology,* in the end referring to (digital) skills related to technology. At some focus groups occurred discussion about whether this is a quality of relevance or not. On the one hand, participants explained that an understanding of the technology could contribute for employees to get a practical image of the system, understand the why and how to be prepared for how the system works, and that it may help to get a general dexterity in the use of the system. On the other hand, participants mentioned that they do not feel the need to understand the technology and that employees do not need to know what the system entails, but it is important to understand the bigger picture. In conclusion, a group consensus in one of the focus groups was that it is not a requirement, but that it can be supportive. In one focus group, no group consensus was reached, as half of the people believed the quality to be of no importance at all and half of the group believed it to be highly relevant. One participant for instance explained that knowing the process contributes to an understanding of to what extant a system works and added *"I think that is also the future employee we want to go to. I think that you will also have to deal more with super users and key users, instead of the split between functional application management and the 'normal employee'"* (FG 2, P2). The functional application management focuses on the backhand of the technology, for which the understanding of the technology is considered an obvious quality.

Nevertheless, one main type of skill that was emphasized and which reached group consensus in each of the focus groups, except for one participant, was *digital skills.* Participants explained that it was noticed on the work floor that many colleagues are lacking in their current digital skills and find it a challenge to keep up. For instance, *"You want a bit more in the digital field for people to develop skills and knowledge in that area"* (FG 4, P3). It was believed that

digital skills are becoming increasingly important and need a boost for most colleagues, as these skills are not developed well enough yet. These skills are challenged in this transition and participants mentioned it would be valuable if employees are intuitive in the use of digital systems. *"I called it digital fitness. I really notice now, everything went so quickly, the entire digitalization and how we have set it up altogether, that we have forgotten to take our colleagues along well"* (FG 5, P1).

Some general individual contributions (not in the data structure overview) were that employees are ought to be more *curious,* be a *good listener,* and have a *critical attitude.* Concerning skills, the individual contributions were *analytical thinking, communication skills,* and *data skills.* For communication skills, the participant emphasized that employees currently are not able to write documents about why they are (not) performing actions, in the form of simply presenting a decision or asking a question. For data skills, the participant emphasized that the increased awareness and use of data will provide many opportunities. The participant explained, "*It [the transition] also requires some data awareness from employees, and in this, I notice among a lot of employees that there is still a need for growth"* (FG 4, P1).

3.3 Change in Professional Identity

As described in 3.1 and 3.2, adapting to new ways of working, a new mindset, and the importance of incorporating new qualities is discussed. For employees, this is the beginning of a change of professional qualities and mindset. As such, this relates to the process of changing one's professional identity. The data structure on professional identity can be found in Figure 3.
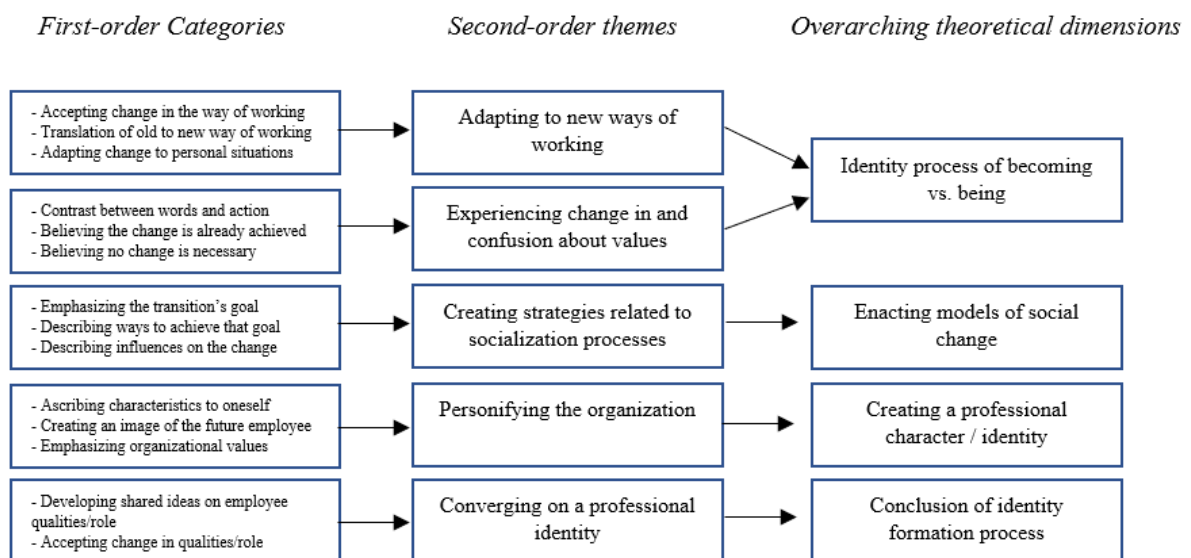
Figure 3. Data structure on professional identity

As mentioned before, during the discussions of qualities and roles, it was often emphasized that the concluding qualities described the 'future' or 'ideal' employee. This also relates to the concepts of *identification,* focused on social categories, and *self-concept,* focused on one's beliefs, values, attributes, experiences, and motives. In most focus groups, a consensus was reached on the identity that is needed in and after the transition, and what should be strived for in an employee. At the same time, their own values were emphasized. For instance, about half of the participants emphasized the societal contribution in their work as a value. A participant explained that the reputation of the government is not always as good, but "*it does provide something in return to be able to contribute to the societal happenings*" (FG 3, P1). Additionally, the non-innovative character of municipalities and the small ability to change were emphasized. Another contribution made was that employees should let go of individual principles, own wishes, own demands and realize it is a transition of cooperation and shared values, beliefs, and motives.

Relating to the concept of the process of *becoming vs. being*, participants mentioned that the agitation towards the transition will keep people from smoothly going along with the change. Due to the unrest and expected incomprehension, employees will try to hold on to the 'old method' as long as possible and will continue to translate the new method into the 'old ways of working'. Participants believed a way needs to be found to motivate employees, aside from cultivating an understanding and taking the employees' situation into account. *"I think you should also use other techniques, perhaps reward in some way or give extra specific attention. You may even have to give them really explicit space and time to continue that development and give them a different kind of attention"* (FG 3, P4). However, there was a division in opinion relating to the provision of individual attention to employees, so no group consensus was reached. In some focus groups, it was believed individual attention and adaption to the situation would be helpful, whereas others believed there should be a focus on the 'key users' that pick up the change quickly. The latter believed, if one group of active employees adopt and tug the change forward, employees that are not willing to change and are lagging will follow.

In two focus groups, participants took part who believed no change in qualities and role of employees can be expected, because "digital is digital". Those participants believed the change has been made years ago and the transition will not awaken anything in that regard. Nevertheless, in both focus groups, other participants did not agree as they believed the ever-changing digital field is developing faster than ever. They did nuance that certain qualities could have been strived for before, but this has not been achieved and this transition is a key moment

to analyze the desired qualities and employee role for the new situation in detail. This also relates to the process of becoming and resisting the process of continuous change.

Continuing to build on the consensual identity (i.e., the discussed qualities and role, relating to identification and self-concept) that was reached in focus groups, participants discussed aspects relating to *identity work*, referring to the evolving and changing self of the individual. Participants discussed the time of transition, for which in two focus groups it was believed that employees should be allowed to work with the new system alongside the old system, to habituate. For instance, a participant explained, *"Then, I have more time to get used to the idea that something changes. I also have more time to let go of the old system and old habits. Give employees that time."* (FG 3, P3). However, a consensus was reached that people should beware to fall into old patterns and not taking the change in working processes seriously. One participant explained that this is due to people biologically choosing the path taking as little effort as possible. New employees, for instance, who are not that familiar with the old system evolve way smoother. In case employees fall into old habits, it was believed management should not tolerate this and steer employees stronger into the new agreements. Furthermore, for many employees, the new business-oriented system feels like a task on top of their work, instead of internalizing the tasks into their professional discipline. This makes the change of the self difficult, as the transition or new way of working is not acknowledged.

Other relating and recognized processes are *internalization* and the *socialization process*. As aforementioned, internalization refers to internalizing virtues to act in a certain way and socialization is a way for people to obtain information about meanings related to a profession, leading to professional identity. It was doubted in several focus groups whether much attention should be paid to employees who are not willing or able to go along with the change. More importantly, creating support, key users, involvement, the ability to express frustration were aspects believed to contribute to the internalization and socialization of change in most focus groups. One focus group questioned whether municipalities currently could deal with resistance and be able to involve employees well enough. Exemplary behavior, use of policy, the provision of space and time to adjust, and possibly implementing rewards or specific personal attention were proposed as possible solutions in several focus groups. Additionally, in one focus group, it was emphasized many challenges and developments are yet to come for governments, for instance concerning decentralization of governmental service, being an aspect of the discussed transition. This influences the current professional identity of employees.

Concerning the aspect of 'obtaining information about meanings related to a profession' of socialization, communication was a much-discussed topic. The way the change is implemented

and guided by management has a big effect on the way people develop meanings relating to their profession. The necessity for change and what it takes from the organization was believed to be important, but employees should also be able to translate this into their own profession and own actions. "*If you know what changes there are, what it can make more efficient, it can make your job easier.*" (FG 1, P2), which may contribute to the adoption of change. In one focus group, participants exchanged experiences on the set frameworks by management in working with systems. Concluding, a participant explained if these frameworks are missing, employees set their own frameworks. This results in frameworks created by the systems and their own experiences. This is not convenient for the transformation, or the adoption of new values, beliefs, or motives about a profession.

Furthermore, it was analyzed whether individuals adapt their identity and/or values through *career transition* or *influences* from their personal *life* to clarify self-understanding. Some participants, when explaining what working at the government meant to them, did emphasize values that became clearer due to previous jobs at corporate businesses. For instance, the societal values or working without a profit motive. Life experiences influencing professional identity have not been emphasized by participants.

4. Discussion

4.1 Scientific implications

Innovation management practices and scientific research have emphasized the role of competencies to meet the digital transformation challenges (Butschan, Heidenreich, Weber, & Kraemer, 2019). As described in the results, entrepreneurial qualities for employees are believed to contribute to the success of a digital transformation. These are divided into the sections value creation (e.g., Customer-focused & increased cooperation), the autonomy of the employee (e.g. Increased responsibility & Involved in decision-making), Acceptance of the risk to fail/innovativeness (e.g. Risk-taking & proactive), Adaptability (e.g. Flexible & open-attitude) and digital skills (e.g. digital fitness and understanding of technology).

The results of 3.3 on entrepreneurial professional identity were triggered by the results of 3.2 on entrepreneurial qualities, as the change in necessary qualities affects one's professional identity. A new envisioned professional identity was created by the participants. Following, the desired entrepreneurial professional identity and its formation process will be discussed.

4.1.1   A short reflection on the entrepreneurial quality themes

Entrepreneurial qualities are ought to be incorporated for employees in a digital transformation. Entrepreneurship, as a dynamic process of vision, creation, and change, requires passion and energy towards the implementation and creation of new ideas and creative solutions (Kuratko & Audretsch, 2009). According to Kuratko (2009), essential ingredients are "the willingness to take calculated risks, formulate an effective venture team, marshal the needed resources, build a solid business plan, and, finally, the vision to recognize opportunity where others see chaos, contradiction, and confusion" (p.5). This complies with the results, such as being creative, risk-taking, initiative-taking, idea/opportunity-seeking, and innovative all were believed to contribute to this context.

Additionally, as digital transformation results in new processes with more intense coordination among functions and new forms of cross-functional collaboration (Porter & Heppelman, 2015), value creation is an important theme. From a broad perspective, entrepreneurship can be defined as the extraction or creation of value (Alvarez & Busenitz, 2001; Diochon & Anderson, 2011; Gaddefors & Anderson, 2011). Cooperation among employees, a broad perspective, and the quality to be customer-focused were qualities emphasized as important by participants. In scientific research, the concept of *'value creation'* is mostly referred to as the co-creation of value among customers and employees through interaction, experience, and empowerment (Lee, Olson, & Trimi, 201; Prahalad &

Ramaswamy, 2004). For such constructs, strong network ties in a digitalized ecosystem will benefit different parties by stimulating innovation processes and improving the adaptability to the ever-changing business environments of this century (Aksin-Sivrikaya & Bhattacharya, 2017). Accordingly, the value captured and created in the ecosystems is needed to be focused upon during the digital transformation (Westerlund, Leminen, & Rajahonka, 2014).

Baldwin (2012) states, that for employees and the organization itself, an organization must think about the distribution of people and activities across enterprises in a way that is most advantageous. Employees are expected to manage the introduction of new technologies in the workplace, as well as supporting others in their practices (Köffer, 2015). The responsibility, mobility, and autonomy of employees, as well as the collaboration among employees, are highly affected. These work methods and quality changes affect the behavior and expectancies of employees in some way, but most importantly, it affects their professional identity. Following, the relation is made between the discussed entrepreneurial qualities and one's professional identity.

4.1.2 Entrepreneurial professional identity

Entrepreneurial competencies influence the entrepreneurial career intention and alertness, being independent career development constructs (Obschonka, Hakkarainen, Lonka, & Salmela-Aro, 2017). These competencies are, among others, creativity and proactivity motivation (i.e., entrepreneurial alertness link). These aspects were concluded to be valuable for employees to have in a digital transformation. According to Obschonka et al. (2017), the independent career development constructs both represent different facets of the emerging entrepreneurial mindset. Whereas career intention concerns career planning outside of the environment, entrepreneurial alertness considers the variety of innovation behavior and entrepreneurial activity. The latter was found to be important by the participants in this study, which are constructs that, thus, may affect one's professional identity.

Entrepreneurial identity has many components. For instance, there is the cluster of the individual identity, involving categories of gender, ethnicity, race, religion, and profession, as well as the cluster of identity beyond the individual, incorporating the organization, nation, and industry one is in (Ollila et al., 2012). These may also be referred to as the individual and organizational level of an identity, which both are shaped by and drive entrepreneurial actions (Leith & Harison, 2016). Therefore, the found entrepreneurial qualities and for employees to take on an entrepreneurial role may contribute to the development of an entrepreneurial professional identity.

Another perspective to look at Entrepreneurial Identity is, as stated by Yitshaki-Hagai & Kripp (2014), taking otherness (i.e., being different), sameness (i.e., being alike), and identity centrality and salience into account, which can be related to the discussed construct of 'internalization'. The scholars found that passion is a dynamic motivational construct, associated with an entrepreneur's self-concept of one's role identity (i.e., internalized meanings associated with one's role). The interrelations between self-concepts of role identities and entrepreneurial passion are perceived differently in different contexts, as entrepreneurial identities exist on the individual, cultural, and contextual level. In this research, a high interrelation between the self-concept of role identity and entrepreneurial passion was found. The scholars also concluded that many shared values and beliefs were found, but many were dependent on the working context or the (cultural) context of change. This is also confirmed, as participants were found to have shared organizational beliefs and values by formulating qualities, which are dependent on the context of change, being digital transformation.

So, the results show that entrepreneurial professional identity is affected by organizational and contextual influences, rather than being a stable factor. Based on a literature review regarding entrepreneurial identity (Ollila, Middleton, & Donnellon, 2012), however, it was found that many articles display identity as a fixed state of existence. This has resulted in categorizations that include entrepreneurial identity relating to gender, careers, ethnicity, and the family framework, rather than a process of construction. For instance, a focus lies on entrepreneurial identity to be constructed in the situation (Down & Warren, 2008; Hytti, 2003; Johansson, 2004, as cited in Ollila et al., 2012) and by socialization (Falck et al. 2010; Rigg & O'Dwyer 2012, as cited in Ollila et al., 2012), instead of the process. In the analysis of the results in this thesis, it was found that socialization was an important part of the process in developing a professional identity, but the process in identity development is of importance. Due to problematic assumptions on entrepreneurial identity, the understanding of the meaning, influence, and formation of entrepreneurial identity in action may be limited (Kašperová, & Kitching, 2014). This leads to a homogeneous treatment of entrepreneurs, rather than as embodied individuals.

Thus, despite identity being often displayed as a fixed state of existence, in this thesis this is not believed to be true. This is because entrepreneurial processes are less bounded. Nambisan (2017) illustrates the fluent nature of entrepreneurship. The scholar states, "new digital technologies have transformed the nature of uncertainty inherent in entrepreneurial processes and outcomes as well as the ways of dealing with such uncertainty" (p. 1029). Nambisan states that with digital technologies, a shift can be recognized from a predefined set of entrepreneurs

towards continuously evolving, entrepreneurial collectives with diverse capabilities, goals, and motives. Structural boundaries for entrepreneurial outcomes are continuously shifting, whilst the temporal and spatial boundaries for its processes are too. Therefore, entrepreneurial processes and outcomes are less bounded, and more fluid, and entrepreneurial agency is more distributed, rather than predefined. Due to the rapid digital changes across industries, it is important to consider that entrepreneurial opportunities in markets are infused with digital technologies, and employees are ought to adapt flexibly to the rapid changes, which conforms with the results in this thesis.

Nevertheless, the dynamics of entrepreneurship in identity are complex and should be better understood to understand how actors behave in entrepreneurial contexts, as well as the process of how such identities are shaped (Leith & Harrison, 2016). Therefore, a framework displaying the found process is constructed in the following section.

4.1.3   A proposed framework for Entrepreneurial Professional Identity
The following process is defined, as visualized in Figure 4, including the found entrepreneurial qualities that contribute to the context of digital transformation and the relations to professional identity.

The process starts with work floor changes that occur due to the digital transformation and ends at a premature conclusion of the identity formation process. First, system changes and agitation are expected, but also a change in working methods and qualities, and the adaptability of the work floor. Second, as currently found for the involved employees, participants have personified the organization by developing a professional identity based on the changing role of employees due to the changing context, being the digital transformation. Third, this resulted in a professional identity with an overview of qualities that relate to the themes of value creation, autonomy of the employee, acceptance of the risk to fail, innovativeness and adaptability, and skills related to the technology. This has been discussed in section 4.1.1 of the discussion. Fourth, one adapts to new ways of working and experiences a change in and confusion about values as a process of becoming instead of being and accordingly creates strategies related to the socialization process resulting in models for social change. Fifth and last, this eventually converges on professional identity.

In the previous section, the entrepreneurial professional identity is discussed, referring to the identified entrepreneurial qualities. However, despite the entrepreneurial professional identity being of relevance for digital transformation, this may conflict with one's self-concept relating to governmental professional identity. When considering the change process towards another

identity, the process of becoming is especially intense for the aspiring professional (Sveningsson & Alvesson, 2003). Therefore, the 'process of becoming vs. being' deserves extra attention, as this might be extra challenging in this context.

Models of 'entrepreneur identity' propose strong links between the self-concepts of entrepreneurs and the subsequent outcomes (e.g., Cardon et al., 2009; Shepherd & Haynie, 2009). This emphasizes the importance of the process of becoming vs. being, as one should alter the self-concept to act upon the newly identified professional identity.
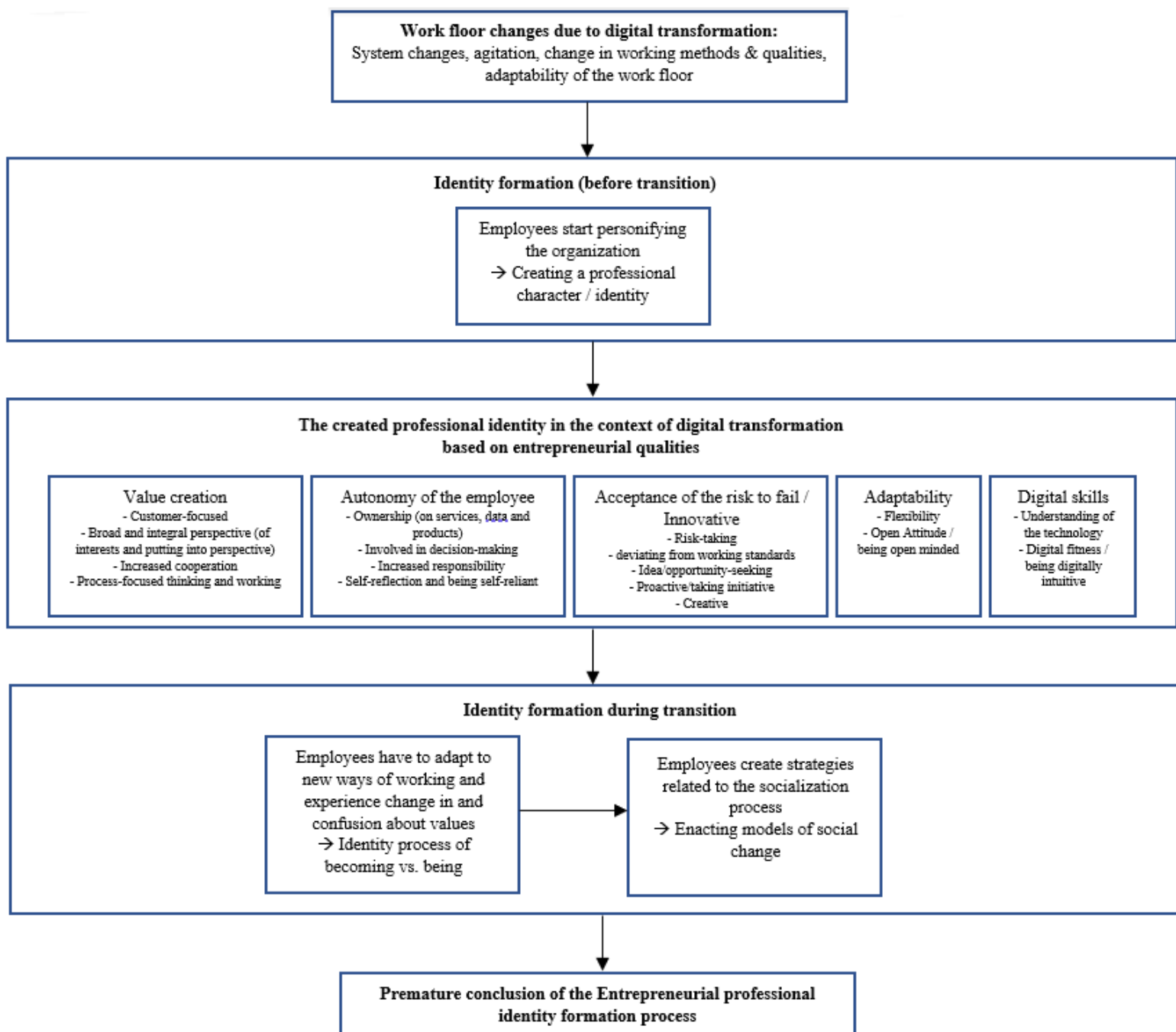
Figure 4. Framework entrepreneurial professional identity process

Accordingly, if the employees, being employed at governments in this case, would alter their self-concept, and adopt entrepreneurial motivation, the outcome (i.e., entrepreneurial professional identity contributing to the digital transformation) would be realized. Farmer, Yao & Kung-Mcintyre (2011) examined the entrepreneurial motivation from an identity-possible self-perspective, to understand what moves entrepreneurial aspirers to action. Despite that the entrepreneurial professional identity may conflict with the current identity of the participants in place, they did emphasize to be aspirers of qualities that are considered to be entrepreneurial.

Hence, based on the created professional identity by qualities, the aspiration for entrepreneur identity is confirmed. The model of Farmer et al. (2011) describes antecedents of entrepreneur identity aspiration and its outcomes. As a first construct, they investigated congruence with the perceived entrepreneur role and had found that the strength of aspiration associated significantly with whether one's self-description would fit one's perceptions of an entrepreneurial role. A second construct, the strength of entrepreneur identity aspiration, was important as well, considering whether it was important to an individual to become an entrepreneur. These aspects are highly important for the case in place, as the perception of an entrepreneurial role is expected to be highly different from the currently identified aspiration for entrepreneur identity. Subsequently, this emphasizes the confusion about values that will come in place later in the identity formation process, as it is expected that entrepreneurial professional identity conflicts with governmental professional identity. The third construct in Farmer et al.'s (2011) model, nascent entrepreneurial behaviors considered the conceptualization of the entrepreneurial process. Prior start-up experience regarded whether individuals had ever begun a business. It was confirmed that entrepreneurial identity aspiration explained variance in behaviors. This construct does not apply to this case. However, the scholars stress that competence and motivation alone may not be sufficient to define the entrepreneurial process.

The process of becoming vs. being and conflicting identities have been discussed, but as mentioned, these aspects may not be sufficient to define the process. Another aspect identified in the framework is the creation of strategies related to the socialization process by employees. By this, employees enact models of social change. In the results, it was found that participants identified the goal of the digital transformation, how to achieve this goal, and the influences of this transformation, being strategies.

The formation of identity involves an ongoing iteration of the self-definition (i.e., the prementioned self-concept) and social definitions (Ybema et al., 2009). The latter is framed through professional and organizational discourses relating to desirable and appropriate behavior as well as creating shared beliefs (Bourdieu, 1977). For this process and iteration, an

endless variety of strategies may be developed by employees. This could be, for instance, ignoring and oblivious employees or the liberation of contemporary individualism (Ybema et al., 2009).

Finally, whilst this framework seems to have a clear beginning, middle, and end, most research demonstrates identity formation as constantly 'under construction' (Ybema et al., 2009). As such, taking the contextual digital transformation influences and socialization influences into account, 'identity formation' can be considered a dynamic interplay between external prescriptions and internal aspirations, between self-concept and social categorization, and between resistance (i.e., confusion about values) and enactment.

4.2 Practical implications

This research can be of practical use for organizations that find themselves in a digital transformation. As found in literature, most research and organizations focus on the technical aspects and implementation of a digital transformation but are lacking in their focus on employees and the work floor. Despite the great influence of employees on the success of a digital transformation, most organizations do not emphasize investigating the (changing) role of employees in such changing times. The outcome of this research can be used to understand the motives, beliefs, and values of employees in a period of transition. Different aspects influence an employee's vision and perspective on a digital transformation, but clear qualities and a changing role for employees exist in this context.

The entrepreneurial professional identity can be used to create an image of what kind of new employees an organization should attain that contribute to such transformations. For current employees, the overview of qualities may be used as input to create training programs for employees to develop certain skills or to conduct a talent analysis to find what weaknesses the organization finds itself in that influences the success of a digital transformation. Additionally, these results could be used for change management plans.

From a practical perspective, for the accomplishment of transformation, it is important to understand the four primary layers that are involved in such an ecosystem for an organization, which are Customer Solutions, Operations, Technology, and People (PwC, 2018). These four ecosystem layers serve to connect an organization's activities, forming the basis of a well-integrated digital value chain. The People ecosystem supports and enables the efforts of the other aforementioned ecosystems and focuses on the domain of organizational culture and competence. This ecosystem affects the performance and strategic direction a company will

follow. For this particular ecosystem, it is found that the skills and capabilities of employees are ought to be identified to be able to cover the wide gap between the analog and digital culture of organizations. Subsequently, skills development opportunities and training should be offered, guiding employees within the organization to develop a certain professional identity, fit for the digitalized context. The results of this thesis can support this, the professional identity and competencies being entrepreneurial ones.

Lastly, this research is future-oriented, meaning that it is an expectation of an envisioned future. However, employees are not fully aware and cannot know what this envisioned future exactly will look like. Therefore, it is recommended to hire a person to track the expected future-oriented change that is found by participants according to reality.

4.3 Limitations

Notwithstanding this research has contributed to theoretical and practical knowledge, it has some limitations. The research has been conducted during the Covid-19 outbreak, which had its effects on the data collection method. The focus groups have been conducted digitally, which may have influenced results. Participants may have been less eager to speak up in case they had a contribution or did not agree. For instance, there is a moment of delay in online meetings when responding to another participant. In this situation, the role of the moderator slightly altered, as the moderator had to continuously give turns to people to speak, more often compared to a real-life focus group discussion.

Another limitation is that the context of the research is conducted for organizations as a whole, whereas the case was conducted at an organization focused on municipalities. In literature and analysis, the emphasis on the digital transformation process took on insights from the corporate context as well. This may have been of influence on the theoretical basis of the research, as municipalities may have a different digital and innovative culture than companies do and different incentives for digitally transforming. Nevertheless, due to the theoretical basis and investigations into experiences at other businesses and industries, it is expected that the results are applicable to municipal as well as corporate contexts.

4.4 Future research

The dynamics of entrepreneurship in identity are complex and should be better understood to learn how actors behave in entrepreneurial contexts, as well as the process of how such identities are shaped (Leith & Harrison, 2016). This was one of the reasons for conducting the current research, but little research is conducted about entrepreneurial professional identity. It

is recommended for future research to dive further into the specific process of entrepreneurial professional identity development and to develop an entrepreneurial professional identity framework. Furthermore, other identities besides entrepreneurial professional identity concerning the context of digital transformation should be investigated, to investigate their values for digital transformation. This may contribute to the further acknowledgment of the employee's qualities and roles in digital transformation.

As stated before, the adaption of employees to the situation is in research seen as a sustainability requirement for Industry 4.0 (Gabriel & Pessl, as cited in Machado et al., 2019). Ideally, the opportunities and guidance should be offered by management, guiding employees within the organization to aspire to develop a certain professional identity, fit for the digitalized context. Therefore, it is recommended for future research to focus on these management practices contributing to employees developing entrepreneurial behavior in their professional identity and the effects of this on a digital transformation. In the subsequent research, Thesis 2, this will be investigated using the results of Thesis 1.

5. Conclusion

This research has shown the contribution of entrepreneurial qualities and entrepreneurial professional identity in the context of a digital transformation. Rather than taking the technical feasibility of digital transformation into account, the necessary employees' qualities and role have been discussed. The great influence of the work floor on the success of a digital transformation has been emphasized, which is often neglected in research and organizations.

Based on the established list of entrepreneurial qualities, a professional identity is created in the context of digital transformation. This identity is put into perspective in an identity formation process starting from work floor changes due to digital transformation until the premature conclusion of the identity formation process, as analyzed based on the input of the participants.

Furthermore, the findings were not always in accordance with previous work in the field. Identity is often displayed as a fixed state of existence, whereas for entrepreneurial professional identity this is not believed to be true. This is because entrepreneurial processes are less bounded. Due to the nature of uncertainty inherent in entrepreneurial processes and outcomes and the rapid digital changes across industries, it is important to consider that entrepreneurial opportunities in markets are infused with digital technologies, and employees are ought to adapt flexibly to the rapid changes. Therefore, entrepreneurial agency is more distributed, rather than predefined, for which the set process in entrepreneurial professional identity development can serve as a framework.

THESIS 2

This research is subsequent research of Thesis 1 due to which the same context applies, hence the shared introduction. In the context of digital transformation, Thesis 1 focused on what entrepreneurial qualities contribute and the ascertained entrepreneurial professional identity and Thesis 2 focuses on how management can help employees to develop these entrepreneurial qualities and professional identity. The outcome of Thesis 1 is used for Thesis 2.

1. Theoretical Framework

1.1 Managing the changing professional self-concept of employees

Digital transformation leads to changes in the professional organization and employee practices and roles. As studied in thesis 1, this can be, for instance, the development of entrepreneurial behavior or qualities. This influences the self-understanding of employees, which needs to be well-guided by management. Does it correspond, enhance, or is it threatening to their self-understanding as a professional? These are questions for managers to cope with. However, if a manager is starting at building an entrepreneurial mindset in the organization, one is probably recommended to hold off as rushing the process will not lead to the proper development of the core capacities or values (McGrath & MacMillan, 2000). Therefore, this is ought to be watched carefully, to not push employees into top-bottom visions that hamper the internalization of new behavior and a new identity.

Eilam & Shamir (2005) state that change will be supported to the extent it is conforming to employees' self-concepts. This can be explained by the fact that change poses threats to these self-concepts and is experienced as stressful. Four aspects that can be distinguished that are of particular importance in that matter are self-determination, self-continuity, self-distinctiveness, and self-enhancement. Depending on how employees experience the threats to these aspects, their behavior is influenced.

Self-concept is defined as one's beliefs, perceptions, and attitudes regarding oneself. As explained in thesis 1, professional identity is defined as the professional self-concept based on beliefs, values, attributes, experiences, and motives (Ibarra, 1999; Schein, 1978, both cited in Slay & Smith, 2010). In this study, too, for 'self-concept' the professional self-concept is considered.

As for recommendations, Eliam & Shamir (2005) pose that management should address fundamental threats if they want little resistance and the change to be supported. Self-concept threats of employees should be minimized if and where possible. Therefore, change should be

implemented and designed in a way it minimizes these threats and should be framed in terms of continuity conforming with the existing identity in place. Furthermore, the change should be presented in a way that focuses on the opportunities for self-renewal, self-enhancement, self-expression, and self-determination. If the change poses threats to identity, the possibility of introducing the opportunity of self-enhancement and self-expression for employees should be integrated.

1.2 Management to encourage entrepreneurial action

A more integrative perspective is needed when examining entrepreneurial thinking in existing organizations (Kanter, 1982, as cited by Gupta et al., 2004). As mentioned before, the incorporation of an entrepreneurial mindset can be seen as a core element of strategic management (McGrath & MacMillan, 2000). As such, management plays a key role in realizing such behavior. To encourage entrepreneurial action in a firm, Gupta et al. (2004) recommend four conditions.

The first condition to encourage entrepreneurial initiative is the effectiveness and presence of the communication of an entrepreneurial vision. Shared values among members of the organization should be clearly articulated, and the visionary role of management in changing situations emphasized. The second condition is to provide processes that support and nurture innovation, such as systems that encourage employees in innovative thinking and the ability to share ideas, that allows shaping the success of business ventures and new products. The third condition is to provide processes to secure and generate resources and expertise. As such, an organization can be more responsive to change and better allocate resources. The fourth condition is the capacity to assist the progress of continuous exploration and the generation of ideas. Autonomous strategic decision-making is then promoted, as experimentation and autonomous initiatives by employees are fostered. This generates commitment and increases levels of involvement. Pressures to create new opportunities and to continuously discover are institutionalized, which generates initiatives that expand the existing resource bundles, and it strengthens flexibility.

Management is challenged by the task to mobilize the organization's capacity and stakeholders to realize the conditions above. Two interrelated challenges are central, of which the first is to create and enact a scenario of possible opportunities, and the second to convince potential followers and the organization's stakeholder network that the transformation is feasible by assembling the right resources to accomplish the scenario-based objectives. The

latter relates to the creation of a cast of characters, which are people who provide the necessary resources to realize the transformation. (Gupta et al., 2004)

1.3 Behavior as an entrepreneurial leader

Related to the two challenges, different roles can be adopted and modified by leaders (McGrath & MacMillan, 2000). For instance, to make the organization able to develop capabilities meeting the needs of customers. These roles, also seen as responsibilities, are believed to be important when aiming for everyone in the organization to take entrepreneurial initiative.

The first role of that of *framing*, aiming to push the team towards the limit of their abilities, whilst maintaining the right balance by not pushing them over their limits. So, to realize the transformation, a pragmatic understanding of the involved individuals' capabilities is of importance.

The second role is that of *absorbing uncertainty*, by which a clear vision to be enacted by employees is formulated, whilst taking responsibility if being wrong about the future. Subsequently, uncertainty effects are considered, and confidence is built in the management to act according to the vision.

The third role is the *path-clearing* one, for which management negotiates the external and internal environment. As such, management dissolves and anticipates potential resistance, gain support from key stakeholders and eliminate obstacles to be able to accomplish the desired goals. These three roles contribute to scenario enactment, whereas the following two roles relate to casting enactment.

The fourth role is *building commitment*, for which leaders use team-building skills to mold and inspire a team committed to accomplishing a described scenario. The aim is to develop extraordinary energy in the team, leading to employees being highly committed to the organization's goals.

The fifth role is to *specify limits*, to be able to sustain and hold commitment as opposed to constraints and setbacks in the process. By doing so, perceptions of capabilities are reshaped by eliminating certain ideas of limitation, which facilitates creativity.

1.4 Intrapreneurship compared to management concepts

Atoncic & Hisrich (2003) explain intrapreneurship as emergent behavior or behavioral intentions that are different from the customary ways of working in existing organizations. This concept, according to them, has both differences and alignments when compared to other similar management concepts, such as capability, organizational learning, diversification, and

organizational innovation. As such, intrapreneurship differs but also has a relation with capabilities and organizational innovation.

The different management concepts are based on management literature, which can contribute to specifying an understanding of intrapreneurship. Here, diversification strategy deals with the strategic selection of industries, for the expansion or entrance (Roberts & Berry, 1985). The concept of capabilities refers to the organizational resources being durable and difficult to imitate, differentiating the organization from competitors, and could explain that achievement of organizational competitive advantage (Rangone, 1999). Organizational learning refers to the "ways firms build, supplement and organize knowledge and routines, around their activities and within their cultures, and adapt and develop organizational efficiency by improving the use of broad skills of their workforce" (Dodgson, 1993, p. 377). Of the four discussed concepts, organizational innovation may be closest connected to intrapreneurship. Innovation is seen as a specific function of entrepreneurship and distinguishes entrepreneurial from managerial aspects (Drucker, 2014). As stated by Antoncic & Hisrich (2003), the concepts of intrapreneurship and innovation both share the focus on newness.

2. Method

Because clients of the same organization (i.e., Dimpact) are used in Thesis 2 as used in Thesis 1, information regarding the organization can be found in section 2.2 Organization of Thesis 1.

The goal of Thesis 2 was to investigate what top management can do to help its employees develop entrepreneurial qualities and the professional identity that contributes to a digital transformation.

2.1 Research Design

For Thesis 2, the Delphi method was well-suited for data collection. The Delphi method works particularly well when the goal is to improve understanding of solutions and opportunities (Skulmoski, Hartman, & Krahn, 2007) and when bridging research and practice (Fish & Busby, 1996). The method enabled to formation of a reliable consensus without bringing experts together physically (Fish & Busby, 1996; Okoli & Pawlowski, 2004), which was particularly convenient during the Covid-19 outbreak. The preliminary results of Thesis 1 were provided to the participants to use as input and insights for developing the recommendations.

In this method, the group communication process was structured in an effective way, which allowed a group of individuals to deal with a complex problem as a whole. Feedback of individual contributions was collected, and an assessment of the group view was performed whilst the degree of anonymity of responses was obtained.

2.2 Participants

The participants of Thesis 2 were employees in a managing position, involved in one of the 27 prescribed municipalities coping with a digital transition. The participants were selected based on their relevance as 'experts' for this study, having in-depth knowledge about the digital transition or change management (Table 2).

The final group of experts is a mixture of people who were involved in the focus groups and people who were not. If people had participated in the focus group, the relevance, and profoundness of their contributions during the focus group were considered as a selection criterion.

Table 2.

Description participants Delphi method.

	Gender	Function	Municipality
1	m	Advisor information management	Enschede
2	v	Sr. Functional management	Zwolle
3	m	Strategic Advisor Information Management	Roermond
4	v	Advisor e-Services & Business-oriented Working	Oost-Gelre
5	v	Advisor services / change management	Rotterdam
6	m	Director of Information Provision / Project leader rationalization & harmonization	Nissewaard
7	m	Information advisor	Oldambt
8	m	Team leader	Emmen
9	m	Advisor information management / i-Advisor	Oldenzaal
10	m	Strategic information manager	Groningen
11	v	Information manager / Architect IV	Nissewaard
12	m	Information manager	Assen

2.3 Instrument & materials

The data collection instrument can be found in Appendix F. Each questionnaire started with an opening statement as informed consent. The data collection instrument was based on two questions, of which question 1 was for the first two phases and question 2 for the last two phases.

1. What managerial factors can contribute to the development of the necessary qualities/role of employees in the digital transformation? (e.g., what should they encourage, provide, assist in, or mobilize)
2. What practicable suggestions would you give to management when helping its employees to develop entrepreneurial qualities to make the digital transition successful?

The data was collected in online surveys via the tool Qualtrics, and the surveys were distributed via e-mail. A closing-off session was organized with the participants to discuss and validate the outcome. Based on the validation, comparable recommendations were merged.

2.4 Procedure

The participants for Thesis 2 were reached out to via e-mail. In the e-mail, a short explanation was given of what the study entails, what its value is, and what would be expected from participants. The goal and procedure were summarized in an image for clarity (Appendix G). If the potential participants expressed to be interested in participating, they were included in the

group of experts. The overall data collection of the questions took place in a time span of four weeks between 8 March and 1 April, with each week focusing on a different questionnaire.

The strategy of the Delphi method, based on the steps of Okoli & Pawlowski (2004), was as follows. First, conclusions of the focus groups from Thesis 1 were provided by the researcher in a video presentation to explain the expected changes and the changing qualities/role of employees in this context. Second, an open question was given to gather managerial factors regarding the central topic to identify important themes, being largely subjective. Third, the researcher compiled a summary of the outcome by removing duplicates and merging corresponding factors and shared it with the experts. The identified factors were tested using a quasi-experimental design to verify their relevance, which was more objective and aimed to provide more solid directions for phase four. Fourth, the final list of factors was shared with the experts. With these factors, experts were asked to form practicable recommendations for management to address the final question. From these recommendations, duplications were removed and, if possible, merged. Fifth, the experts were asked to rank the practicable recommendations of all participants. This compiled a list of the 15 most important practicable suggestions that should be considered by management. An overview of the process can be found in Table 3.

2.5 Data processing and analysis

The outcome is presented as much as possible in the language of the respondents, rather than shrouded in theory. This contributes to bridging the gap between research and practice, as the interest level is usually higher when the people using and reading the outcome use the same type of language as the authors. (Fish & Busby, 1996)

Per round, the results were bundled to compile a list representative of the input. For rounds 1 and 3, some contributions were merged if the essence matched, and double contributions were deleted. For the recommendations, an independent party was consulted to make sure no recommendations were mistakenly merged or deleted, to prevent bias by the researcher and enhance validation. For round 2, factors selected to be important by over 50% of experts were retained and put in round 3. For round 4, an overview of the recommendations based on overarching themes was sent to the participants to ease the process of ranking. The highest-ranked recommendations were retained to compile a final list. This was realized by giving scores to the recommendations depending on their ranking.

In the plenary session, the final list of managerial recommendations was discussed. Notes were taken by the researcher to use as a validation for the outcome and possibilities for the next steps to take the recommendations to a higher level were discussed.

Table 3.

The strategy of the Delphi process.

Phase	Tasks	Specifics
1. Brainstorming	Treat experts as individuals, not a panel	12 Experts
	1.1 Round 1: Ask experts to answer the open question (i.e., related to management factors)	1 question
	1.2 Consolidate the answers by structuring responses, removing exact duplicates, and unify terminology.	24 items
	1.3 Refine the list of factors.	
2. Narrowing down	Treat experts as a panel.	11 Experts
	2.1 Round 2: Send the complete list to each expert. Each expert scores the factors on a Likert Scale according to their importance.	5-point Likert Scale
	2.2 Retain factors selected to be important by over 50% of experts. Make a final list of the most important items.	12 Experts
	2.3 Round 3: Ask experts to form recommendations for management based on the remaining factors.	1 question
	2.4 Make an overview of the recommendations.	10 items
		31 statements
3. Ranking and practicable suggestions	3.1 Round 4: Share the recommendations with the experts. Ask the experts to rank the recommendations according to their importance.	12 Experts
		15 Practicable suggestions
	3.2 Make the final list of most important recommendations based on the rankings. Share the final result of consensus.	
	3.3 Plenary session to share, discuss and validate the outcome	

3. Results

3.1 Round 1 & 2: Managerial factors

For round 1, factors were submitted by the participants. A total of 46 factors was submitted of which 24 were left after merging and deleting double factors. These 24 factors can be found in the left column of Table 4. In round 2, participants rated the importance of each factor. The outcome of the rating can be found in the right column of Table 4.

Table 4.
Analysis of factor ratings.

Factor	Percentage of agreement
Communication about the why and importance	82%
Clear vision and action plan	68%
Customer focus	68%
Quality of service	68%
Develop digital skills (personnel)	59%
Set up change management plan	59%
Motivate employees	59%
Space and time available	55%
Focus on digital self-reliance	55%
Building knowledge of common ground	55%
Investing in management of links / integrations	50%
Course stability	50%
Municipal interest over team or departmental interest	50%
Approach corresponding suppliers jointly (for converting links to APIs)	45%
Set ease of use as the main goal	41%
Room for input of your own quality	41%
Share and scale best practices	41%
Making new work alongside the existing	41%
Role-aware	36%
Create unambiguous image (association image)	36%
Retrieving employee experiences	32%
Indication of desired control information	27%
Ensuring that everyone has the same level of knowledge	23%
Rich in initiative	18%

This analysis led to a final list of ten factors, marked in grey.

3.2 Round 3 & 4: Managerial recommendations

For round 3, recommendations were submitted by the participants based on the 10 final factors. A total of 47 recommendations was submitted of which 31 were left after merging and deleting double recommendations. These 31 recommendations can be found in Table 5.

As can be seen in the table, themes (in grey) were added to the list of recommendations to segregate the list of recommendations. This was done to ease the process of ranking for the participants. The themes are only globally based on topics and not a deeper analysis.

Table 5.

List of submitted recommendations according to themes, after merging and deleting doubles.

Building knowledge about Common Ground & the why / importance:

1. Explain clearly why and what the importance of Common Ground is and act accordingly. Take your employees along in the entire process and explain when you can / should change your choice.

2. Explain clearly why Common Ground was chosen. Include it in the architecture principles / internal policy and test it in innovations, such as tenders for new IT systems.

3. Communication about the why and importance: Draw up a communication plan in which all employees within the municipality are discussed (at least) monthly about the goal and progress of the transition process. The importance for the municipality (internal / residents / companies) must be clear.

4. By building up knowledge in organizations about Common Ground, it becomes clear why this development is important in order to be able to continue to guarantee good services in the future.

5. Develop a clear picture for your own organization of which current problems / bottlenecks CG solves so that you can tell that story.

Communication

6. Provide a clear and understandable communication strategy towards the organization. Explain why we do this (improve the quality of services by setting up systems more efficiently / effectively) and be realistic in what it takes to achieve this (digital skills, action plan and space / time for colleagues involved). And keep repeating this throughout the transition.

7. Draw up a communication plan so that employees are involved in the transition in a timely and appropriate manner. Zooming in on the transition process, transferring knowledge and transferring the vision.

8. Communication and transparency are paramount in this (and any other) transition. Both before / at the start and during the transition.

9. Clear, simple language: if it is too complex to explain, you do not understand enough yourself.

10. Share successes from Common ground and four milestones.

11. Think about how and what is needed in your specific situation: Gemma / VNG / best practices can help but this should be mastered, not as a checklist.

Digital skills

12. Make digital skills / self-reliance and customer focus a serious part of the profile of every civil servant. Make both topics a concrete part of the conversation cycle / conversations between manager and employee (and managers mutually, both also apply to themselves). Based on this, look at what is useful / necessary in training. Incidentally, I think for both subjects it mainly concerns attitude / behavior and not so much knowledge and skills. Awareness, ownership / responsibility and curiosity yield many times more than a button course of a new system.

13. Given the digital transformation that we have been part of for quite some time and given the expectations in the future, it is necessary to offer employees the opportunity to further develop their digital skills.

14. Digital skills. Start a process where employees can test themselves which digital skills they can improve. It is important that management makes space and money available for this.

15. Organize sessions aimed at sharing experiences and learning about digital skills

16. A good and active training platform also makes a huge contribution

Clear vision & action plan

17. Clear vision, action plan and image of the roadmap. Determine direction: Knowing where you want to go.

18. Clear vision: Make a clear plan where we want to be in terms of service provision (e-suite / BZM). The vision / documents that are now available are too technical to motivate / involve many employees.

19. As management, stick to relevant (policy) principles in this transition. For example, 'standard unless', resist the urge for endless customization. What are the core functionalities we all need? And if something is workable for municipality X, why not also for municipality Y?

Change management plan

20. Setting up a change management plan

21. Supplement project teams with a colleague who understands change management

22. Real change / change is difficult to plan. In terms of planning, ensure a good implementation / migration and availability of capacity / quality (tension field going concern tasks vs incidental tasks such as this transition)

Quality of services / involving residents

23. Quality of service: It is important to regularly share customer experiences with employees. What do they find important, what do they think is going well and what can be improved? (Related to transition / new design). Important to communicate about that.

24. Customers / citizens ask for input. For example: Put together a customer panel that twice a year conducts an independent assessment of the digital services for the products that use ZGW and BZM.

Participation of employees

25. Motivate employees. If you want to motivate employees, you must address them about their own sense of utility / necessity. It is important that managers regularly raise the transition in personal conversations.

26. Convince the workplace to go along with the transition by attaching it to a higher goal, for example the quality of the service. Also let the work floor experience directly that they can influence quality.

27. Employees who participate must be given space and time for this and not " do it extra "

28. Whether the technology is ultimately great or not quite, the people make the biggest difference and make it succeed (or not). That is why attention to communication and attitude / behavior / skills among employees is even more important than functionalities and implementation

29. Arrange it (control): place responsibilities where they belong but keep control. Everyone has the right to control to a certain extent (in a positive sense). And ... arranging is not just doing it yourself ...

30. Organize a moment every six months with the organization (work floor) to look back at the steps that have been taken. State what has changed, in work agreements and in technology.

31. Invest in your i-organization. More time / capacity for i functions.

In round 4, the experts ranked the 31 recommendations based on importance, of which the top 5-outcome is the following. As can be seen, the first three recommendations are in line as they all regard communication about the why and importance. They have slight nuances of focus, such as strategy, realistic steps and repetition (number 1), a communication plan in which employees are involved regarding the goal and progress (number 2) and to act accordingly and explain changes in the process (number 3). From the final ranking, the recommendation prioritized as number 1 is regarded most important and the number 1 priority to focus on.

1. Provide a clear and understandable communication strategy towards the organization. Explain why we do this (improve the quality of services by setting up systems more efficiently / effectively) and be realistic in what it takes to achieve this (digital skills, action plan and space / time for colleagues involved). And keep repeating this throughout the transition.
2. Communication about the why and importance: Draw up a communication plan in which all employees within the municipality are discussed (at least) monthly about the goal and progress of the transition process. The importance for the municipality (internal / residents / companies) must be clear
3. Explain clearly why and what the importance of Common Ground is and act accordingly. Take your employees along in the entire process and explain when you can / should change your choice.
4. Develop a clear picture for your own organization of which current problems / bottlenecks CG solves so that you can tell that story.
5. Make digital skills / self-reliance and customer focus a serious part of the profile of every civil servant. Make both topics a concrete part of the conversation cycle / conversations between manager and employee (and managers mutually, both also apply to themselves). Based on this, look at what is useful / necessary in training. Incidentally, I think for both subjects it mainly concerns attitude / behavior and not so much knowledge and skills. Awareness, ownership / responsibility and curiosity yield many times more than a button course of a new system.

3.3 Plenary validation session

Finally, in the validation session, the outcome of 15 recommendations was discussed. All participants concluded that, based on the outcome, it can be acknowledged that communication is thus the most important theme. Nevertheless, the balance among themes seemed not well distributed and participants thought the other themes that are not in the final list should not be

neglected. Therefore, the participants advised to use the list of 31 recommendations and make use of the list on a thematic level, with a special focus and emphasis on communication.

Concerning the next steps, the participants think the recommendations could best be connected to the system's implementation plan (i.e., enrollment of the technology) and put in a roadmap. Most importantly, it was believed that a communication plan should be set up as quickly as possible, to be able to involve employees as early as possible in the digital transformation process to prepare the work floor for the approaching change.

3.4 Key underlying patterns

Due to the advice of the experts to use the complete list of 31 recommendations, it is more helpful and of added value to find the key underlying patterns that are subject to the list. This prevents the list from being rather fragmented and finds the main areas for the organizations to focus on. The assigned themes based on the recommendation's topics will be used as a directive for this.

The first underlying pattern that can be recognized is one of *naïve communication.* The recommendations that are currently under the theme 'Communication' are focused on communication of information or boundary conditions such as the type of language to use. However, focusing on communication as negotiating about the meaning of information takes a different perspective. Accordingly, the themes of 'the why and importance of Common Ground', 'a clear vision and action plan', 'change management plan', 'participation of employees' are related. This naivety in communication shows that the organizations at which the experts are employed find a challenge in effective communication towards employees. This pattern is the biggest of all three and should be reduced by means of the recommendations and finding a level to improve communication in the organization.

A second underlying pattern is that of *value creation*. This pattern can mostly be recognized in the themes 'quality of services and involving residents' and 'the participation of employees'. On the one hand, the clear focus on customers (being residents), their experience and wishes, and on the other hand the focus on employees who are affected by the digital transformation.

A third underlying pattern is the *new employee qualities/profile*. This pattern relates to the themes 'Building knowledge about Common Ground' (recommendation 4) and 'Digital skills'. As can be seen in the recommendations, training is an important recurring topic, and suggestions for change in qualities are made (i.e. digital skills, self-reliance, and customer focus) to be integrated into the employees' profile.

4. Discussion

4.1 Scientific implications

In the results, a final list of recommendations is constituted for management to be able to guide employees through a digital transformation, but also to help them develop an entrepreneurial professional identity and the according qualities. This type of identity is believed to contribute to the success of a digital transformation. First, the relation of the outcome to the entrepreneurial professional identity is analyzed and shortly discussed. Second, relations will be made to literature concerning the list of recommendations and leadership. The key underlying patterns, *naïve communication, value creation, new employee qualities/profile,* are taken into account throughout the discussion.

4.1.1   Relation recommendations and entrepreneurial professional identity

When analyzing the results, clear connections can be made between the concluded entrepreneurial professional identity of Thesis 1 and the recommendations. One of the identified key underlying patterns is *value creation*, which was one of the aspects of the entrepreneurial professional identity. Digital skills were also a main part of the identity profile, which recurs throughout the recommendations and is part of the key underlying pattern of *new employee qualities/profile*. This pattern is one on one related to the newly developed entrepreneurial professional identity, as a new employee profile and qualities were found to be highly important in the digital transformation (Thesis 1).

Communication, a clear vision & action plan, and knowledge about why and the importance of the transformation have been assessed as the most important themes in the final list of recommendations. To be able to well guide employees throughout the digital transformation, and to be able to develop the contributing qualities (and entrepreneurial professional identity), much emphasis should be on these recommendations. A communication mix corresponding to the situation in the organization and identification level of employees with the desired identity should be offered. The means of communication to involve employees in a digital transformation varies and should be appropriate for each employee, especially taking their identification level into account (Linke & Zerfass, 2011). The scholars state that targeting employees based on this identification level enhances the effectiveness of communication. For internal communication, the desired innovation philosophy should be transmitted through specified messages, as employees undergo different stages in the process of dealing and changing before they take action. By incorporating a certain 'spirit of innovation', a certain innovation climate and culture is offered (Linke & Zerfass, 2011). Subsequently, providing

such an organizational climate or culture, the environment may motivate employees into the direction of an entrepreneurial professional identity.

Management needs to prepare for resistance to the change and minimize the posed threats to self-concepts by well-guiding employees into the change. This is because change generally will be supported if the change is conforming with employees' self-concept (Eilam & Shamir, 2005), but a conflict with employees' self-concept will occur as a substantial change towards entrepreneurial professional identity needs to take place. Therefore, management could, for instance, present the change as opportunities for self-enhancement and self-expression.

4.1.2   Entrepreneurial leadership

Many relations between different entrepreneurial leadership roles of McGrath & MacMillan (2000) compared to the recommendations can be made, as can be found in Table 6. First, *framing* is a role focused on pushing the team towards limits of abilities, whilst maintaining the balance to not push them over their limits. Six recommendations relate, such as "*Make digital skills / self-reliance and customer focus a serious part of the profile of every civil servant. Make both topics a concrete part of the conversation cycle / conversations between manager and employee (and managers mutually, both also apply to themselves). Based on this, look at what is useful / necessary in training.*" (ranked 5th). In this recommendation, you find the aspect in which employees have to develop, but the conversations and analysis of what is necessary for education make sure employees are not pushed over their limits.

Second, *absorbing uncertainty* relates to a clear vision enacted by employees whilst taking responsibility. One theme is dedicated to recommendations relating to creating a clear vision and & action plan. Uncertainty effects are considered, and confidence is built in management to act according to the vision. For instance, by having personal conversations with employees,

Table 6.

Comparison of literature leadership roles to recommendations.

Leadership role	Recommendations that relate
(McGrath & MacMillan, 2000)	(numbers according to Table 5)
Framing	12, 13, 14, 21, 27, 31
Absorbing uncertainty	5, 17, 18, 19, 25, 29
Path clearing	6, 23, 24, 27, 30
Building commitment	1, 13, 24, 25, 27
Specify limits	1, 12, 13, 26, 27, 28

get a clear image of the current problems and bottlenecks, and sticking to relevant (policy) principles in this transition.

Third, *path-clearing* relates to management negotiating with the external as well as internal environment. Gaining support from key stakeholders and eliminating obstacles to accomplish the goal are key aspects. The theme of involving residents focuses directly on external stakeholders, for instance, setting up a customer panel and share these experiences with employees. The latter relates to the internal environment as well, for which the theme 'participation of employees' is central. Such as, building in moments to reflect on the taken steps, which subsequently could eliminate obstacles.

Fourth, *building commitment* is related to the use of team-building skills to inspire a team to accomplish a described scenario. This role related mostly to the motivation of employees to be committed to the transition and convincing employees about the higher purpose, but also to involve employees in the complete process. The development of digital skills could also be considered as building commitment, as considering it as a key necessity may inspire and convince a team of the relevance of their contribution and skills to the change.

Fifth, *specify limits* relates to sustain and hold commitment as opposed to setbacks, so perceptions of capabilities are reshaped by the elimination of certain ideas of limitation. This accordingly facilitates creativity. By the involvement in the complete process (on positive aspects as well as failures), acceptance and commitment can be built. An important aspect is providing space and room for employees, by which creativity can be fostered. As stated in one of the recommendations, a focus on the capabilities and behavior of employees is more important than the implementation itself, for which it could be beneficial if it would reshape the perception of individual capabilities instead of focusing on limitations. Creating awareness about the responsibility an employee has in this transition and building curiosity of employees also relate to the reshaping of perception.

Thus, this research not only confirms the specified entrepreneurial leadership roles, but also finds that these roles strongly apply to the context of digital transformation when guiding employees towards an entrepreneurial professional identity. Furthermore, these leadership roles set the conditions for employees to move freely in. Therefore, not strictly leading the work floor into a straight and pre-set direction but providing the freedom and boundaries in which employees can develop themselves and are committed to the changing environment. Through these roles, employees are motivated, committed, and their path is clear and free of uncertainty to contribute utmost to the digital transformation.

4.1.3 Entrepreneurial action in the organization

Besides taking certain leadership roles, different conditions are confirmed to encourage entrepreneurial action and provide employees the ability and freedom to develop the necessary entrepreneurial qualities and entrepreneurial professional identity. These conditions are the four set conditions by Gupta et al. (2004), which can be recognized in the recommendations.

First, to encourage entrepreneurial initiative, the presence of the communication of an entrepreneurial vision is of importance. As can be seen in the recommendations, the development of a clear vision is of great importance. All participants developed the recommendations, whilst keeping the desired entrepreneurial capabilities in mind, which should thus be incorporated in the vision. A second condition is providing an environment that supports and nurtures innovation, encouraging employees in innovative thinking. A third condition is securing and generating resources and expertise, such as the recommendations focused on the development of digital skills and capabilities of employees. A fourth condition is assisting in the progress of continuous exploration and generating ideas, by which autonomous decision-making is promoted. This aspect of autonomous initiative-taking and experimentation is an important aspect in the entrepreneurial professional identity profile and is somewhat related to the recommendations by the involvement of employees but not greatly emphasized.

4.1.4 Communication in change innovation

As can be concluded based on the final list of recommendations, communication is one of the most important ranked and recurring themes and naïve communication was a key underlying pattern. As discussed in the results, throughout the themes, many communication-related aspects occur.

Innovation processes in organizations, such as digital transformation, should be supported by good communication management. Communication is ought to play a role in promoting innovation management as a crucial process (Zerfass & Huck, 2007). The scholars state that this should be achieved by a new understanding of leadership communication. Through the recommendations, such leadership communication is defined. For instance, what leaders should realize, think of and ensure. As such, it is proven in this research that communication plays a key role in leadership related to digital transformation and innovation, shifting boundaries of traditional leadership roles.

Incorporating the dimensions of Zerfass & Huck (2007), it is clear from this research that management has to act as being communication promotors in a digital transformation, therefore going beyond the traditional concept of leadership. The scholars propose a new role of

leadership communication on innovations by combining social, affective, cognitive, and conative dimensions, which all can be recognized in the resulting recommendations. First, the *cognitive* aspect can be recognized by the expectancy of the employees that management is aware of the background of the digital transformation, technologically as well as organizationally. Thus, "knowing about an innovation" (p. 119), such as concrete applications and managing benefits for and interactions with followers. The recommendations in the first theme (i.e., Building knowledge about Common Ground & the why and importance) all relate to this. For instance, the recommendation "*By building up knowledge in organizations about Common Ground, it becomes clear why this development is important in order to be able to continue to guarantee good services in the future*" (ranked 8th). Second, the *affective* dimension focuses on leaders motivating employees to share their own visions on an innovation. Employees wish to be openly involved and to be aware of the vision on innovation, which is a concrete recommendation for management to fulfill and share. For instance, the recommendation "*Draw up a communication plan so that employees are involved in the transition in a timely and appropriate manner. Zooming in on the transition process, transferring knowledge and transferring the vision.*" (ranked 7th). Other relations of recommendations with this dimension are the interaction with feedback and positive surroundings by sharing best practices. Third, the *conative* dimension can be recognized in the recommendations focused on motivating employees to participate in the process and be involved in managing relations with external stakeholders (i.e., the themes Participation employees and involving residents). The key theme here is for management to allow employees to contribute. Other relations are encouragement, freedom, and reciprocity. Fourth, the *social* dimension relates to leaders communicating about the innovative spirit. This refers to the organizational climate, culture, and employees incorporating a certain 'spirit of innovation'. This last dimension is integrated throughout the recommendations by a certain climate that needs to be created and offered.

Taking these communicative leadership roles into account in such an innovative environment, the identification phases when adopting the entrepreneurial professional identity should also be taken into account. According to Linke & Zerfass (2011), communication managers should lead employees through phases of identification to promote such a 'spirit of innovation' or innovation culture. The reasoning for this is that employees are important sources of innovation, implying the value of an innovation culture. For instance, as can be seen in one of the recommendations stating "*Whether the technology is ultimately great or not quite, the people make the biggest difference and make it succeed (or not). That is why attention to*

communication and attitude / behavior / skills among employees is even more important than functionalities and implementation". The scholars emphasize the key importance of internal communication, as this plays a central role in being or becoming an innovative and creative business.

Besides innovation culture and pioneers, employees can also fall into disadvantageous categories. These are refusal, standstill, and mediocrity. "Managers should improve on providing these employees with the feeling that they work in an innovative environment as stated in the company's mission." (Linke & Zerfass, p. 344). As related to many recommendations, employees should be allowed to participate, get space and time for adapting, and a certain level of responsibility. The vision should be well communicated and transferred, to make sure these groups, too, understand the necessity and feel that the innovative environment complies with the vision.

As such, not only for opposing employees, communication plays a broader role and should facilitate the potential in such complex dynamic settings as digital transformation, for which collaboration, involvement, and participation are important themes. This aspect is clear by the emphasis on employee and customer involvement in the process. Leeuwis & Aarts (2011), too, conclude that innovation involves the contextual re-ordering of relations and considers innovation a collective process. They argue the importance of communication in innovation development, rather than striving for a predefined change.

4.2 Practical implications

This research can be of practical use for management of organizations that find themselves in a digital transformation. As found in literature, most research and organizations focus on the technical aspects and implementation of a digital transformation but are lacking in their focus on employees and the work floor. The outcome of this research can be specifically used by management to guide employees well in a digital transformation and to encourage the development of entrepreneurial qualities.

4.3 Limitations

Notwithstanding the contributions of the research to theoretical and practical knowledge, the research had some limitations. For instance, during data collection, one of the 'experts' missed one questionnaire. Originally, the expert would be excluded from the data collection. However, due to the expert's experience and knowledge about change management, it was decided to include the expert in the following questionnaires.

During the data collection, it was difficult for the researcher to determine what recommendations could be merged, as experts might notice distinctions and nuances in their contributions. These nuances were difficult to interpret. Therefore, an independent party was involved to counter this limitation to a certain extent.

Furthermore, the large number of recommendations in round four made it difficult for the experts to differentiate between the recommendations during the ranking. Therefore, an extra session was organized to validate the outcome.

And finally, it was noticed that not all participants looked at the phrased question closely, which lead to participants selecting and entering responses leading to what they believe is important in the context, rather than contributing to the goal of the question. Some participants expressed their confusion because of these not-relating factors and recommendations.

4.4 Future research

Research providing an overview of strategic paths that can be taken to become a digital provider shows that the final stage can be achieved through the development of digital enhanced products and based on that, developing an ecosystem around it, involving the adapted business models (Planing & Pfoertsch, 2016). Such development of a digital ecosystem is one of the main findings for organizations to prepare for a digital transformation (Weill & Woerner, 2015). Hence, the results of this research can be used as input to develop an ecosystem, in which the employees' role and qualities are ought to be highly acknowledged as it influences the success of a digital transformation.

Furthermore, despite the emphasized importance of the theme 'communication' in the final list of recommendations, there is little research conduction about communication in a digital transformation. Therefore, due to its importance, it is recommended to conduct research about, for instance, communicative strategies in a digital transformation.

5. Conclusion

This research has shown how top management can help its employees to develop entrepreneurial qualities and -professional identity that contribute to a digital transformation. A list of 31 recommendations was compiled, for which naïve communication, value creation and new employee profile/identity were found to be the key underlying patterns. These recommendations can be applied by organizations in a digital transformation, through which an innovative organizational culture and the facilitation of entrepreneurial action by employees can be realized. These aspects are considered valuable in the context to provide employees the opportunity to develop entrepreneurial qualities and an entrepreneurial professional identity.

Based on the final ranking of the recommendations, it was shown that communication is the most important theme to focus upon during a digital transformation. The proposed role of leadership communication on innovation in literature focused on combining social, affective, cognitive, and conative dimensions, is shown to be effective in the context of digital transformation. Incorporating these dimensions, it is clear that management should act as being communication promotors, therefore going beyond the traditional concept of leadership. Furthermore, it is recommended to offer a communication mix corresponding to the situation in the organization and identification level of employees with the desired identity. The means of communication to involve employees in a digital transformation varies and should be appropriate for each employee, especially taking their identification level with the entrepreneurial professional identity into account. Targeting employees based on this identification level enhances the effectiveness of communication, as employees undergo different stages in the process of dealing and changing before they act.

Throughout the list of recommendations, the entrepreneurial leadership roles of framing, absorbing uncertainty, path clearing, building commitment, and specifying limits were highly recognized. As such, entrepreneurial leadership can be considered a great contribution to guide a work floor in the context of digital transformation and encourage entrepreneurial action of employees. Through these roles, leaders provide the boundaries as well as freedom in which employees can develop themselves entrepreneurially and adopt the entrepreneurial professional identity, whilst being committed to the changing digital environment.

General reflection

Both theses have been conducted in the context of digital transformation. One thesis focused on the employee perspective considering qualities and professional identity and the other thesis focused on the management perspective on well-guiding employees through the transformation. In this section, I will reflect on the outcome of both theses, what the gained implications and contributions to the theoretical field are in this context.

Entrepreneurial qualities and conditions for action

From the findings in both theses, it can be concluded that entrepreneurial qualities and entrepreneurial action are valuable in the context of digital transformation. It is recommended that such qualities are incorporated for employees in this context, which accordingly will contribute to the succession of a digital transformation.

In the thesis focused on the management-perspective, different conditions are confirmed to encourage entrepreneurial action, which are important to provide employees with the ability and freedom to develop the necessary entrepreneurial qualities and entrepreneurial professional identity. It is of great value for management to provide an environment that supports and nurtures innovation whilst allowing the employees to generate the necessary skills to be able to develop the right qualities. Whilst the qualities entail autonomy, management is ought to assist in the progress of, for instance, autonomous decision-making, idea/opportunity-seeking and initiative-taking. Besides these conditions, the presence of communication of an entrepreneurial vision not only supports entrepreneurial action but is a key theme in the recommendations, which we will get back to later.

Entrepreneurial professional identity & entrepreneurial leadership

In this research, a new profile for an entrepreneurial professional identity and a framework for its formation process have been developed. In the current theoretical field, the dynamics of entrepreneurship in identity are considered complex and should be better understood to understand how actors behave in entrepreneurial contexts. The developed framework contributes to this and, therefore, complements the current field. In the framework, not only the entrepreneurial identity profile itself is considered, but an identity formation before the transition (i.e. organization personification through identity) and after the transition to alter the self-concept according to the identity (i.e. the process of becoming vs. being) and the creation of socialization strategies (i.e. enacting models of social change) too. This is unique in the field.

The sections in the identity profile to which the qualities comply (i.e. value creation, autonomy of the employee, acceptance of the risk to fail/innovativeness, adaptability, and

digital skills) find alignments with the underlying patterns in the recommendations for management. As the recommendations were aimed at facilitating the development of the necessary qualities, this is a recurring underlying pattern. Additionally, value creation is an important aspect and theme in the context of digital transformation as a whole, whilst also being a key aspect in the profile ánd a pattern in the recommendations, striking its importance.

Complementing the entrepreneurial professional identity of employees, entrepreneurial leadership is proven to highly contribute to the context of digital transformation. In brief, from the theoretical field, the roles taken in entrepreneurial leadership are: Framing, absorbing uncertainty, path clearing, building commitment, specify limits. This research not only confirms the existence specified entrepreneurial leadership roles, but also finds that these roles strongly apply to the context of digital transformation when guiding employees towards an entrepreneurial professional identity. Furthermore, these leadership roles set the conditions for employees to move freely in. Therefore, it is a way to provide the freedom and boundaries in which employees can develop themselves and are committed to the changing environment. On the one hand, through these roles, employees are motivated, committed, and their path is clear and free of uncertainty to develop themselves towards the desired entrepreneurial professional identity and contribute utmost to the digital transformation. On the other hand, it also fits the diverse and dynamic environment of digital transformation. Employees need to adapt to the rapidly changing environment and find their own way to do so, and can immediately adopt new qualities of adaptability, innovativeness and autonomy.

Confronting naïve communication

It has been shown that in the context of digital transformation, naïve communication is a substantial underlying pattern. Innovation processes in organizations, such as digital transformation, should be supported by good communication management. It is proven in this research that communication plays a key role in leadership related to digital transformation and innovation, shifting boundaries of classical leadership roles. Incorporating these dimensions, it is clear management has to act as being communication promotors, therefore going beyond the traditional concept of leadership.

To accomplish this and make use of the recommendations well, it is important to offer a communication mix corresponding to the organizational situation and identification level of employees with the aforementioned desired identity. Specifically, a means to involve employees should be integrated, which complies with the qualities of increased responsibility and involvement in decision-making to accomplish autonomy of the employee. To enhance

effectiveness even further, the identification phases when adopting the entrepreneurial professional identity should be taken into account. For instance, for internal communication, the desired innovation philosophy should be transmitted through specified messages, as employees undergo different stages in the process of dealing and changing before they take action. Within this, a subtle difference exists between being or becoming an innovative business, complying with the employees' individual struggle in the identity formation process of becoming, instead of being. Subsequently, providing such an organizational climate or culture complying with the identification level, the environment may motivate employees into the direction of an entrepreneurial professional identity and enhance the formation process.

The rapidly evolving context of digital transformation
It can be questioned how unique this research is for digital transformation. Without a doubt, the results can be applied to digital transformation and digitalizing companies, as this was the context the research was conducted in. However, it seems that the results could be applied for other types of innovation as well. Especially considering the theses both being future-oriented, it has been difficult for participants to see and state what is 'solely' relevant for digital transformation. Differences between regular innovation seem unclear for participants and should be further investigated to make a clearer distinction in this field. Nevertheless, this also makes the application and use of the results also a lot wider oriented, and possibly increasingly interesting for organizations to consider.

For the identified shared values and beliefs constituting the identity, many are dependent on the working context or the (cultural) context of change. Hence, Entrepreneurial Professional Identity is affected by organizational and contextual influences, rather than being a stable factor. On the one side one finds the entrepreneurial processes that are less bounded and fluent in nature. Structural boundaries for entrepreneurial outcomes are continuously shifting, whilst the temporal and spatial boundaries for its processes are too. On the other side, due to the rapid digital changes across industries, the working context and (cultural) context of change are less bounded too. Taking these both sides into account, it is important to consider that entrepreneurial opportunities are infused with digital technologies, and employees are ought to adapt flexibly to the rapid changes. Thus, taking the contextual influences of digital transformation (or innovation, for that matter) and entrepreneurial socialization influences into account, 'entrepreneurial professional identity formation' can be considered a dynamic interplay between external contextual prescriptions and internal entrepreneurial aspirations and processes.

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Appendix

Appendix A. Data collection instrument focus groups

1. Introduction & practice with Miro
    1.1 An image of [name]
    1.2 How do you feel about working at home?
2. Theme 1: Identity
    2.1 What does work at the government mean to you?

3. Theme 2: Changing practices
    3.1 What changes on the work floor do you expect from the transition? (E.g. in ways of working)
    3.2 For whom will the transition bring a lot of change?
        3.2.1 What does this mean? How will this affect their work
4. Theme 3: Qualities, mindset and characteristics
    4.1 What qualities do you believe to be important for employees (at municipalities) to have?
    4.2 What qualities do you expect after the transition to be of great importance to the organizational effectiveness of a digital transformation?
    4.3 Do you believe the following qualities to be important after the transition? Discussion.
        4.3.1 Risk-taking
        4.3.2 Innovative
        4.3.3 Creative
        4.3.4 Proactive / initiative-taking
        4.3.5 Increased responsibility
        4.3.6 Autonomous
        4.3.7 Involved in decision-making
        4.3.8 Idea/Opportunity-seeking
        4.3.9 Acceptance of the risk to fail
        4.3.10 Understanding of the technology

Notes to researcher to keep in mind during discussion:

- How aware are they of their professional identity and qualities?
- What do they really think of the changing practices? That could have influence on their self-understanding as a professional.

Appendix B. News publication article for research awareness and webform

Onderzoek naar digitale transformatie: hoe zorg je ervoor dat digitale veranderingen succesvol verlopen?

In een wereld waar dagelijks nieuwe technologieën ontstaan, is digitalisering een onderwerp waarmee veel gemeenten voortdurend te maken hebben. Hoe zorg je ervoor dat digitale veranderingen succesvol verlopen?

Om gemeenten daarbij te helpen, vindt er de komende maanden een onderzoek plaats binnen onze vereniging. Het onderzoek gaat over digitale transformatie en wordt uitgevoerd door een masterstudente van de Universiteit Twente. Het onderzoek levert naar verwachting waardevolle organisatorische inzichten op om de migratie van e-Suite en BZM naar Common Ground gebaseerde componenten goed te laten verlopen.

De aanleiding van het onderzoek

Omdat het contract van het zaaksysteem e-Suite per 1 juli 2023 afloopt, vindt er een digitale transitie plaats voor 27 van 40 Dimpact-gemeenten. De resultaten van het onderzoek geven gemeenten handvatten om de digitale transformatie op de werkvloer beter te sturen. Hierdoor kunnen werknemers een grotere rol en invloed krijgen op het succes van de transitie, worden ze beter meegenomen in de verandering en kan er nog meer waarde gehaald worden uit het nieuwe systeem van Common Ground gebaseerde componenten.

Over digitale transformatie

Bij een digitale transformatie worden niet alleen producten en processen beïnvloed, maar ook de organisatiestructuur. De zogenaamde 'warme kant'. Over het algemeen wordt er in beperkte mate rekening gehouden met de invloeden van de digitale transformatie op de werkvloer en vice versa. Terwijl een transformatie leidt tot nieuwe arbeidsbehoeften waarbij de manier van werken moet worden aangepast. Dit vraagt mogelijk om een verandering in de rol, professionele kwaliteiten en mindset van werknemers. Aspecten die met dit onderzoek onderzocht worden.

Over de onderzoeksaanpak

Met een aantal gemeenten die zich in de transitie naar het nieuwe zaaksysteem bevinden, zullen focusgroepen georganiseerd worden: een soort groepsdiscussie. Aan de focusgroepen doen werknemers en bestuurders mee. In februari en maart 2021 zijn er focusgroepen. En in mei/juni zullen de resultaten gepresenteerd worden door middel van een bedrijfsrapport met praktische toepassing voor Dimpact-gemeenten. Wil je deelnemen aan een focusgroep? Vul dan het contactformulier hieronder in.

Meer informatie

Het onderzoek wordt uitgevoerd door master-afstudeerstudent Els van Uum van de Universiteit Twente. Ze wordt tijdens het onderzoek begeleid door Migiel Gloudemans. Heb je vragen over dit onderzoek? Stel ze dan gerust!

Webform to sign up:

1. Naam

2. Bij welke gemeente werk je?

3. Wat is je functie?

4. Ik wil deelnemen aan de focusgroep op…

   i. 3 februari, 10:00-12:00.

   ii. 4 februari, 10:00-12:00.

   iii. 9 februari, 10:00-12:00.

   iv. 10 februari, 10:00-12:00.

   v. 11 februari, 10:00-12:00.

   vi. 16 februari, 10:00-12:00.

   vii. 17 februari, 10:00-12:00.

Appendix C. Opening and closing statement focus groups

1. Introductie (10:00-10:05)
   a. **Verwelkom** de deelnemers, **bedanken** voor deelname
   b. **Stel jezelf voor**
   Ik ben Els, ik voer dit onderzoek binnen de impactanalyse uit, om meer inzicht te krijgen in de veranderingen op de werkvloer en de veranderende rol van werknemers in deze digitale transitie.
   c. Vraag of de **opname** gemaakt en gestart kan worden
   Graag wil ik een opname maken van de sessie, om deze achteraf te kunnen voor de resultaten van het onderzoek. Deze opname zal niet vrijgegeven worden en de resultaten zullen anoniem verwerkt worden.
   d. **Context**: Zoals jullie weten vindt er momenteel een digitale transitie plaats. **Duiding van 'de transitie'** (= de continuïteitsopgave, migratie van e-Suite en BZM naar Common Ground gebaseerde componenten)
   Afgelopen weken hebben sommigen van jullie al het een en ander met een van de regisseurs binnen Dimpact besproken, bijvoorbeeld over hoe jullie gemeente in de transitie staat en bijvoorbeeld de financiële kant. Deze focus groep zal er meer om gaan wat er zal veranderen op de werkvloer en bij werknemers, omdat geloofd wordt dat bij een dergelijke digitale transitie de rol van de werknemers vergoot wordt en hun aandeel in sterke mate zal toenemen. Ik ben benieuwd hoe jullie daartegenaan kijken.
   e. **Wat wordt er verwacht van de deelnemers**
   Wat er van jullie verwacht wordt is input over deze onderwerpen. Dus om jullie kijk te krijgen op wat naar verwachting de invloed is van de transitieopgave op de werkvloer. In kaart brengen welke veranderingen dit voor de eindgebruiker brengt, de invloed op de werkwijze en de rol en kwaliteiten van werknemers.

   Mijn rol hierin is om de discussie te begeleiden, dus niet om deel te nemen.
   f. **Uitleggen wat er met de data/input gebeurt** (anonieme transcripten en analyse)
   De resultaten zal anoniem worden verwerkt binnen het onderzoek, en zullen gebruikt worden als input om aanbevelingen te kunnen geven aan alle gemeenten voor deze transitie. Om tot deze aanbevelingen te komen zullen er wat vragenlijsten gedeeld worden met een selecte groep. Mocht je hierbij betrokken willen zijn, dan kun je dit na de focusgroep laten weten en dan zal ik meer informatie geven.
   g. **Hoeveel tijd en toelichting aanpak**
   Er is twee uur gepland voor de focus groep. Na deze introductie zullen we elkaar eerst even leren kennen en kijken of iedereen z'n weg kan vinden in Miro. Daarna zal ik een aantal vragen stellen. Via Miro kunnen jullie je gedachten op digitale sticky notes aan kunnen geven, en we vervolgens daarover in discussie kunnen gaan. De discussie is het belangrijkste deel.
   h. **Randvoorwaarden**
   De randvoorwaarden zijn uiteraard niet door elkaar heen praten, ieder ander ook aan het woord te laten want ieders mening telt, elkaar te respecteren in hun aanvullingen, ook al ben je het misschien niet met elkaar eens. Als je wil reageren op wat iemand gezegd heeft, gebruik de 'handopsteken' functie, dan weet diegene ervan, of reageer als diegene uitgepraat is. Ik wil wel aansporen om gewoon te beginnen met praten gezien we maar met een klein clubje zijn, en dus niet dat ik steeds de beurt hoef te geven om iemand aan het woord te laten.
   Alle input is welkom, dus ook al twijfel je over iets, noem het gewoon en het kan een balletje doen laten rollen. Weet dat je mening meer dan welkom is omdat het des te meer bijdraagt aan het resultaat, wat uiteindelijk ook nuttig is voor jezelf. Ik hoop dat jullie ondertussen een beetje gewend zijn aan dit soort digitale samenkomsten.
   i. Vragen of alles duidelijk is of dat er nog vragen zijn.

2. De vragen (via Miro, zie Appendix B)

2. Afsluiting (12:55-13:00)
   1. **Bedanken voor deelname**

      Dat was de focusgroep. Heel erg bedankt voor jullie deelname, het was een erg interessant en inzichtvol gesprek! Ik zal de resultaten de komende weken gaan verwerken en analyseren, de focusgroepen vinden plaats tot en met 17 februari. Tussentijds zal ik mogelijk nog een update op SAM plaatsen met de eerste inzichten, en wat de eerste indrukken waren. Ik hoop dat jullie het ook leuk en nuttig vonden.
   2. **Oproep** om dit samen te gaan organiseren en samen verder aan te pakken
   3. **Herhalen doel**: In kaart brengen welke veranderingen Common Ground voor de eindgebruiker brengt, invloed op de werkwijze en de rol van werknemers.
   4. **Doorkijk naar vervolg**: Met de input zullen in maart concrete suggesties gevormd worden die bestuurders kunnen hanteren om de transitie goed op de werkvloer te leiden. Uiteindelijk volgt een bedrijfsrapport met aanbevelingen en een webinar.

Appendix D. Transcripts & contributions on Miro notes.

Transcripts can be requested at the researcher or secretary of the COM department at the University of Twente.

Focus group 1. Miro contributions

Focus group 2. Miro contributions

Wat voor veranderingen op de werkvloer verwacht je van de transitie? (E.g. in werkwijze)

Tijdelijk twee omgevingen naast elkaar

Blijft de functionaliteit gelijk, kan achteruitgang zijn

Hou je draagvlak binnen de organisatie

Nog niet duidelijk wat er opgeleverd wordt / werkt het nieuwe precies zo als het oude

Gebruikers beleving kan mogelijk een extra punt van aandacht zijn

Dit is sterk afhankelijk van de manier waarop de transitie wordt gegeven.

Is de verandering wel zo groot voor medewerkers (niet zijnde de 'techneuten')?

Noties Veel sticky notes van groene vlak naar oranje vlak

Voor wie gaat de transitie veel veranderingen teweegbrengen?

Gebruikers

Gevolgen voor beheerorganisatie

De rol van IV architecten zal nog belangrijker worden.

Burgers

eSuite functioneel beheerders

governance dimpact

CG invoering zal alle medewerkers raken.

management

technisch specialisten voor koppelingen

ICT leveranciers

Wat betekent dit? Hoe zal dit hun werk beïnvloeden?

Tijdelijk twee omgevingen, doet wat met draagvlak en motivatie

gevoel van 'weer iets nieuws'

Dubbele systemen voor een bepaalde periode

opnieuw wennen

Ander systeem, met nieuwe user interface

productieverlies door onduidelijkheid over waar te werken

Inregelen andere governance op product/component niveau

Weer een verandering

Meer coördinatie op componenten/ koppelingen

management moet in stelling worden gebracht om het waarom uit te leggen/draagvlak te creëren

Meer beheer op technische koppelingen

nieuwe technische uitdagingen / nieuwe stof voor techniek

werken buiten de voorgeschreven systemen om

onrust/onduidelijkheid over waar te weken (tijdelijk twee systemen/omgevingen?)

oude en nieuwe situatie naast elkaar

Welke kwaliteiten zijn volgens jou belangrijk voor werknemers?

klantgericht

Open mind

Professionaliteit

Digitaal vaardig

toegankelijk

open houding

Het vermogen om procesmatig te denken en te werken

verander bereidheid

Procesmatig kunnen werken

luisterend oor

flexibiliteit

wendbaar

Digivaardig

Digitaal vaardig

Digivaardigheden medewerkers

Flexibel

flexibiliteit

procesmatig kunnen denken

nieuwsgierig

Welke kwaliteiten van werknemers verwacht je dat na de transitie van groot belang zijn voor de organisatorische effectiviteit van de digitale transitie?

Meer expertise op componenten / common ground/ architectuur

organiseren en sturen op transitie

Ownership van de dienstverlening

Gemeenten meer eigenaarschap in gegevens/data

Ownership van een proces of product

Werken vanuit/onder architectuur. niet zelf meer applicaties aanschaffen

Denk jij dat de volgende eigenschappen/aspecten belangrijk zullen zijn bij werknemers na de transitie? Waarom?

Inzicht in de technologie

Risico nemen

Innovatief

Betrokken bij besluitvorming

Creatief

Proactief /Initiatief tonen

Zoeken naar ideeën en kansen

Verhoogde verantwoordelijkheid

Acceptatie van het risico om te falen

Autonoom werken

Focus group 3. Miro contributions

Werken bij de overheid betekent...

Leuk en uitdagend: Complexe en diverse organisatie + politieke context

Dat je een steentje bijdraagt aan de samenleving

Werken zonder winstoogmerk

Prettig: maatschappelijk ipv commercieel belang. Maar: meer verzakelijking / professionalisering wel wenselijk

Uitdaging want overheidsorganisaties hebben te maken met veel veranderingen

Wat voor veranderingen op de werkvloer verwacht je van de transitie? (E.g. in werkwijze)

Nu nog steeds veel analoog werk dus zal digitaler (moeten) worden

Ik hoop ook op aanmerkelijke verbeteringen functioneel

Mogelijk dat medewerkers meer nog dan nu klantgericht/dienstgericht gaan denken

Modulair opgebouwd componenten landschap betekent dat medewerkers vaker te maken krijgen met wisselingen in de software waarmee zij werken

De werkvloer kan eerder overstappen op een software dat past bij de eisen en wensen.

gebruik maken ontwikkelingen common ground (componenten/scheiding processen en data)

afscheid eSuite-> nieuw zaaksysteem = nieuwe kansen (zaakgericht werken)

Onduidelijk wat de verwachtingen zijn. Op dit moment heb ik het gevoel dat Dimpact zelf ook niet weet wat ze precies willen.

Ik ben een voorstander van commengroudn. Heb vragen bij standaardisatie/uniformiteit dat het met zich mee kan brengen.

mijn wens is duidelijke en heldere communicatie, beter overzicht, duidelijke visie.

veranderingen daarin gaan we mee, kwestie van draagvlak creeeren, opleiden, trainen.

Minder kosten,

Voor wie gaat de transitie veel veranderingen teweegbrengen?

Iedereen :-)

Functioneel beheer, proceseigenaren, inkoop, contractmanagement, financiën, CIO, IT, MT's

Voor alle gebruikers en beheerders van de e-Suite

gehele organisatie, beheer eSuite, iBuza in bijzonder

Wat betekent dit? Hoe zal dit hun werk beïnvloeden?

Medewerkers zullen digitaal vaardiger / zelfredzamer moeten worden om flexibel in te kunnen springen op steeds meer/snellere wijzigingen

Echte automatisering en robotisering zal voor bepaalde functies/werkzaamheden ook ingrijpend iets gaan betekenen. Dat vraagt iets van de mobiliteit van medewerkers

De transitie vraagt veel afstemming, organisatiebreed, multidisciplinaire benadering.

Voor medewerkers geldt dat de digivaardigheid op de proef wordt gesteld.

Voor CIO en IT geldt dat zij een integraal beeld moet verkrijgen en onderhouden mbt welke componenten nodig zijn om de organisatie functioneel te ondersteunen.

Mindset zal echt digitaler en klantgerichter moeten worden met belangrijke rol/positie voor KCC

opleiden, trainnen, uitleg gever, draagvlak creeren, changemanagemant inzetten, duidelijk en eerlijk communiceren, wijziging in rollen/functies. Gewenning, anders werken.

twee systemen naast elkaar

Implementatie en conversie

Focus group 4. Miro contributions.

Focus group 5. Miro contributions

Wat voor veranderingen op de werkvloer verwacht je van de transitie? (E.g. in werkwijze)

- Andere taken/ processen
- DZGW was de echte grote verandering, het komende traject voegt daar nog maar weinig aan toe
- Veranderingen vooral in technische hoek
- In Rotterdam werken we met een generiek afhandelproces. Ik verwacht geen veranderingen in de werkwijze van de eindgebruikers.
- Interface en lay-out gaat er anders uitzien
- Wijziging van systeem, medewerkers instructie
- een nieuw systeem is een sijdelijke afleiding van het echte werk: de vraag van de burger op een juiste wijze beantwoorden
- Beheertaken worden anders
- Afhandelprocessen veranderen niet zo veel, mogelijk wel door techniek beter ondersteunt
- eenvoudigere ICT omgeving; daarom voor medewerkers duidelijker waarvoor we het doen

Voor wie gaat de transitie veel veranderingen teweegbrengen?

- Techniek
- Voor de gebruiker is het vooral wennen aan nieuwe hulpmiddelen
- Functioneel beheerders en gegevensbeheerders
- eigenaren van de verschillende componenten
- Contractbeheer
- functioneel beheerders
- Beheer
- Inkoop/ aanbesteding

Wat betekent dit? Hoe zal dit hun werk beïnvloeden?

- Door losse componenten meerdere leveranciers dus meer/ander contractbeheer
- Functioneel beheer meer nog meer gericht op integratie andere systemen/bronnen
- voor gebruikers: langer wachten op het doorvoeren van inhoudelijke wijzigingen bestaande koppeling wordt vervangen door nieuwe. Zij kunnen geen inhoudelijke wijzigingen doorvoeren omdat de beheerders druk bezig zijn dezelfde functionaliteit te vervangen met andere technologie.
- Gegevensbeheer meer gecentraliseerd
- Andere kwaliteiten nodig
- Minder (grootschelijke) aanbestedingen

Welke kwaliteiten zijn volgens jou belangrijk voor werknemers?

- Samenwerken (algemeen)
- producteigenaren: belangen kunnen afwegen en stakeholdersmanagement
- Procesgerichte instelling
- functioneel beheerders: communicatieve vaardigheden en empathisch vermogen
- Analytisch denken
- Klantgerichtheid
- Flexibiliteit
- Digitale vaardigheid

Welke kwaliteiten van werknemers verwacht je dat na de transitie van groot belang zijn voor de organisatorische effectiviteit van de digitale transitie?

- Medewerkers: klantgerichtheid
- Samenwerken
- FB: dienstverlenend
- Overzicht bewaren
- oren van klaar stimuleren die is ook werkt
- Techniek: dienstverlening/klantgerichtheid
- Voorbeeldgedrag leidinggevenden
- Klantgerichtheid
- Kwaliteitsgericht
- Mogelijkheden benutten
- Digitale fitheid
- Ondersteuning gebruikers
- Aanpassingsvermogen

Denk jij dat de volgende eigenschappen/aspecten belangrijk zullen zijn bij werknemers na de transitie? Waarom?

- Risico nemen
- Innovatief
- Acceptatie van het risico om te falen
- Creatief
- Proactief / initiatief tonen
- Zoeken naar ideeën en kansen
- Verhoogde verantwoordelijkheid
- Inzicht in de technologie
- Autonoom werken
- Betrokken bij besluitvorming

Appendix E. Codebook focus groups

Code	Type	Description (if code is not self-explanatory)	Example
Changes on the work floor			
Different user interface	Inductive	The system will lead to a different user interface, which is the graphical design of the system to enable the operation of the system by the user and for the system to present information to the user.	
Little change as possible	Inductive	Comments related to the wish that the user does not notice much change in the end.	"Ik hoop ten eerste dat de eindgebruiker er zo min mogelijk last van heeft eerlijk gezegd" (focus group 4, P2).
Increased use of data	Inductive		"Beschikbaarheid/toegankelijkheid van data gaat de gewone gebruiker helpen in zijn/haar werk". (focus group 4, Miro sticky note).
Increased standardization	Inductive	Increased standardization of functions in the new system. All organizations use the same format.	
Increased flexibility	Inductive	Increased flexibility and adaptability of functions by one organization of the new system.	
Agitation	Inductive	Agitation and unrest among employees due to the transformation.	"Ik verwacht ook wel aardig wat weerstand op de werkvloer, en onbegrip." (Focus group 3, P4)
Communication about the change	Inductive		"Ik denk dat het belangrijk is om medewerkers daarin mee te nemen wat je dan anders gaat doen in de nieuwe situatie vooral en waarom je dat zo gaat doen." (focus group 3, P2)
Long implementation process	Inductive		"Men is bang voor een lang implementatietraject". "Het migreert gewoon langzaam, het ene door naar het anders."
Getting used to	Inductive		"Opnieuw wennen en het gevoel van weer iets nieuws" (FG 2, multiple participants).
New mind-set needed	Inductive		"Het is niet een ander systeem waar we het over hebben, we hebben het over een andere manier van werken." (focusgroup 1, P1). "Het gaat eigenlijk steeds over de nieuwe medewerkers, de ambtenaar van de toekomst." (focusgroup 1, P3). "De mindset, die knop moet om" (focus group 3, P3). "Het systeem en de werkwijze, dat verandert maar opzichte mindset daar moeten we aan blijven werken" (focusgroup 3, P1).
New governance	Inductive		"Dat heeft gewoon veel weerslag op de governance structuur".

			"We zijn nou heel erg bezig in de organisatie om daar heel erg structuur in te krijgen. Dus het moet wel volgens een bepaalde lijn gaan. Anders werkt het niet meer zeg maar."
Unclarity	Inductive	Unclarity about what the transformation entails, what the changes are and why it is needed.	
Increased digitalization	Inductive		"Dit is geen technische wijziging. Als je het iets brede bekijkt is het een andere manier van werken of een stukje organisatieontwikkeling. Maar als je het nog breder bekijkt is dit onderdeel van een veel bredere transformatie die ook wat doet met de mindset van mensen."

Stakeholder groups = who are involved in and affected by the change.

Functional manager	Inductive		-
Users	Inductive		-
IT/ICT employees	Inductive		-
Management	Inductive		-
Citizen	Inductive		-
Contract management	Inductive		-
Information provision architects	Inductive		-
Process owners	Inductive		-
CIO's	Inductive		-
Financing	Inductive		-
Purchasing	Inductive		-
Digital coaches	Inductive		-

Entrepreneurial qualities = regarding the changing role and qualities of the employees in the transition, related to entrepreneurship

Risk-taking	Deductive		"Als er een norm heerst, en je wil er vanaf stappen, dat is zeker risico nemen. Is heel belangrijk denk ik, voor zo'n transitie". (focus group 3, P4).

"Dat hangt ook heel nauw samen met krijg je ook de ruimte van het management om dat soort risico's te mogen nemen" (Focus groep 3, P4). |
| Innovative | Deductive | | "Innovatief vind ik lastig, of dat nodig zou moeten zijn na de transitie, meer dan nu." (Focus group 3, P2). |

		"En als je met je systeem, je proces, de afspraken, eigenlijk de bulk pakt en dat je inderdaad vanuit de creativiteit, innovativiteit van de medewerker, juist zo'n situatie kunt oppakken. Dan vind ik het [innovatief zijn] zelf een hele goede." (focus groep 3, P2)
Creative	Deductive	"Creatieve mensen staan meer open voor verandering denk ik ook. Die gaan er ook heel anders mee om. Die zien vaak wel het positieve in denk ik. Juist omdat ze wel creatief zijn, kunnen ze dingen anders oplossen of aanpakken" (focus groep 3, P3).
Proactive/initiative-taking	Deductive	"werken buiten de voorgeschreven systemen om" (focus group 2, Miro sticky note).
		"Misschien hoop je wel dat medewerkers meer mogelijkheden gaan zien als ze ook zien wat de technische mogelijkheden kunnen zijn van hun werk." (focus group 4, P2).
Increased responsibility	Deductive	"Ja is een hele goede denk ik. Ik denk omdat je je ook betrokken voelt bij die besluitvorming, dan vind je jezelf ook belangrijk en ga je anders om met de verantwoordelijkheid die jou is toebedeeld." (Focus group 3, P3).
		"Het wordt pas interessant als de gebruiker invloed kan hebben. Meer invloed op hoe hij zijn werk doet." (Focus group 5, P3).
Autonomous	Deductive	"Dan komt de taakvolwassenheid van de medewerkers om de hoek kijken, wat wil je en mag je verwachten op dat vlak." (Focus group 3, P2).
Involved in decision-making	Deductive	"Ik hoop dat de organisatie ook op basis van de input van medewerkers bepaalt welke componenten ze wel of niet gaan gebruiken" (Focus groep 3, P4).
		"De afstand tussen de gebruiker en besluitvorming is heel groot" (focus groep 5, P3).
Idea/opportunity-seeking	Deductive	"werken buiten de voorgeschreven systemen om" (focus group 2, Miro sticky note).
		"Zoeken naar kansen ideeën, ik denk dat het dan wel heel mooi zou zijn dat er vanuit een vakafdeling ook goed gekeken wordt, wat doen organisaties om ons heen, zijn daar mooie ontwikkelingen waarvan je zegt, daarmee willen we ook aan de slag. Dat collega's van de vakdomeinen ook zelf met ideeën komen zodat je volgende ontwikkeling krijgt." (Focus group 2, P1).
Acceptance of the risk to fail	Deductive	"Wat ik wel merk, dat mensen vanuit vakapplicaties vaak heel veel zekerheden willen hebben voordat ze de volgende stap maken. Als je dat op die manier bedoelde dan denk ik ja, je komt eigenlijk in een omgeving terecht met veel meer dynamiek. Daardoor kan je eventueel anders gaan acteren." (focus groep 3, P4).

Understanding of the technology	Deductive	"Hoe die interactie van die gegevens, een van de lagen van Common Ground zeg maar, hoe die interactie moet plaatsvinden en waarvoor dat dat moet gebeuren, daar moet aandacht voor komen." (focus group 2, P4). "

"Want zeker als je ook als werknemer het proces moet kennen, dat je wel snapt hoe zo'n applicatie ook tot een bepaalde hoogte ook wel werkt. Dat is denk ik ook wel de nieuwe medewerker waar wij naartoe willen gaan." (focus group 2, P2). |

General qualities / role = regarding the changing role and qualities of the employees in the transition.

Flexibility	Inductive	"Er wordt heel wat verwacht waarschijnlijk van medewerkers, dat ze zich flexibel gaan opstellen." (focus group 3, P4).

"Ik vind alleen de snelheid en dynamiek wel sterk gegroeid is. Dat maakt ook dat je ook van de werkners grotere flexibiliteit en veranderbereidheid mag verlangen denk, en ook moet verlangen, dan dat het voorheen was." (focus group 4, P1).

"Je hebt procesgerichte instelling, flexibilteit, want het zal niet 1 2 3 in één keer allemaal goed zijn. Je moet met tegenslagen om kunnen gaan" (focus group 5, P4). |
| Digital skills | Inductive | "Digitaal vaardig is voor mij dat een medewerker ook wel intuïtief is in het gebruik van het systeem (focus group 2, P3).

"Voor medewerkers geldt dat de digivaardigheid op de proef wordt gesteld" (focus group 3, Miro sticky note).

"Je wil toch wat meer op het digitale vlak dat mensen daar vaardigheden en kennis in ontwikkelen) (focus group 4, P3).

"Digitale fitheid heb ik het maar genoemd. Dat ik nu echt zie, het is allemaal zo snel gegaan, de hele digitalisering en hoe we het met z'n allen allemaal ingericht hebben. Dat we vergeten zijn om de collega's daar goed in mee te nemen" (focus group 5, P1). |
| Data skills | Inductive | "Belangrijk denk ik bij Common Ground oplossingen is dat de gemeente steeds meer een eigenaarschap krijgt van de gegeven en de data. En dat dat ook een primarie rol gaat worden". (Focus group 2, P4).

"Het vergt ook wel wat databewustzijn van de medewerkers. En daarin merk ik bij heel veel medewerkers dat daar ook nog groei in moet plaatsvinden" (focus group 4, P1). |
| Broader perspective | Inductive | "Ook wel breder kunnen denken dan je eigen domein" (focus group 1, P4). |

			"Wat ik ook wel in mijn optiek belangrijk vind is een soort relativeringsvermogen. Zie het een beetje in perspectief." (focus group 4, P3).
Adaptive	Inductive		"Dat adaptievermogen van überhaupt een nieuwe werkwijze of nieuwe systeem met een andere interface, is toch wel meer een dingetje dan dat het nu zou moeten zijn volgens mij." (focus group 3, P2). "Medewerkers zullen digitaal vaardiger en zelfredzamer moeten worden om flexibel in te kunnen springen op steeds meer en snellere wijzigingen" (focus group 3, Miro sitcky note). "Ze krijgen te maken met allerlei veranderingen die zich snel achter elkaar opvolgen" (focus group 3, P4).
Critical attitude	Inductive		Miro sticky note
Communication skills	Inductive		"Communicatievaardigheden. Ik merk ook gewoon, een heleboel medewerkers kunnen gewoon geen stukken schrijven. Stukken schrijven waarom ze iets doen, iets niet doen, gewoon besluit voorleggen, een vraag stellen." (focus group 1, P1).
Self-reflection	Inductive		Miro sticky note
Open minded	Inductive		"Loskomen van dat vaste ritme in plaats van maar in je oude patronen blijven hangen, maar dat je ook meegaat in wat is nieuw" (focus group 3, P4) "Volgens mij is gewoon een open houding van medewerkers ook wel gewenst en kunnen zij überhaupt open staan voor een nieuwe verhaal" (focus groep 3, P4). "Het is een kwestie van houding en gedrag" (Focus groep 3, P1).
Ownership	Inductive		"Eigenaarschap op data en het product" (Miro sticky note)
Curiosity	Inductive		Miro sticky note
Good listener	Inductive		Miro sticky note
Analytical thinking	Inductive		Miro sticky note
Process-focused	Inductive		"Procesmatig werken en denken" (Miro sticky note)
Increased cooperation	Inductive		"Niet compleet vasthouden aan je eigen principes, je eigen keuzes, je eigen wensen, je eigen eisen, maar te realiseren dat je samenwerkt met anderen. Als je iets met Common Ground wil dan kan je dat niet alleen, dan moet je samenwerken." (Focus group 1, P3). "Ik vraag me af als juist samenwerken en integraal werken veel belangrijker wordt. Samenwerken is lang niet altijd zo vanzelfsprekend." (focus group 3, P2).

Customer focused	Inductive		"De mindset zal klantgerichter moeten worden met een belangrijke rol en positie op Klant Contact Centrum" (focus group 3, Miro sticky note).
			"Zet de klant voorop, en hoe kan ik de klant helpen door gebruik te maken van het (zaak)systeem" (focus group 4, P1).

Identity = comments related to identity of employees

Self-concept	Deductive	self-concept based on beliefs, values, attributes, experiences and motives (Ibarra, 1999; Schein, 1978, both cited in Slay & Smith, 2010).	"Ik vind het ook heel mooi om een bijdrage te leveren aan de maatschappij. De maatschappelijke thema's waar we mee te maken hebben, vind ik heel interessant." (FG 1, P4).
Socialization process	Deductive	Professional identity results based on the socialization process and rhetoric in which one obtains information about meanings related to a profession (Slay & Smith, 2010).	"Bij ons staan de kaders er niet, en dan krijg je heel erg dat iedereen zijn eigen kadertje heeft." (FG 1, P1). "Wat ook belangrijk is, is dat mensen het verhaal snappen en begrijpen wat er gaande is. Wat het vraagt van de organisatie. En vervolgens ook kunnen vertalen, wat betekent dat voor mijn eigen werk en voor mijn eigen handelen." (FG 1, P4)
Individual adaption through career transition	Deductive	Individuals adapt and adjust their professional identity during courses of career transition (Slay & Smith, 2010).	"Voor mij is het puur business en ik doe m'n ding. Dat mis ik wel, maar waarschijnlijk omdat daar nog een beetje gewenning moet komen. Werken bij de overheid betekent voor mij een steentje bijdragen aan de samenleving." (FG 3, P3)
Work and life influences	Deductive	Work as well as life experiences influence professional identity, by clarifying self-understanding and priorities.	-
Identification	Deductive	Social categories may be a way to identify oneself. Identification refers to the question "Who are you?".	"Bepaalde mensen kijken toch heel erg tegen je aan, als zijnde, je werkt bij 'de gemeente' 'de overheid', dus dat is één groot geheel en dan weet je alles en je hoort dat allemaal te kunnen. Maar het geeft ook iets extra's om je bijdrage te kunnen leveren een het maatschappelijke gebeuren." (FG 3, P1).
Internalization	Deductive	Internalizing a category's virtues. Internalization of certain virtues to act upon refers to the question "What should I do?".	"Hoeveel tijd steek je nu in die kleinste groep. Op een geven moment moet je gewoon accepteren dat je mensen iedere keer weer moet helpen met hetzelfde, dezelfde acties in het systeem." (FG 2, P3).
Identity work	Deductive	In identity work, the self of the individual evolves and changes. These changes refer to attitudes, beliefs, propensity, and willingness to act.	"Het grote verschil dat ik zie bij gemeente is het niet innovatieve karakter van de gemeenten en van ambtenaren. Weinig verandervermogen" (FG 1, P3). "Wij werken al volledig digitaal en dat verandert ook niet" (FG 2, P5).
Becoming vs. being	Deductive	This intensity is mostly associated if one is in the process of becoming, instead of being (Ybema et al., 2009).	"Men gaat proberen de oude manier van werken te vertalen en in zaken te proppen. En dat is natuurlijk niet helemaal handig" (FG 1, P1) "Ik worstel heel erg met wat ik zou willen dat het verandert" (FG 1, P1)

Appendix F. Data collection instruments Delphi study & informed consent

Opening statement of each questionnaire for consent

Je bent uitgenodigd om deel te nemen aan een onderzoek gerelateerd aan de transitie (de migratie van de e-Suite en BZM naar Common Ground gebaseerde componenten). Dit onderzoek wordt gedaan door Els van Uum van de faculteit Behavioural, Management and Social Sciences van de Universiteit Twente en adviseur bij Dimpact.

Het doel van dit onderzoek is om tot concrete aanbevelingen te komen voor het management/bestuurders om de verandering goed aan te sturen en werknemers te helpen de nodige kwaliteiten te ontwikkelen om de digitale transitie succesvol te maken. Het duurt ongeveer 30 minuten om het te voltooien.

De gegevens worden dus gebruikt voor het opstellen van aanbevelingen om de transitie waar uw gemeente mee te maken heeft goed te kunnen sturen. Je deelname aan dit onderzoek is geheel vrijwillig en je kunt zich op elk moment terugtrekken.

Let op: Mocht je de vragenlijst niet vóór de deadline ingevuld hebben, dan ben je automatisch uitgesloten van de methode. Dan kan ik helaas je data niet meenemen in het resultaat.

Contactgegevens voor meer informatie: Els van Uum, els.vanuum@dimpact.nl

Door verder te gaan met de vragenlijst ga je akkoord met deelname aan het onderzoek. Zou je hieronder kunnen bevestigen dat je de bovenstaande voorwaarden gelezen en begrepen hebt?

- o   Ik heb het gelezen en begrepen

Voer in het onderstaande veld je naam in

_____

Questionnaire 1

Block 1: Focusgroepen resultaten

Tijdens de focusgroepen zijn de verwachtte veranderingen op de werkvloer en de veranderende kwaliteiten/rol van werknemers besproken m.b.t. de transitie.

In de volgende video worden de eerste resultaten van de focusgroepen kort gepresenteerd, zodat je deze kunt gebruiken als input voor de vragenlijsten. Bekijk de video.

Video presentatie.

- o Ik heb de hele video bekeken

Block 2: Managementfactoren invoeren

Welke managementfactoren kunnen werknemers helpen om de benodigde kwaliteiten/rol te ontwikkelen in de context van de digitale transitie? (bijv. wat moeten ze aanmoedigen, bieden, mee helpen of mobiliseren)

Voer hieronder factoren in die jij denkt dat van belang zijn. Je kunt er maximaal 5 invullen.

Voer iedere factor op een aparte regel in. Houd het kort, het verder verdiepen in de factoren om tot aanbevelingen te komen komt in een andere vragenlijst.

Factor 1; Factor 2; Factor 3; Factor 4; Factor 5.

Block 3: Mogelijkheid tot aanvullingen

Heb je verder nog opmerkingen/gedachten die je wil delen die van belang zouden zijn op dit punt in de methode?

Block 4: Afsluiting

Dat was de eerste vragenlijst! Bedankt voor je deelname.

Vrijdag worden de resultaten gebundeld en maandag ontvang je de volgende vragenlijst.

Vergeet niet nog een laatste keer op het pijltje verder te klikken om je resultaten op te slaan.

Questionnaire 2

Block 1: Focusgroepen resultaten

Tijdens de focusgroepen zijn de verwachtte veranderingen op de werkvloer en de veranderende kwaliteiten/rol van werknemers besproken m.b.t. de transitie.

Tijdens de vorige vragenlijst kreeg je de volgende video te zien waarin de eerste resultaten van de focusgroepen kort gepresenteerd worden, zodat je deze kunt gebruiken als input voor de vragenlijsten. Indien je wilt, kun je de video (of een deel) nu nogmaals bekijken.

Video presentatie.

Block 2: Managementfactoren beoordelen

Tijdens de vorige vragenlijst zijn er door iedere deelnemer managementfactoren ingestuurd. Deze factoren zouden kunnen bijdragen aan het succes van de transitie en werknemers kunnen helpen om de benodigde kwaliteiten/rol te ontwikkelen.

Bekijk de lijst met factoren. Beoordeel iedere factor op relevantie voor de context.

Probeer kritisch te zijn en onderscheid te maken tussen de factoren om te beoordelen welke écht relevant zijn voor de context.

Kies voor iedere managementfactor de optie waarmee je aangeeft in hoeverre je het wel of niet eens bent met het belang van de factor in deze context.

Draagt deze factor bij aan het goed aansturen van de werkvloer in de transitie zodat werknemers de benodigde rol/kwaliteiten kunnen ontwikkelen?

[LIJST MET FACTOREN EN LIKERT SCALE 1-5]

Block 3: Mogelijkheid tot aanvullingen

Heb je verder nog opmerkingen/gedachten die je wil delen die van belang zouden zijn op dit punt in de methode?

Block 4: Afsluiting

Dat was de tweede vragenlijst! Bedankt voor je deelname.

Vrijdag worden de resultaten gebundeld en maandag ontvang je de volgende vragenlijst.

Vergeet niet nog een laatste keer op het pijltje verder te klikken om je resultaten op te slaan.

Questionnaire 3

Block 1: Focusgroepen resultaten

Tijdens de focusgroepen zijn de verwachtte veranderingen op de werkvloer en de veranderende kwaliteiten/rol van werknemers besproken m.b.t. de transitie. In de eerste vragenlijst kreeg je de volgende video te zien waarin de eerste resultaten van de focusgroepen kort gepresenteerd worden, zodat je deze kunt gebruiken als input voor de vragenlijsten.

Op dit punt kan het bruikbaar zijn om (een deel van) de presentatie nog eens te bekijken, omdat je in deze vragenlijst de aanbevelingen voor management/bestuurders gaat vormen.

Video presentatie.

Block 2: Aanbevelingen invoeren

De volgende managementfactoren zijn overgebleven na jullie beoordeling. De factor is meegenomen als minimaal 50% van de deelnemers de factor belangrijk achtte, waarbij naar verhouding de 'helemaal eens' optie zwaarder woog dan de 'eens' optie.

Overgebleven factoren:

Kennis opbouwen van Common Ground
Communicatie over het waarom en belang
Digitale vaardigheden (personeel) ontwikkelen
Sturen op digitale zelfredzaamheid
Klantgerichtheid
Kwaliteit van dienstverlening
Heldere visie en plan van aanpak
Ruimte en tijd beschikbaar
Opzetten verander-managementplan
Motiveer medewerkers

Welke aanbevelingen zou jij op basis van deze factoren aan management/bestuurders mee willen geven? Met als doel om de transitie goed aan te kunnen sturen op de werkvloer en zodat werknemers de benodigde kwaliteiten/rol kunnen ontwikkelen.

Je hoeft niet alle factoren te verwerken in je aanbevelingen, maar gebruik ze als input om gerichte aanbevelingen te kunnen vormen.

Voer hieronder de aanbevelingen in. Je kunt er maximaal 5 invullen.

Aanbeveling 1; Aanbeveling 2; Aanbeveling 3; Aanbeveling 4; Aanbeveling 5.

Block 3: Mogelijkheid tot aanvullingen

Heb je verder nog opmerkingen/gedachten die je wil delen die van belang zouden zijn op dit punt in de methode?

Block 4: Afsluiting
Dat was de derde vragenlijst! Bedankt voor je deelname.
Vrijdag worden de resultaten gebundeld en maandag ontvang je de volgende vragenlijst.
Vergeet niet nog een laatste keer op het pijltje verder te klikken om je resultaten op te slaan.

Questionnaire 4

Block 1: Focusgroepen resultaten
Tijdens de focusgroepen zijn de verwachtte veranderingen op de werkvloer en de veranderende kwaliteiten/rol van werknemers besproken m.b.t. de transitie.
Tijdens de eerste vragenlijst kreeg je de volgende video te zien waarin de eerste resultaten van de focusgroepen kort gepresenteerd worden, zodat je deze kunt gebruiken als input voor de vragenlijsten. Indien je wilt, kun je de video (of een deel) nu nogmaals bekijken.
Video presentatie.

Block 2: Aanbevelingen ranken
Tijdens de vorige vragenlijst zijn er door iedere deelnemer aanbevelingen ingestuurd. Deze aanbevelingen zouden management/bestuurders kunnen gebruiken om de werkvloer in de transitie goed aan te sturen zodat werknemers de benodigde kwaliteiten/rol kunnen ontwikkelen.
Bekijk de lijst met aanbevelingen. Zet de aanbevelingen op volgorde op basis van belang voor de context.
Zet de aanbevelingen op volgorde, waarmee je aangeeft in hoeverre je ervan uitgaat dat dit een aanbeveling is die van belang is om de werkvloer in de transitie goed aan te sturen zodat werknemers de benodigde kwaliteiten/rol kunnen ontwikkelen.
[LIJST MET AANBEVELINGEN]

Block 3: Mogelijkheid tot aanvullingen

Heb je verder nog opmerkingen/gedachten die je wil delen die van belang zouden zijn?

Block 4: Afsluiting

Dat was de laatste vragenlijst! Bedankt voor je deelname.

Vergeet niet nog een laatste keer op het pijltje verder te klikken om je resultaten op te slaan.

Volgende week vindt er een gezamenlijke sessie op 9 april plaats waar je aan deel kunt nemen indien je dat wil. Hierbij kunnen we napraten over deze methode. Wil/kun je hieraan deelnemen?

- o Ja
- o Nee

Appendix G. Summarizing image goal & procedure of Delphi study