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A case study of millennials' critical factors during the onboarding process.

Master's thesis in the Master's Program International Project Management

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ABSTRACT

The literature indicates the relevance of companies' initiatives for the learning and integration of newcomers, namely the onboarding process (OP). During the first year of work, when the OP takes place, employees decide if they will leave a company or not. Employees' turnover represents a knowledge and investment loss for companies, and millennials (1981-1996) tend to leave their job after 2 years because of their values and motivation; this will represent a problem because by 2020 millennials will become the biggest work force. By analyzing the OP from a knowledge management (KM) perspective, this study evaluates two critical factors of millennials in the architecture and construction field, i.e. job satisfaction and retention, with the objective of finding the correlation between the OP tools and practices and these critical factors. The research consisted in a literature review, a factor analysis to determine the work motivation factors (WMFs) that lead to job satisfaction, and a case study of an architecture firm (AFirm) in which thirteen semi-structured interviews were conducted and company documents were analyzed. The findings show that the OP can be interpreted as a knowledge management system (KMS) that takes place within a community of practice (CoP). This KMS allows the transfer of knowledge to new employees, which enables their development and identity building as CoP members, consequently affecting their job satisfaction and retention. Furthermore, the new employees' identity building, job satisfaction and retention were found to be affected by the following: barriers for newcomers' participation in the CoP and knowledge transfer (KT); a substitution effect that permits to fix the failure of certain tools and practices; as well as by a corroboration process that leads to newcomers' verification of the WMFs. Additionally, a correlation between job satisfaction and new employees' intentions to remain in their job was found, in which organizational support played the most significant role. This research contributes by bringing a new perspective to onboarding from the KM field, emphasizing a link that was seldom considered (i.e. OP and KM); and by suggesting recommendations for AFirm's OP.

Keywords: Knowledge, Management, Transfer, Tools, Practices, CoP, Onboarding, Millennials, Job satisfaction, Motivation factors, Retention, Turnover, Architecture firms.

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Preface

The interviews for this study have been conducted from February 2019 to May 2019. The project was carried out at the Department of Architecture and Civil Engineering, Chalmers University of Technology, Sweden.

This project has been executed with PhD Abderisak Adam as supervisor, who offered constant support through the ups and downs. For this we are grateful. The program coordinator and professor, Martine Buser, was also of great help, for which we would like to give them many thanks. Additionally, we thank our examiner Göran Lindahl. Finally, we would also like to thank AFirm and its employees for their collaboration and involvement, without which this research would not have been possible.

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Abbreviations

The following is a list of abbreviations used throughout this paper.

ACE	Architecture and civil engineering
DOP	Digital onboarding platform
GL	Group leader
KM	Knowledge management
KMS	Knowledge management system
KS	Knowledge sharing
KT	Knowledge transfer
LMX	Leader member exchange
NW	Newcomer
OM	Office manager
OP	Onboarding process
PL	Project leader
QL	Quality leader
SAR[1]	Situation/activity /relationship
T&P	Tool and practice
WMF	Work motivation factor

[1] This was an abbreviation used in the interview guides to simplify them, because a recurrent question was whether any situation/ activity/relationship had influenced the interviewees perception regarding diverse aspects.

1 Introduction

This section covers the problem formulation of the present study. First the background of the problem is explained; later the purpose of the study is stated, and the proposed research questions are formulated; lastly, the case study is introduced.

1.1 Background

Each generation, or "all of the people born and living at about the same time, regarded collectively" (Oxford Dictionaries, 2019a), have lived through experiences (i.e. social, technological, political and economic events, etc.) that shaped their view of different matters (Dimock, 2019). The generation Y or millennial generation, consisting of those born between 1981-1996 (Dimock, 2019), is sometimes portrayed as lacking the 'right' values and behaviors towards work. It seems that millennials are misunderstood and compared to previous generations which generates expectations of how they should behave at work. The latter perspective seems to have led to an interest in understanding how their values translate into the work environment and how to motivate them (e.g. Deloitte, 2018; Kultalahti and Viitala, 2014; Notter, 2018; Qualtrics and Accel, 2016).

In comparison with people from the generations that precede them, millennials give greater importance to Maslow's higher order needs (Gupta, 2011; Notter, 2018); namely, self-actualization and esteem (i.e. self-esteem and esteem from others), than to basic needs. This population aspires and seeks knowledge, and meaningful and challenging works (Kane, 2019; Notter, 2018). Moreover, they offer loyalty to their employers when these have a positive impact in society, rather than focusing only on maximizing profits (Deloitte, 2018). In these conditions, companies are advised to consider what differentiates millennials and promotes their job satisfaction in order to be able to engage them (Corvi et al., 2007; Kane, 2019; Notter, 2018).

The concept of job satisfaction has been explored by many over the last century, yet researchers have defined different theories and motivation factors that lead to job satisfaction with no consensus in place (e.g. Adams, 1965; Herzberg et al., 1959; Maslow, 1943; Vroom, 1964). Several of the theories have been studied to actualize them and prove their relevance in relation to millennials (e.g. Grubbström and Lopez, 2018; Kultalahti and Viitala, 2014).

Nonetheless, generational characteristics are not the only determinants on employees' job satisfaction and retention. Researchers point to the relevance in defining the aforementioned aspects in the different fields of work. The architecture and construction industry is an example of this. For instance, the creative nature of the occupation has made the design field a context for the investigation of job motivation (e.g. Oyedele, 2010), or the demanding conditions and character of the architecture profession have generated research interest in regard to job satisfaction and employee retention (e.g. Sang et al., 2009).

A survey by Qualtrics and Accel (2016) found that what matters more to millennials at work is satisfaction, closely followed by stability and compensation, and that they mainly leave their jobs because they want a more fulfilling one. Deloitte's (2018) survey shows that 43% of millennial employees expect to change job after two years.

Even 46% of millennials satisfied with their jobs are planning to leave in the next 12-18 months (Qualtrics and Accel, 2016).

The first year of employment is said to be the one in which new hires decide if staying in a company in the long-term (Laurano, 2013). Hence, keeping employees' interest in the company should start as early as possible with an introductory process to support new employees, known as onboarding (Snell, 2006). According to Snell (2006) the main aim of onboarding is to achieve employees' full productivity, but it is also said to be decisive for attaining employees' job satisfaction, loyalty to the company and retention (Bauer, 2010; Klein et al., 2015; Snell, 2006; Weinstock, 2015). The influence of the onboarding process in these aspects suggests a connection between them, which researchers have studied, e.g. employees' job satisfaction and performance (Alyoubi et al., 2018) and job satisfaction and retention (Behera et al., 2011).

This process has been mainly studied from a Human Resources perspective, with concern on administrative aspects, social interactions, and what the new hires need to learn in order to adjust to the organization (e.g. Bauer, 2010; Klein et al., 2015; Weinstock, 2015). The knowledge management (KM) perspective could provide valuable insights for the onboarding practices, and the role of managers and team members during the integration of a new employee. Among different definitions for onboarding, emphasis is made in the acquisition of knowledge by the new employees (Bauer, 2010; Snell, 2006). It could be said that this process consists in great part in transferring the company's knowledge to the newcomers, through tools and practices.

Companies have realized that their competitive advantage relies on their knowledge and how they use it, which has accentuated the importance of KM (Dalkir, 2011; Hislop, 2013). Research has found a positive impact of some KM processes, in special knowledge transfer (KT), in job satisfaction and performance (Alyoubi et al., 2018; Henttonen et al., 2016). The effect of KM in these aspects, indicates similarities with onboarding practices, which, as mentioned, aims at employees' job satisfaction and productivity. However, the relationship between KT and the onboarding process has been seldom investigated. Raytheon (2012) has researched both topics without getting into details about their relationship; besides, this was done in some industries but remains unexplored in the architecture and construction field. Additionally, examining at a level of tools and practices, as base unit of KT, could provide a more detailed and novel view of this relation.

Millennials are currently the generation with the largest population in the workforce segment in the US (Fry, 2018), and they are expected to reach the same result globally, by 2020 (Tilford, 2018). Last year in Sweden, generation Y represented approximately 35.8% of the labor force, on par with the previous generation X (Statistics Sweden, 2019). Although, millennials seem to change job in a similar fashion as Gen X did (Fry, 2017), what makes them tick is different from the needs and desires of the generations that preceded them. Companies that want to retain their talent must consider generational differences. KT, as a component of firms' onboarding processes, can play a role in this quest.

1.2 Purpose

The aim of the project is to examine the effect that KT of an architecture firm, during the onboarding process, has on the integration of new millennial employees into the company. In specific, to analyze from a KM perspective, the correlation between the different onboarding tools and practices and the critical factors for new employees of the generation Y, namely the motivational factors that determine job satisfaction and their intentions to remain in the job. Moreover, the possibility of optimizing the onboarding process has also been explored.

1.2.1 Research questions

With this purpose in mind, the following research questions are identified:

- How can the onboarding process be understood from a knowledge management perspective?
- How do the tools and practices, used during the onboarding process, affect the work motivation factors of new millennial employees?
- What is the effect of new employees' job satisfaction in their intention to remain in the job?
- How can the onboarding process be optimized by leveraging on the learnings highlighted by a knowledge management perspective?

1.3 AFirm case study

As the architecture and construction industry are of interest to authors, and because it also represents a context with gaps worth researching in relation to the topic in question, an architecture firm was selected as research subject. The case study is a Swedish architecture firm (henceforth referred to as AFirm), specifically, its office in Gothenburg. The company has projects in Europe, Africa and America; over 900 employees; and offices in different cities in Sweden, including Gothenburg and Stockholm, as well as international offices in United Kingdom, Norway and Denmark. Contact with the firm was done through the thesis' supervisor, who has previously conducted research with AFirm.

Many reasons influenced the selection of AFirm for the case study. First, there was an interest in conducting the study within the architecture and construction industry, due to the limited research of the topic existent in this industry. Secondly, AFirm gives strong importance to KM; they describe themselves as a network organization and have created what they call development networks, to support knowledge sharing and creation across disciplines. Moreover, they engage in sharing knowledge across the industry to foster knowledge creation. Third, AFirm is a company in constant growth, with around 50 to 60 new hires every semester, which has them thinking about the best way to transmit important knowledge to the new employees, in particular, their culture. Fourth, at the moment of contact AFirm's HR unit was working on a digital onboarding platform for new hires to get acquainted with the firm and how things work in it; which was launched early on April 2019, while this research was ongoing. Therefore, the company showed interest in examining their onboarding process to obtain insights that could also help to evaluate the relevance of the platform for the onboarding objectives.

2 Theoretical Framework

The following section contains six main sub-sections. The first one is about knowledge and sets the context and relevance for the knowledge management discipline. The second defines knowledge transfer. The third sub-section defines and exemplifies knowledge management tools and practices. The fourth part describes the onboarding process, its practices. The fifth one, discusses job satisfaction and the motivation factors for millennials employed in the architecture and construction field. The last part regards employee retention.

2.1 Knowledge management (KM)

Some say that, nowadays, society is knowledge-based. That it has experienced an increase in the role of knowledge in life and a change in the nature of work, with a proliferation of jobs that require knowledge; and that it has outgrown the industrial society and its labor-intensive work (Dalkir, 2011; Hislop, 2013). According to Dalkir (2011) "an organization in the Knowledge Age is one that learns, remembers, and acts based on the best available information, knowledge, and know-how" (p.2). In this society, firms are knowledge-intensive, which according to Hislop (2013) lack a unanimous definition. In the literature, central characteristics describing the work of knowledge-intensive firms and their workforce (i.e. knowledge workers), are the following: intellectual nature of the work (Alvesson, 2000), knowledge intensity (i.e. extent to which a company's outputs depend on complex knowledge) (Von Nordenflycht's, 2010), utilization and creation of abstract/theoretical knowledge (i.e. professional knowledge work perspective) (Hislop, 2013), or use of contextual and tacit knowledge (i.e. the perspective of all work is 'knowledge work') (ibid.). The common aspect being the use of knowledge as the primary mean to achieve organizations' goals. Architecture firms are among those organizations categorized as knowledge-intensive (ibid.).

The knowledge-based society theories are criticized by some authors that point to the continuity of certain elements of the industrial society, or the similar growth in other types of jobs hardly described as knowledge-intensive (Hislop, 2013). Nonetheless, as Hislop (2013) states, knowledge's relevance for today' society cannot be denied. Thus, considering knowledge and its effective management as a source of competitive advantage (Dalkir, 2011; Hislop, 2013) directs focus to the knowledge management (KM) discipline.

Knowledge management is another concept with a wide range of definitions (Dalkir, 2011). Agrifoglio (2015) focuses on a process perspective and describes it as consisting of "various sets of socially enacted 'knowledge processes' such as knowledge creation (known as contraction or development), knowledge sharing (known as transfer, distribution or dissemination), and knowledge preservation (known as storage and retrieval)" (p.10). Dalkir (2011) explains KM is an approach to achieve firms' success consisting in "cultivating and sharing a company's knowledge base" (p.2). Although Dalkir (2011) explains that encouraging KM processes and fostering organizational learning are key for the KM goals, the author considers more than just processes, and states KM is “the deliberate and systematic coordination of an organization’s people, technology, processes, and organizational structure in order to add values through reuse and innovation” (p.4). Similarly, Hislop (2013) suggests the utilization of technologies, social processes, organizational structure, culture and people management practices for managing an organization’s workforce knowledge, and considers all conscious attempts to do so as KM. However, the author also introduces the concept of informal knowledge management, for those knowledge related processes that are not systematized.

2.1.1 KM and the knowledge epistemologies

KM is dependent on the conceptualization of knowledge (Hislop, 2013; Boyd, 2013). Hislop (2013) describes two epistemologies of knowledge that have been supported through the KM literature (with different names), the objectivist and the practice-based perspectives. According to Boyd (2013), the objectivist perspective is what has led to ‘conventional’ KM. The objectivist epistemology considers knowledge as an object or entity product of a cognitive process (Hislop, 2013); a resource or cognitive capability (Newell et al., 2009). Also, that it is independent from context and separable from people who possess it, which means it can be made explicit in verbal or written expression (i.e. codified), collected and used to enhance work (Boyd, 2013; Hislop, 2013; Newell et al., 2009). Hislop (2013) explains that under such characterization of knowledge, the KM discipline prioritizes the conversion of tacit knowledge (i.e. personal, subjective, context-specific) into explicit (i.e. impersonal, objective, context-independent) and concedes a crucial role to Information and Communication Technologies (ICT). Newell et al. (2009) synthetize this perspective’s definition of knowledge as “something people *have*” (p.3). On the other hand, the practice-based epistemology regards knowledge as “something people *do*” (ibid. p.3). The practice-based epistemology proposes a somewhat more inclusive conceptualization. It is not a complete opposite of the objectivist one, rather it disputes its *either/or* logic (Hislop, 2013). This epistemology treats knowledge as inseparable from activities and not fully ‘disembodied’ from people, which contests the purely cognitive nature of knowledge and the explicit-tacit dichotomy supported by the objectivist perspective (ibid.). In this sense, it supposes that both thinking and doing are part of knowing; that knowledge is neither fully explicit nor tacit but contains components of both; and that it is context-dependent, which makes it socially constructed and collective as well as individual, because of the context’s influence in addition to the individual aspects of the knowledge (ibid.).

Boyd (2013) refers to KM as an approach to improve practice (i.e. ways of working) and argues that “conventional” KM is not the most appropriate for this purpose since “practice is complex as it cannot be articulated” (p.1156). This suggests that some fields of work require a KM approach based on the practice-based epistemology. According to Boyd (2013), this is the case of the construction field, since its activities are defined by the multiple perspectives and interactions of its many involved stakeholders, and its fragmented system. Styhre (2006), explains that in construction projects, characterized by a manifold of players and interactions, “workers learn from one another in the day-to-day setting [...] seeing, saying, showing, telling, and, above all, learning-by-using […] are brought together in the process of joint learning” (ibid., p.99).

The KM processes and the tools and practices for managing knowledge also relate to the epistemologies. Each epistemology emphasizes different activities needed for managing knowledge. The objectivist epistemology focuses on converting and storing knowledge (Boyd, 2013; Hislop, 2013). Massingham (2014a) identifies critics to KM based on an objectivist perspective, which suggest that it is impossible to manage knowledge since it cannot be disembodied from people and treated as an object. For that reason, KM from a practice-based perspective contemplates that KM processes must consist in the promotion of communication and collaboration among people and emphasizes sharing through social interaction (Hislop, 2013).

2.2 Knowledge transfer (KT)

The sharing (i.e. giving) of knowledge is particularly conceived according to the epistemologies. The objectivist sharing implies that knowledge is transformed into explicit by the knowledge provider, then stored and later sought by the receiver who takes it and uses it (i.e. sender/receiver model); while the practice-based epistemology focuses on facilitating social interaction and involvement in practices (i.e. observing and doing) (Hislop, 2013). Mertins et al. (2003) state that transmission of knowledge through social interaction is the most thorough, since the conversion of knowledge implies a loss of great part of it.

Hartmann and Dorée (2015) criticize the sender/receiver model supported by the objectivist epistemology, because of the limitations it supposes for learning in organizations where the main unit of work is the project environment (i.e. project-based organizations), such as architecture and construction firms. According to them, the time constraints and the unclear purposes of projects inherent of this organizational structure, make this model incompatible for knowledge sharing and application across projects. When these knowledge processes are separated from the project work there is lack of involvement of employees in such processes, hindering learning (ibid.).

The previous use of the word 'sharing', for 'sharing knowledge', refers to its colloquial definition: "give a portion of [something] to another or others" (Oxford Dictionaries, 2019b). It is representing what Corso et al. (2003) refer to as knowledge transfer, and which they characterize as focusing "on the flow of knowledge within and outside the organizational boundaries of the firm" (p.402). There are many terms used in the KM literature for referring to this KM process, such as the use of the term *transfer* by Alavi and Leidner (2001), *sharing and dissemination* by Dalkir (2011), and *distribution* by Mertins et al. (2003). Knowledge transfer (KT) and knowledge sharing (KS) are sometimes used interchangeably (Tangaraja et al., 2016). Some authors have studied the utilization of these words to clarify the differences, according to what the variety of authors are referring to, e.g. Tangaraja et al. (2016) and Wang and Noe (2010).

KS which concerns the provision or transmission of knowledge through personal interaction (Wang and Noe, 2010), is a sub-process of the KT (Tangaraja et al., 2016; Wang and Noe, 2010). This study uses a complex view of this process of knowledge flow, represented by the concept of KT as proposed by Rezgui et al. (2010), Tangaraja et al. (2016) and Wang and Noe (2010). It includes the acquisition and internalization of the knowledge as well as its utilization by the receiver/recipient, rather than just sharing it (i.e. passing it through interaction) or making it available (i.e. codifying it for its later retrieval).

Tangaraja et al. (2016) state that KT can occur by means of two types of strategies: codification and personalization. Basically, representing the two different approaches, previously explained, for sharing knowledge according to the epistemologies. Codification aligned to the objectivist view, and personalization to the practice-based. KS only occurs as part of the personalization approach to KT (ibid.).

The use of these two strategies for KM (KT included) in combination, is shown and even encouraged throughout the literature. Hislop (2013) exemplifies this by citing Kumar and Ganesh's (2011) findings, that show companies in the manufacturing industry usually implement both approaches with positive results. Although they are not used at the same extent, which suggested that the personalization approach is recommended for firms oriented to knowledge creation (Kumar and Ganesh, 2011, cited in Hislop, 2013). Objectivist knowledge and objectivist approaches (i.e. codification) to KM are not without value. Boyd (2013) states that objectivist knowledge could be a stimulator of critical thinking instead of a ready-to-use solution to problems faced in practice. Moreover, Hartmann and Dorée (2015), who researched project-based organizations in the construction industry, suggest the sender/receiver model should be used for supporting the practice-based approaches for knowledge sharing, by informing about projects' results and indicating who are the employees with the expertise.

2.3 KM tools & practices

According to Dalkir (2011) the set of tools that support KM is termed knowledge management system (KMS). The literature usually refers to KM tools without differentiating if they are tools as define by the dictionary (i.e. things, instruments), or techniques and methods (i.e. activities) (e.g. Massingham, 2014a, 2014b; Robinson et al., 2005). Dalkir's (2011) definition is perhaps as generic as can be, considering that there are different positions in regard to the nature of these tools. The mainstream view is thinking of them as technological (Chouikha Zouari and Dhaou Dakhli, 2018), hence defining KMSs as IT-based systems (e.g. Alavi and Leidner, 2001) or ICT systems (e.g. Maier, 2007). Although, other authors argue that IT tools role in KM needs to be studied in connection to the organizational tools and management practices that also form part of the KMS (Corso et al., 2003). Therefore, Centobelli et al. (2017) and Cerchione and Esposito (2017), consider two elements as constituents of KMSs: the techniques and methods that support the KM processes and the IT-based systems that support the later, KM practices and KM tools, respectively.

Newell et al. (2009) state: "a KMS [2] *per se*, will not in itself, improve the capture, storage and sharing of knowledge. It depends on how the KMS is perceived and used as part of people's every day work practices" (p.153). Additionally, Chouikha Zouari

[2] In here KMSs are considered as IT-based systems. (Newell et al., 2009).

and Dhaou Dakhli (2018) explain that the failure of many KMS is related to the limitation represented by its definition as technological tools. They argue:

> There is no knowledge management tool which stands alone. Understanding the role and the constraints of such tools depends on people who use them, organizational context where they are used, and practices and methodologies they support (Chouikha Zouari and Dhaou Dakhli, 2018, p.649).

Robinson et al. (2005) also express the inefficacy of only contemplating IT tools, since according to them, these cannot manage all knowledge. Therefore, clarifying that in combination, IT tools and non-IT tools respectively manage the explicit and tacit elements of knowledge (ibid.). It should be noted that what Robinson et al. (2005) named non-IT tools are in majority what in this paper are named KM practices. This utilization of tools and practices in combination, is in line with the idea of coupling the different approaches to KM stemmed from the epistemologies, previously discussed.

2.3.1 Community of practice (CoP)

The concept of Community of Practice (CoP) comes from the social learning theory in which learning is portrayed as a constant renegotiation of meaning consisting in a sense making process from the interactions of the social being and its social environment (Wenger, 2010a). Such interactions require individuals to participate in social life and to express their sense making through artefacts (i.e. conceptual and physical) (ibid.). CoPs are, therefore, social structures born from the social memory that this continuous learning process generates, and which fosters a sense of belonging in participating individuals (ibid.).

Members share “a common sense of purpose and a real need to know what each other knows” (Egbu et al., 2003, cited in Ruikar et al., 2009, p.436). What unites the people identified as members of a CoP is their understanding of the undertakings of the CoP; their ability to contribute to the community with their participation, and their use of the resources generated from the CoP’s ‘history of learning’ (Wenger, 2010a). A CoP’s resources are tangible and intangible. These include: “experiences, stories, tools, and ways of addressing recurring problems” (Agrifoglio, 2015, p.36).

In an organizational context, CoPs have become a mean for learning from peers in a strive for developing the competences needed by the firms to achieve their objectives (Wenger, 2010a). According to Ruikar et al. (2009) companies have several CoPs and employees can belong to several of them at the same time. Structures within firms (e.g. units, projects) might include zero, one, or multiple CoPs within their boundaries (Wenger, 2010b). CoPs’ boundaries can coincide or not with institutional boundaries (ibid.). CoPs are not constraint to organizational structures or hierarchies, because participation is what allows employees to be part of a CoP, and not the formal status (i.e. role in the firm) (Ruikar et al., 2009). CoPs’ members can create bridges for learning across organizational structures (Agrifoglio, 2015). Informal learning and social relationships that take place within CoPs are how CoPs enable learning and innovation in organizations (Snyder and Wenger, 2010). In Snyder and Wenger’s (2010) own words:

> Developing and disseminating [valuable knowledge in organizations] depends on informal learning much more than formal – on conversation, storytelling, mentorships, and lessons learned through experience. This informal learning, in turn, depends on collegial relationships with those you trust and who are willing to help when you ask (p.110).

In regard to relationships between members, Agrifoglio (2015) express that "if kept up regularly, [they] enable discussion and debate among community members on issues within a domain, fostering ideas and developing a sense of belonging and commitment" (p.36).

Members of CoPs have different levels of involvement and with the increase of it (i.e. participation and contribution to the CoP) they develop from peripheral members (i.e. new and less involved) to core members (i.e. with active participation and knowledge sharing and production); with an in-between level of engagement characterizing the active members (Borzillo et al., 2011). This development occurs trough a five-stage process in which the core members attract and guide the peripheral ones into engaging in activities of knowledge seeking, sharing and creation (ibid.). Table 2.1 summarizes the process of CoPs members' development: 5As integration process model, proposed by Borzillo et al. (2011).

Lave and Wenger (1991) see participation in CoPs as a process whereby less knowledgeable members (i.e. apprentices, new members) learn and develop their identity as CoPs' members. Learning here is more than just observation and imitation it is taking part in the community's productive activities (ibid.). According to them, masters (i.e. more knowledgeable members that mentor new members or take them as apprentices) are more than teachers to the new members, they are sponsors; they legitimate the newcomers, granting them participation in the CoP's practice, allowing them to learn from the relationships they will build with other peripheral members and other core members (ibid.).

Table 2.1. 5As integration process model (adapted from Borzillo et al., 2011)[3]

Phase	***Description***	***Role of leaders, sponsors and facilitators***
Awareness	Peripheral members identify knowledge sub-topic within the CoP that is of their interest. Usually, they access to the CoP's knowledge, but do not contribute with their own knowledge. They are "knowledge-seekers".	Other CoP's members and core members lead peripheral members to these sub-topics. CoP's leaders seek and attract peripheral members.

[3] This table was created for another academic paper of one of this thesis' authors.

		CoP' sponsors[4] advertise topics that catch the peripheral members interest (e.g. newsletter publication).
Allocation	Peripheral members become more active (active members) and start contributing with their expertise to develop the CoP's practices.	CoP leaders or regional facilitators aid in this transition by "connecting 'knowledge-seekers' and 'knowledge-givers' " (p.33). CoP leaders incite peripheral members to participate. Sometimes the peripheral members are the ones that make contact with the leader. Active members show their expertise to other members.
Accountability	Active members start participating at "larger learning events" (p.34), in which they share their expertise and practices; or become responsible for leading smaller events.	CoP leaders identify the most involved active members, the ones sharing their expertise and participating in events. "Leaders and core members are well aware of the level of involvement and the value of the expertise of these active members to the CoP" (p.34). CoP leaders suggest these members to take these additional responsibilities.
Architectural	Fully active members, who contribute to the creation of sub-topics and practices, are legitimated by core members, becoming core members themselves. Sub-CoPs can also be created by active members for developing knowledge and specific geographical regions.	CoP's leaders assess the introduction of the new sub-topics or sub-practices and their relevance for the organization's knowledge strategy. Moreover, when there are no sponsors, they also give the approval. CoP' sponsor can help the active members to keep new sub-practice areas relevant and help with the infrastructure (e.g. funds for learning events and arrange collaborative platforms) for new sub-CoPs.

[4] Some CoP's have sponsors, these "are senior management members with a stake in the CoP. They are intermediaries between the CoP and the organizations corporate sphere and assess whether the CoP focuses on knowledge topics relevant for corporate strategy" (Borzillo et al., 2011, p.32). Furthermore, they support with funding for the events (ibid.).

Advertising	New core members advertise the newly created sub-topics in order to incite other CoP members to develop knowledge regarding this new sub-practice.	Core members with more time in the CoP, leaders and sponsors support the advertising of the new sub-topics.

Barriers

Ruikar et al. (2009) who studied CoPs in the construction field, state that just creating CoPs is not enough to seize the 'strategic value' that they can provide for an organization. According to them, creating the environment that allows the development of such communities is essential. Henceforth, so is motivating individuals to participate in CoPs (i.e. being willing to share knowledge and engage in peer-to-peer learning) (ibid.). Massingham (2014a) identifies issues of legitimation, representing a barrier for the participation and engagement of people in CoPs, i.e. when management does not support the endeavors of CoPs or see value in its outcomes.

Ruikar et al. (2009) ague that organizations' leadership must be committed to promote participation and cultivate a "culture that values individuals and facilitates their growth whilst fostering a sense of community" (p.446). Elements for this are: the alignment of employees' development with the CoP's purpose and consequently the organization's too; the assessment of members' engagement in CoPs' practices, which allows employees to reflect about this alignment; and the recognitions and promotions for members' participation in CoPs and not in practices driven by individualistic goals, which are important to reinforce the desired behaviors. Moreover, technology and KMS are also supporters of CoPs, by assisting people and enabling their interactions. (Ruikar et al., 2009)

The concept of CoP has been criticized for failing to consider the presence of power (Wenger, 2010a). In a review of critiques to CoPs, Roberts (2006) points the aspects of the concept of power that lack consideration in the literature about CoPs; among these is the role of power distribution in the negotiation of meaning. Power is acknowledged when its relevance in the legitimacy of new CoP members' participation is explored (ibid.), however, Roberts (2006) suggests "meanings may continue to be merely a reflection of the dominant source of power" (p.627) when peripheral members remain in the same level of involvement, never gaining power to influence the negotiation of meaning. In relation to this, Coopey and Burgoyne's (2000) interpretation (cited in Roberts, 2006) is that meanings are the result of pressures from more powerful members (i.e. with organizational status and expertise) that hinder less powerful members' inclusion in the negotiations of meaning, in terms of both ability and willingness.

Another aspect is that of power in an organization' structure, which can influence the creation and sharing of knowledge in CoPs (Roberts, 2006). Roberts (2006) states that, when hierarchy and centralized power define a company' structure the participation of members in the negotiation of meaning is limited for those lacking authority; in contrast to decentralized organizations where it is more likely to find more variety in the people involved in the negotiations and consequently “there will be a greater variety in the possible range of knowledge created and shared” (Roberts, 2006, p.628).

Wenger (2010a) argues against the critiques that say CoP’s concept disregards power. The author explains that learning in a social context, the basis for CoP’s concept, cannot be disassociated from power (ibid.). The mere idea of claiming knowledgeability and the legitimization of such claims are issues of power (ibid.). An expression of power in CoPs is that of the representation of knowledge through artifacts like designs in the architecture field (ibid.).

Further issues in CoPs relate to trust and work relations (Roberts, 2006). Having considered trust as important for knowledge sharing and the influence of power in building trust, Roberts (2006) states that the nature of work relations and the level of trust are determinant in the success of CoP as a KM tool. Lack or low level of trust and conflicts or competition among co-workers are likely to hinder the desired behaviors for CoP’s effectiveness (ibid.). Hence, Roberts (2006) suggests: “communities of practice may be better suited to harmonious and trusting organizational environments in which workers are given a high degree of autonomy” (p.629). Additionally, Roberts (2006) questions the appropriateness of managing knowledge through CoP when considering the acceleration of today’s business activity, caused by the complex, competitive and changing landscape of business. If CoPs rely on building trust and mutual understanding, they might be subjected to a slow development not suitable for this era of acceleration (ibid.).

2.3.2 LMX theory and mentoring

The leader member exchange (LMX) theory is based on the relationship between leader and employee within the organization’s context. This relationship can range from ‘low-quality’ to ‘high-quality’ (Wayne and Green, 1993); and this will affect the knowledge transfer and the work experience (Graen and Scandura, 1987). From the nature of this interrelation will depend if the leader perceives the follower as competent, trustworthy, and motivated (Casimir et al., 2014).

According to the finding of Casimir et al. (2014) “organizations need to focus on improving the quality of their leader-member relationships” (p.3), as the members will try to mimic the attitudes and behavior of their managers (Bass et al., 1987). LMX allows the members to receive more supportive communication from the leader (Michael et al., 2005), and encourages collegial coaching, peer review, mentoring and other development practices (SDC, 2013).

Mentoring

According to SDC (2013) “mentoring is a method of teaching and learning” (p.96) where an experienced individual, or mentor, who has the information, skills or past experiences, instructs another less experienced individual, the mentee, who is in need of that particular knowledge. Mentors help mentees to develop their own competence and abilities by providing “explanations, guidance, coaching, and encouragement” (ibid., p.96). Besides mentor and mentee, another important part of mentoring is the relationship between them itself; which could be done by association or pairing, and will support the knowledge to be transferred (ibid).

> Most mentors are in a position to teach because they have developed expertise through years of practice in a particular field or organization – not because they desire to teach or have expertise in mentoring. (Swap et al., 2001, p.108)

It is estimated that well mentored new employees can have better job satisfaction and higher performance than those without mentors in the first three years in a new organization (SDC, 2013). Many also argue that mentor activities are enriching for both the mentors and mentees (ibid.). This practice is called peer mentoring; when the mentor is a peer who possesses the knowledge or skill. Peer mentoring is found to be more efficient and effective as the roles may interchange depending on the knowledge needed to be transferred (ibid).

According to Massingham's (2014b) findings, mentoring, as a voluntary activity for both mentors and mentee, involves a great level of informal-basis working. The LMX theory explained above supports that the mentoring is effective if there is a high-quality relationship (Casimir et al., 2014) and it struggles with a low-quality relationship, for instance, when the mentors feel that mentoring is forced upon them or they are not feeling respected, they will be reluctant to share knowledge (Massingham, 2014b); or when structuring the process (e.g. weekly meetings) because mentees find it restrictive or unnecessary (ibid).

2.3.3 Repositories and yellow pages

Repositories may be regarded as the main KM tool representing the objectivist epistemology of knowledge. Repository or platform technologies (e.g. intranets) have been distinguished in the literature as KMS based in this epistemology and used for knowledge storage and transfer (Newell et al., 2009). In a certain way, knowledge repositories contain a company's history of knowledge and it "will contain more than documents (document management system), data (database), or records (record management system)" (Dalkir, 2011, p.213). A compound of what was gathered from the experiences of the workers over time, what was proved to be useful for the organization' success, later codified and stored for its preservation and for leveraging on it when needed (Dalkir, 2011).

This tool is based in the idea that any person might find the knowledge useful at some point, and nor the identity of these persons or the time when they might need the knowledge are known (Newell et al., 2009). Hence, focusing in storing knowledge and allowing the search and retrieval by the person in need (ibid.). Searchability and accessibility of the repositories becomes then an important aspect, and with it, comes the need of effectively storing knowledge; a process that people sometimes find difficult and that they associate with companies' IT systems (Massingham, 2014a). Hence, challenges in the utilization of knowledge repositories are to ensure the relevance of their content, keep them updated, and organized (Raytheon, 2012).

According to Newell et al. (2009), the problems for the implementation of technologies like the repository, due to people's unwillingness or inability to capture and codify knowledge, reflect "that what is actually available on the organizational KMS may be trivial and unhelpful while the really important knowledge continues to reside in every day practices" (ibid., p.155). When considering that knowledge is more than what can be made explicit, repositories can also play a role in KM. Hartmann and Dorée (2015) suggest that repositories could support learning in organizations if they are organized by practices and indicate 'ambassadors', persons that can share the knowledge related to each practice. This concept of using repositories to find the knowledgeable people in an organization is what characterizes the skills yellow pages (Collison, 2004; Robinson et al., 2005; SDC, 2013). According to Collison (2004), "key to learning what others have done is to know who to ask, and being able to reach them easily […] key to [this] is a yellow pages or index of people's skills, experiences and contact details" (Ch1). A variation of the yellow pages can include information not only about the skills or area of expertise of a people, but also about what knowledge do they seek (Collison, 2004).

Yellow pages can assist learning in an organization by connecting people, but the right environment for this requires "a desire to learn and the willingness to share" (Collison, 2004, Ch10). Encouraging people to make use of the tool is important and updating and organizing the yellow pages are useful for such end, because it facilitates the utilization of the tool in a successful way (SDC, 2013). Including personal or more informal information in the yellow pages can serve this role of encouragement too, by creating a sense of familiarity (Collison, 2004). Collison (2004) suggests that establishing a rapport, building trust and working relationships are rendered easier if people identifies common experiences, challenges and social similarities through this personal information. Voluntary participation and management of the content in the yellow pages by the own individuals will help people to show what they want to be known for, which can in turn also promote use of the tool (SDC, 2013).

Even if these technological tools can enhance the process of searching for knowledge/experts (Collison, 2004), other methods can serve the same purpose. Collison (2004) suggests that in deficit of tools like the yellow pages, employees can find people with the knowledge they seek by asking others in the organization to point to the right person and then using their personal network.

2.3.4 Knowledge fairs and storytelling

Other practices that can support KM, in particular KT, are knowledge fairs (Gray, 2001; Liebowitz and Yan 2004; SDC, 2013) or share fairs (Robinson et al. 2005; O'Dell and Grayson, 1998) and storytelling (Dalkir, 2011; Massingham, 2014a; SDC 2013; Swap et al. 2001). These are briefly explained below:

Knowledge fairs

Knowledge fairs or share fairs can be used to foster knowledge sharing in organizations (Liebowitz and Yan, 2004; Robinson et al. 2005) and the building of relationships among co-workers to improve KT (Liebowitz and Yan, 2004). In these events, a company's knowledge is showcased by means such as stands or displays, presentations, demonstrations, workshops for experimental learning, videos (SDC, 2013), and other activities that enable interactions among participants, like mingling or conversations with employees involved in the showcase or other visitors (Gray, 2001; SDC, 2013). Networking can occur in knowledge fairs, when participants are interested in further exploring any discussed topics (Gray, 2001; O'Dell and Grayson, 1998; SDC, 2013). Examples for showcasing an organization's knowledge at knowledge fairs that can be found in the literature include the sharing of best practices, the firm's work and achievements (e.g. Gray, 2001; O'Dell and Grayson, 1998; SDC, 2013); although SDC (2013) points that any topic could be showcased.

Storytelling

Storytelling is a communication skill that if deliberately used can aid in the process of knowledge transfer (Massingham, 2014a; SDC, 2013). Stories and their implicit meanings can serve the transfer of highly tacit knowledge related to the norms, values and managerial systems of organizations (Swap et al., 2001). Swap et al. (2001) define an organizational story as "a detailed narrative of past management actions, employee interactions, or other intra- or extra-organizational events that are communicated informally within the organization" (p.103). The purpose of storytelling in an organizational context includes sharing information, encouraging desired behaviors and best practices, preventing to repeat mistakes, conveying the company's culture, and fostering KS and a sense of belonging (Dalkir, 2011).

Swap et al. (2001) mention the importance of the following aspects for effectively sharing knowledge: contextualization of the stories, their concreteness and their vividness quality. These, permit the listeners to establish connections to their personal experience, visualize the story and remember it more easily. In consequence, these stories "are more likely to be believed and acted upon than mere statement of policies and norms" (ibid., p.110). Due to this power of stories over abstract data and probabilities, an organization's knowledge can be reinforced when stories align with explicit statements, otherwise the lessons taken from the story can be prioritized (Swap et al., 2001).

2.4 Onboarding process

After recruiting a new employee, most organizations provide a management system, known as onboarding, in order to ease the newcomer's learning and integration (Saks et al., 2007). Klein and Polin (2012) define 'onboarding' as "formal and informal practices, programs, and policies enacted or engaged in by an organization or its agents to facilitate newcomer adjustment" (p.268) through which the new employee learns knowledge, norms, skills, behaviors, routines and attitudes required to become productive (Bauer, 2010). For an organization to benefit from the skills and qualities of the new employee, they need to support them through a 'comprehensive introductory process' (Snell, 2006).

There are two types of onboarding: formal and informal. The formal onboarding refers to the company's plan, including activities and tools, to assist the employee while adjusting to their new job. The informal onboarding refers to the process where the employee learns about their job and socialize without a specific organizational plan. (Bauer, 2010). Literature argues on the role of the new employee to facilitate their own process. For this the new employee must participate in the company's activities; make the time and effort to have conversations with the colleagues; complete their responsibilities and assignments; and try to build a relationship with their manager. (Bauer, 2010)

The duration of the onboarding process varies depending on the size of the organizations and the role of the new employee, normally the time designated is between one to six months (Raytheon, 2012). Laurano (2013) reports 90% of businesses believe that employees make their decision to stay with their employers within their first year of employment.

A successful onboarding will have significant benefits. According to Lahey (2014) the couple days before and after an employee starts in the company set the standards for their future. In the long term onboarding helps new employees adjust to their jobs by establishing better relationships to increase satisfaction; clarifying expectations and objectives to improve performance; and providing support (through feedback, coaching and follow-up) to help reduce unwanted turnover (Bauer, 2010; Raytheon, 2012). Additionally, onboarding contributes to better employee engagement (Snell, 2006). It is easy to see the value of the onboarding process as a result of developing a capable, comfortable and engaged employee (Lahey, 2014). "Companies that don't support a comprehensive introduction phase for new employees not only risk losing productivity generated by the employee but also losing their interest in the company." (Snell, 2006, p.32).

2.4.1 Pre-boarding

Some organizations extend the onboarding process even before the newcomer starts the new job. According to Lahey (2014), the new employees can absorb the information even before their first day; therefore, they suggest the pre-boarding should not be a complicated process, instead should be available online, through a portal or sent over email. During this period, companies tend to communicate their values and show insights into what is to come. Pre-boarding gives, to the new employees, an opportunity to interact with their future colleagues and an understanding of their future activities within the organization (ibid).

One of the practices that a company can provide while pre-boarding is a realistic job previews (RJPs). This practice helps the candidates gather large amounts of information about the organization and their upcoming job, preventing them from unmet expectation (Bauer, 2010). "RJP can be provided during recruitment and hiring or through more on-the-job experiences such as internships" (ibid., p.9). In Klein et al.'s (2015) view, those new employees who have done RJP tend to adjust better than those who do not.

2.4.2 Onboarding tools and practices

Klein et al. (2015) seem to understand the onboarding practices according to the dictionary definition. Oxford Dictionaries (2019c) defines practice as "the customary, habitual, or expected procedure or way of doing of something". In this sense, these practices are the activities that are part of what Bauer (2010) calls the 'formal onboarding'; which comprise putting in place programs and policies, and providing resources to the new employees (Klein and Heuser, 2008; Klein et al., 2015). However, excluding the activities done by the newcomers for contributing to their own socialization (Klein et al., 2015). Table 9.1 in Appendix I shows the different tools and practices used during onboarding processes that researchers have identified (Bauer, 2010; Klein and Heuser, 2008; Klein et al., 2015; Raytheon, 2012; Snell, 2006; Weinstock, 2015).

Even though the onboarding process has a positive feedback for the new hires (Snell, 2006), there is a lack of research about which specific tool or practice best facilitates the learning and socialization (Klein et al., 2015). The onboarding might have similar practices and tools for all the roles, but Lahey (2014) suggests that the activities and training should be aligned with the new employee's role and needs. It is also important to track and get feedback about the progress to determine whether changes need to be made to the employees' onboarding process or to that of future employees (ibid).

2.5 Job satisfaction and motivational theories

Job satisfaction can be defined as a way to measure employee' contentedness with their work (Spector, 1997). The concept of job satisfaction has been explored by many over the last century, yet researchers have defined different theories and motivation factors with no consensus in place, some are based on the emotions, others on the behaviors, and a few on the employee's perceptions. Nevertheless, it is apparent that the literature has linked job satisfaction and motivation. Behera et al. (2011) based on a theoretical review indicate that motivation is an outcome of job satisfaction. Additionally, the motivational theories also suggest this connection. In the literature, the main theories of motivation are grouped into content and process theories. The content theories are those that assume people have a set of needs and goals which they pursue (Oyedele, 2010), e.g. Alderfer's ERG theory (Alderfer, 1972), Herzberg's two factor theory (Herzberg et al., 1959), Maslow's hierarchy of needs (Maslow, 1943), McClelland's achievement theory (McClelland, 1967), McGregor's theories X and Y (McGregor, 1989. They are also associated with the view that gives importance to determining what motivates individuals (Oyedele, 2010). The process theories assume individuals' needs influence and direct their behavior in order to achieve those needs (Oyedele, 2010), e.g. Adams' equity theory (Adams, 1965), Porter-Lawler model (Lawler and Porter, 1967), Goal setting theory (Locke, 1968), Reinforcement theory (Skinner, 1938), Vroom's expectancy theory (Vroom, 1964). They are associated with the view that gives importance to determining how and why are individuals motivated (Oyedele, 2010). Regardless of the type of theory, many of them stablished the aforementioned connection; satisfaction of these needs or goals, or the strive to satisfy them, leads to motivation.

Cranny et al. (1992) describe job satisfaction as “an affective (that is, emotional) reaction to one’s job, resulting from the incumbent’s comparison of actual outcomes with those that are desired (expected, deserved, and so on)” (p.1). This ‘comparison’ is made in regard to the different factors that the literature has linked to job satisfaction. Sang et al. (2009) based their study on the identification that previous research on job satisfaction had been done in relation to its diverse aspects (e.g. working conditions, pay, colleagues), and that the overall job satisfaction was positively correlated with these facets. Similarly, the research of Behera et al. (2011) indicates that throughout the literature, job satisfaction has been associated to certain determinant factors. Moreover, theories and research on motivation have defined factors, related to the workplace and which are internal or external to employees, that can motivate employees. So, on the basis of the correlation between job satisfaction and motivation, it could be assumed that these motivational factors could also represent facets of job satisfaction.

Criticism of motivational theories

Despite the commonly accepted above theories, it is important to understand that these theories are not conclusive (Mullins, 1996), therefore, all have their criticism. Ahmed (2016) presents a critical analysis arguing that the major downside is that the motivational theories address individuals instead of groups and assume that “everybody has the same needs and follow the same decision-making process” (ibid.). Freedheim (2003) argues that the motivational theories do not consider different variables (e.g. culture, norms and social influence) that may affect the success or failure of the motivational process. Another criticism is that these theories depend on the self-perception of the individual, which could change according to different circumstances, and assume that all individuals are motivated by the same motivators (ibid.). Lastly, Locke and Latham (2004) and Freedheim (2003) suggest that there should be diagnostic models and theories that facilitate the moment and place when a particular motivational intervention should work, thereby helping the organizations use their resources and efforts more efficiently.

It could be assumed that the concerns of the critics have incited researchers to study several of the theories considering diverse aspects like employees’ generation or field of work. Studies of job satisfaction and motivational theories have determined factors associated with job satisfaction and employees’ motivation (and in some cases their retention), for focus groups of employees belonging to generation Y (e.g. Grubbström and Lopez, 2018; Kultalahti and Viitala, 2014). or working in the architecture and civil engineering field (e.g. Oyedele, 2010; Sang et al., 2009).

2.5.1 Job satisfaction of millennials

Novel research state that millennials have different psychological factors from previous generations (Furnham et al., 2009). The findings in different studies suggest that the motivation for millennials relates to their need for autonomy, competency, development and relatedness; and how this generation values work, and its environment (Grubbström and Lopez, 2018; Kultalahti and Viitala, 2014). Other factors contributing to job satisfaction are:

> Interesting work content, flexibility with timetables and working hours, a possibility to learn and develop at work, a good atmosphere in the community of work and a nice supervisor (Kultalahti and Viitala, 2014, p.576)

Many particularities can be extracted from the previous research. Behera et al. (2011) indicate that employees recognize the opportunities for promotion and supervisory support as main source of job satisfaction, while work life balance becomes critical to avoid employee burnout. Research on millennials suggest that these characteristics also apply to them. Grubbström and Lopez (2018) determined millennials' interest in having leaders that act as role models and coaches. Additionally, Kultalahti and Viitala (2014) found that employees form generation Y, even if eager to work, are "not ready to sacrifice their private life for work" (p.576); thus, concluding that work-life balance is a "very critical factor" (ibid., p.576) for millennials. There is also an emphasis made into the need to work for a cause and the will to own their own business, that is not previously found in other generations (Grubbström and Lopez, 2018). Even if financial rewards are essential in attracting millennials to a job (Deloitte, 2018), this generation seldom considers salary in relation to what demotivates them (Kultalahti and Viitala, 2014).

2.5.2 Job satisfaction of professionals in the architecture and construction industry

The extensive levels of effort that the professionals within the architecture and construction field must endure to deliver a design on time, with the required quality, meeting the client's need and committed to seek new ideas, will add complexity to the nature of their motivation (Oyedele, 2010). It is important to establish that most of the motivational attributes are related to the aspects of the job and how the company and the managers work, rather than the inherent work of architects (Oyedele, 2010). Sang et al. (2009) state that the most important factor for the profession is the way the practice is managed. Oyedele (2010) concludes by saying:

> It is acknowledged that motivation is a complex, subjective and unstable phenomenon, and do fluctuate enormously based on organizational changes, however, owners of design firms and their design managers play an important role in establishing these factors that have been revealed to influence motivation. They must learn to understand and deal effectively with AE [architects and engineers] motivation if they wish to shepherd their organizations to competitive success. (p.194)

2.5.3 Work motivation factors (WMF)

The following factors consist in a combination of job satisfaction and motivational attributes extracted from literature. These attributes are aspects that should be present in the organization or regarded as positive by the employees in order to promote the job satisfaction and motivation of millennial professionals in the architecture and civil engineering (ACE)[5] field. Table 2.2 shows the main six motivational factors that affect the job satisfaction and motivation of millennial professionals in the architecture and construction industry, and the different attributes that represent each factor, as explained by different authors. In the table, similar attributes of different authors are grouped. One factor can have multiple attributes. For the methodology concerning this categorization see Section 3.2.2.

Table 2.2. Work motivation factors for millennial professionals in the architecture and construction industry.

Factor	***Attributes***	***Author***
F1 **Working conditions**	Organization's equity in management of all employees.	Oyedele, 2010.
	The way the practice is managed.	Sang et al., 2009.
	Adequate freedom and tolerance in completing project work.	Oyedele, 2010.
	Flexibility at work.	Kultalahti and Viitala, 2014.
	Project provides a challenging atmosphere.	Oyedele, 2010.
	Sufficient challenges, but a not overly demanding job.	Kultalahti and Viitala, 2014.
	Content of work and work projects that vary.	Kultalahti and Viitala, 2014.
	Job content.	Behera et al., 2011.
	Contribute to an important cause.	Grubbström and Lopez, 2018.
F2 **Organizational support**	Satisfactory organizational commitment to employees' career development.	Oyedele, 2010.
	Possibility of growth and development.	Kultalahti and Viitala, 2014.
	Open interaction between superiors and subordinates.	Oyedele, 2010.
	Industrial relations between management and workers in the practice.	Sang et al., 2009.

[5] This research uses 'architecture and civil engineering (ACE)' interchangeably with 'architecture and construction', to refer to the industry, field, or the professionals of such area.

	Employees' immediate line manager and a coaching leadership.	Grubbström and Lopez, 2018.
	Satisfactory organizational concern about employees' safety and welfare.	Oyedele, 2010.
	Job security.	Behera et al., 2011.
	Recognition of individual contributions and efforts.	Oyedele, 2010.
	The attention paid to the suggestions the employees make.	Sang et al., 2009.
	Employee empowerment and involvement.	Behera et al., 2011.
	General management with the opportunity to integrate efforts from others.	Grubbström and Lopez, 2018.
	Appropriate evaluation and feedback mechanisms on project.	Oyedele, 2010.
	Be responsible for outputs.	Grubbström and Lopez, 2018.
F3 **Design process efficacy and working relationships**	Harmonious working relationship within design team and co-workers.	Oyedele, 2010.
	Colleagues and climate; nice work community.	Kultalahti and Viitala, 2014.
	Social relations.	Behera et al., 2011.
	Minimal design changes or variations; compatibility of design decisions with project objectives.	Oyedele, 2010.
	Working methods.	Kultalahti and Viitala, 2014
F4 **Efforts recognition and rewards**	Project efforts/contributions lead to employees' retention and firm's survival.	Oyedele, 2010.
	The recognition employees get for their work.	Sang et al., 2009.
	Appropriate incentives and rewards for project efforts/ contributions.	Oyedele, 2010.
	Rewards (monetary or time).	Kultalahti and Viitala, 2014.
	Pay & promotion.	Behera et al., 2011.
F5 **Autonomy**	Self-sufficiency.	Kultalahti and Viitala, 2014.
	Autonomy.	Behera et al., 2011.
	The willingness to start and create their own business.	Grubbström and Lopez, 2018.

F6 **Work-life balance**	Satisfactory organizational concern about employees' safety and welfare.	Oyedele, 2010.
	Happiness in private life; everything is fine at home; and work-life balance.	Kultalahti and Viitala, 2014.
	Emotional state.	Behera et al., 2011.
	Balance between personal needs, family needs, and the requirements of a career.	Grubbström and Lopez, 2018.

Working condition

This factor's description includes the motivational attributes of organization's equity in management of all employees, adequate freedom and tolerance in completing project work, and project that provides challenging atmosphere (Oyedele, 2010); the way the practice is managed (Sang et al., 2009); flexibility at work, sufficient challenges, but a not overly demanding job, and the content of the work (Kultalahti and Viitala, 2014); job content (Behera et al., 2011); and contribute to an important cause (Grubbström and Lopez, 2018).

Hence, in order to promote the job satisfaction and motivate millennials in the architecture and construction field, there must be a favorable working condition which includes first, the physical environment and tangible resources (Oyedele, 2010); second, an organizational culture that supports tolerance to mistakes, flexibility, equity, and good communication (Kultalahti and Viitala, 2014; Oyedele, 2010; Sang et al., 2009); finally, the content of the work should engage and constantly vary in order to avoid the feeling of stagnation (Behera et al., 2011; Kultalahti and Viitala, 2014; Oyedele, 2010). In relation to the latter, Grubbström and Lopez's (2018) state that the work must be in service of an important and challenging cause. The employees see challenging assignments as an opportunity to learn and develop (Kultalahti and Viitala, 2014).

Organizational support

The organizational support factor contains a large number of attributes. Starting with satisfactory organizational commitment to employees' career development, open interaction between superiors and subordinates, satisfactory organizational concern about employees' safety and welfare, recognition of individual contributions and efforts, and appropriate evaluation and feedback mechanisms for projects (Oyedele, 2010) all of which are efforts from the company to motivate and develop the employee. These attributes are accompanied by others like employees' possibility of growth and development (Kultalahti and Viitala, 2014); industrial relations between management and workers in the practice, the attention paid to the suggestions that employees make, the employees' immediate line manager (Sang et al., 2009); job security, employees' empowerment and involvement (Behera et al., 2011); a coaching leadership, general management that creates the opportunity to integrate efforts from others, and the possibility for employees to be responsible for outputs (Grubbström and Lopez, 2018).

This motivational factor refers to three aspects. First, to the existence or lack of the following, in the company: a coaching leadership that supports development, participation and feedback; a mentoring relationship for the employees to seek attention to professional and personal problems; discussions about the employees' role and objectives; and/or guidance for the employees provided by their supervisors. All these relate back to the relationship between the leader/manager and the employee and are a combination from the different literature Behera et al. (2011), Grubbström and Lopez (2018), Kultalahti and Viitala (2014), Oyedele (2010), Sang et al. (2009). Second, organizations need to facilitate the skills development of employees through continuous training, which will prepare them for future roles (Kultalahti and Viitala, 2014; Oyedele, 2010). According to Wetprasit (2006) new employees seek career prospect over salary, therefore companies should promote new knowledge acquisition while adopting career development policies in alignment with the needs of the employees. Third, there must be a system established to give appropriate evaluation and feedback on project and individual performance as employees are currently expecting to be communicated about their evaluation criteria and receive suggestions for improvement (Grubbström and Lopez, 2018; Oyedele, 2010).

Design process efficacy and working relationships

The motivational attributes connected to this factor are harmonious working relationship within design team and between co-workers, minimal design changes or variation, compatibility of design decisions with project objectives (Oyedele, 2010); colleagues and climate, nice work community, working methods (Kultalahti and Viitala, 2014); and social relations (Behera et al., 2011). This factor reflects on the cohesion of the design team and the efficacy of fulfilling the tasks; the organization should foster a healthy work environment filled with teamwork, understanding of shared goals and project objectives, good communication, trust and active participation (Oyedele, 2010; Kultalahti and Viitala, 2014). Employees link many motivation attributes to their closest working community, the manager or supervisor being an enabler of a good climate and iterations (Kultalahti and Viitala, 2014). Kultalahti and Viitala (2014) suggest that having skilled supervisors that build good teams and work environment are important to support the work motivation in organizations.

Efforts recognition and rewards

Efforts recognition and rewards factor is associated with the motivational attribute of project efforts/contributions of employee that lead to employees' retention and firm's survival, appropriate incentives and rewards for project efforts/contributions (Oyedele, 2010); rewards (monetary or time) (Kultalahti and Viitala, 2014); the recognition you get for your work (Sang et al., 2009); pay and promotion (Behera et al., 2011).

The design profession involves long hours culture in terms of practice to meet the clients' demands, so recognizing employee's efforts through appropriate rewards and incentives would affect their motivation and creativity (Oyedele, 2010). The factor also refers to the expectancy theory where the employees will get motivated by results

(Vroom, 1964). However, Oyedele (2010) states that the rewards do not need to be monetary as salary, other forms of recognition can be time-off from work, promotion, work trips, sponsored vacations, funded trainings, free meals, and others; adding that "even symbolic and verbal recognition for job well done could be very effective" (p.192).

Autonomy

The sense of autonomy comes from the empowerment given to the employee and the involvement that they take. Both Kultalahti and Viitala (2014) and Behera et al. (2011) see it as the feeling of self-sufficiency while tackling a new project or task. While Grubbström and Lopez (2018), found that millennials have the willingness to start and create their own business due to values related to independency and being free from organization's restrictions. The factor is also related to the attributes of continuous improvement, flexibility at work and the employee's interaction with the managers, which would enable the ability to act according to their own value and capacity (Behera et al., 2011; Kultalahti and Viitala, 2014).

Work-life balance

The motivational attributes for this factor refer to satisfactory organizational concern about employees': safety and welfare (Oyedele, 2010); happiness in private life, everything being fine at home, work-life balance (Kultalahti and Viitala, 2014); emotional state (Behera et al., 2011); balance between personal needs, family needs, and the requirements of a career (Grubbström and Lopez, 2018).

Grubbström and Lopez (2018) found that millennials do not separate being an employee from their lifestyle; so, they want enough time to do the things that they like for example: meeting relatives and friends, their hobbies, exercising, just to name a few. This is kind of contradictory to the design profession which, as was previously stated, involves long hours culture which leads to burn outs and job dissatisfaction.

2.6 Employee retention

Voluntary turnover in knowledge-intensive firms is a threat to the productiveness and sustainability of an organization because departing employees take away with them a great deal of acquired knowledge and expertise gained through experience (Mitchell et al., 2001). According to Behera et al. (2011), the cost of replacing an employee is estimated to be twice an individual's annual salary. Further, training and developing new recruits to bring them to the desired level of performance requires heavy investment in terms of time, money and other resources (Mitchell et al., 2001).

In literature, two main factors for employee retention have been identified: job satisfaction and job alternatives. There is a positive relation between employees' job satisfaction and retention (Behera et al., 2011). Sang et al. (2009) explain that organizations must support employees and remove or fix elements that may create dissatisfaction in order to improve retention. Once the employee becomes dissatisfied with their job, they presumably start looking for other work alternatives (Mitchell et al., 2001). Mitchell et al. (2001) state that “violating initial job expectations can decrease trust, cause anger, and precipitate the turnover process” (p.97).

Lee and Mitchell (1994) propose the unfolding model which describes four different paths that employees can take when leaving their job. Path 1: following a plan (previously thought through, before or during the employment); path 2: leaving without a plan (resulting from an unexpected event); path 3: leaving for something better; and path 4: leaving an unsatisfying job. All these paths are constantly being taken by employees and happen with different speeds, which suggests a vast diversity of the reason for voluntary turnover (ibid.).

Based on Mitchell et al.’s (2001) research on the unfolding model, the authors conclude that the extent to which employees decide to remain in their job relates to three elements: ‘links’ (their attachment to coworkers, projects, etc.); ‘fit’ (their feeling of belonging in the company/job); and ‘sacrifice’ (what they would be giving up if they resign, e.g. pension, training). Many employees remain in the organization because of the attachments and connections they have to people (Reichers, 1985). Leaving their job also means that the individuals have to often sacrifice routines, perks, or projects that they have grown familiar with (ibid.).

3 Method

This chapter aims to outline the methods used during the present study. It explains the type of research, its strategy, approach and design; the research delimitation; how the literature review was done; and how the data was collected (i.e. the case study) and analyzed. The chapter finalizes with a critical evaluation of the used methodology and the pertinent ethical considerations.

3.1 Social research

Knowledge is considered as embodied by people and embedded in practices. In order to understand the cause-effect relationship between onboarding tools and practices, job satisfaction (i.e. work motivation factors) and retention of millennial professionals in the architecture and construction industry, a social research approach was undertaken. The term 'social research' is used when investigating topics related to the social sciences; it considers the occurrences in society and analyzes and interprets these with ideas from social sciences (Bryman, 2012). Figure 3.1 explains the elements of the process of this social research (i.e. case study, and data analysis); there is in light gray, the method used in each process. On some occasions, there might be a subdivision of the method depending on the goal (i.e. in the literature review, there is a review of the theories and definitions, and on the other hand, a factor analysis sought to identify the work motivation factors).

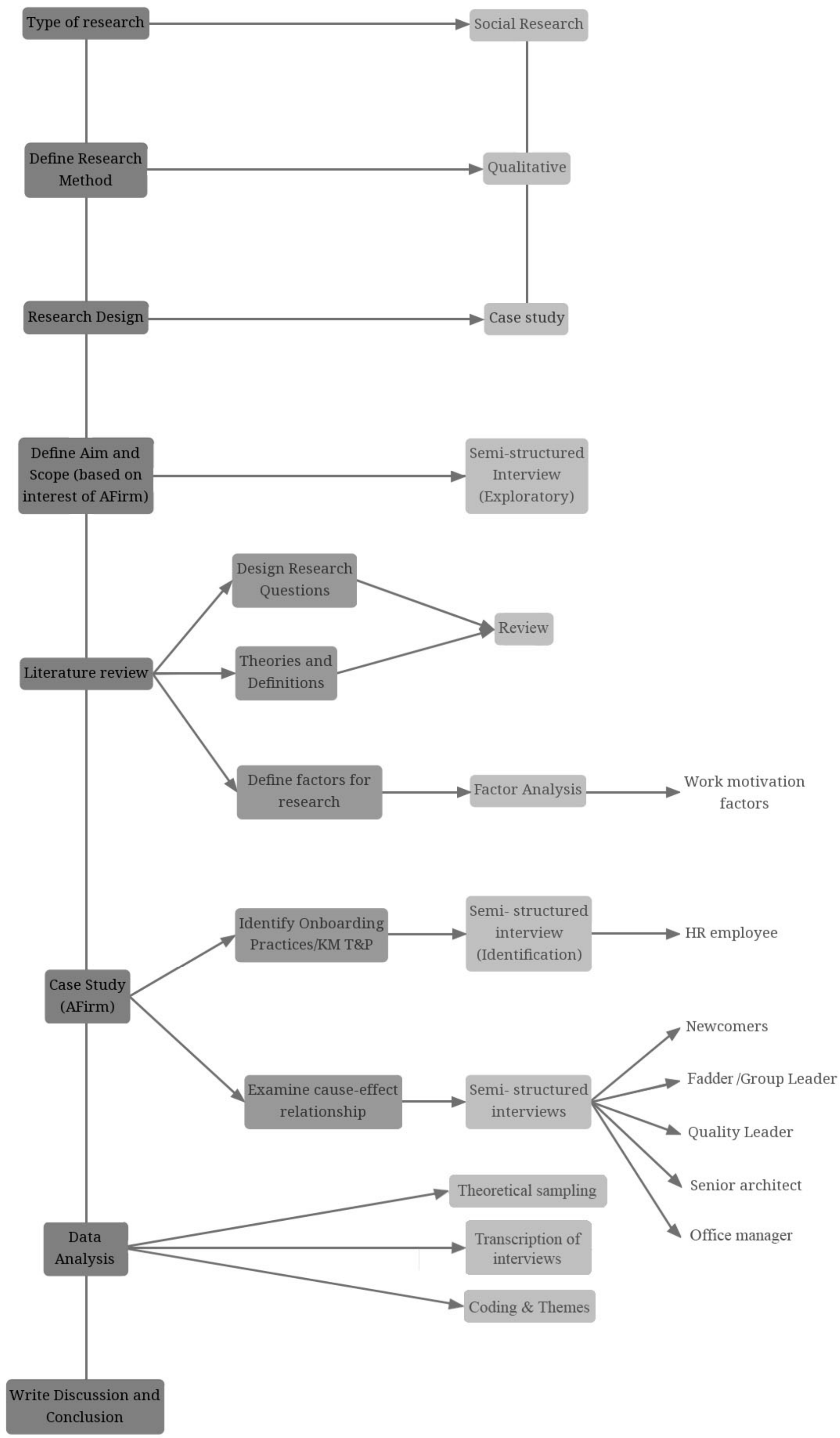

Figure 3.1. Overall research methodology of the present study.

3.1.1 Research strategy: qualitative

In contrast to existent studies that connect KM and job satisfaction, this research was done with a qualitative strategy in order to be able to examine in detail the correlation between KT tools and practices, job satisfaction and retention. The reason behind using this method was because it enables in-depth studies about conducts, meaning-making process, and provides a contextual exploration (Patton, 2015) without being constraint by:

> the inability to establish the necessary research conditions (as in an experiment); the unavailability of sufficient data series or lack of coverage of sufficient variables (as in an economic study); the difficulty in drawing an adequate sample of respondents and obtaining a sufficiently high response rate (as in a survey); or other limitations such as being devoted to studying the past but not ongoing events (as in a history) (Yin, 2011, p.6).

A qualitative research normally focusses on words rather than quantities, in the collection and analysis of data (Bryman, 2012). In literature, this research strategy is generally considered: inductivist, though it can also be abductive (see the section below); constructionist; and interpretivist. The critiques that have built up suggest that qualitative research is too impressionistic and subjective, it is difficult to replicate, has problems of generalization and lacks transparency (Bryman, 2012).

3.1.2 Research approach: abductive

Bryman (2012), citing N. Blaikie (2004a) and Charmaz (2006) as examples, argues that the kind of reasoning involved in a qualitative research is better described as abductive reasoning instead of inductive. In an abductive reasoning, the researchers form a theoretical framework based on observations and studies of the participant's perspectives in order to speculate on the best explanation (ibid.).

Abductive reasoning was used to overlap the theories in order to sustain this research. Hence, the literature was reviewed and adjusted in several opportunities, based on the collected and analyzed data. First, an initial review of KM, millennials and job satisfaction was done when a research interest was proposed. Second, after the *exploratory interview* of *phase 1* of the data collection, the review was expanded to include topics that were not contemplated at the beginning (e.g. millennials, job satisfaction of architecture and construction professionals). Third, when the *identification interview* was conducted and analyzed, a review of specific KM tools and practices was added. Fourth, literature was adjusted and topics were discarded twice; once, after *phase 2* of data collection and analysis of half of the interviews, and another time, posterior to the analysis of the rest of the interviews.

3.1.3 Research design: case study

The research design provides the structure for the collection and analysis of the data. The research design chosen reflects on the decisions made by the researchers about the process, the generalization, the connections between variables, and its temporality (Bryman, 2012).

The research design consisted in the case study of the OP of AFirm's office in Gothenburg, and its effect in job satisfaction and retention of a specific sample (millennials in the ACE field). As Bryman (2012), paraphrasing Stake (1995), states a "case study research is concerned with the complexity and particular nature of the case in question" (p.66). To address this concern in this study, the case was studied in depth for a specific group by collecting data from different roles (newcomers, newcomers-intern, other actors in the OP) and documents, and analyzing each onboarding T&P. The case was chosen as a 'representative case' (Bryman, 2012) because it could exemplify the OP in other offices from AFirm, since the implemented T&Ps were expected to be the same across offices. However, this was not exactly the case since it was found that some variations exist, which means the OP at the Gothenburg office became a 'unique case' (Bryman, 2012). Moreover, this turn of events suggested a possible further study for comparing the OP at the different offices of AFirm.

3.1.4 Research delimitation

The present study has a delimitation concerning the researched topic. First, the research focuses on a specific period, the onboarding process, and the tools and practices implemented only during this process. Second, in order to examine the correlation of the tools and practices and job satisfaction, it was decided to analyze the work motivation factors that lead to job satisfaction. Previous studies have identified these factors (e.g. Kultalahti and Viitala, 2014; Oyedele, 2010), hence a corroboration or identification of these is not within the scope of the present research. Third, another interest of research of this study is the relation of the tools and practices with job satisfaction and employee retention. However, the examination of the connection with employee performance is outside the scope. Figure 3.2 shows existent research and correlations established in the literature related to HR, KM, millennials and architecture & civil engineering (ACE) professionals. Figure 3.3 reflects the delimitation of the present study, which examined the onboarding process from a KM perspective and the effect of the tools and practices in the critical factors of millennials in the ACE field, namely job satisfaction and employee retention. The green arrows show the existent connections supported by other studies, which are not going to be explored in this research; the red arrows indicate the under-researched correlations, which were explored in the present study; and the yellow arrows indicate the connection of job satisfaction and employee retention, which was also of interest in this study because it was deemed conflicting since the relation is made by studies within the ACE field (Sang et al., 2009) but is sometimes regarded non-relevant for millennials (Qualtrics and Accel, 2016).

Additional delimitations relate to the subjects of study in the present research. The interviewees representing the newcomers' perspectives were employees from generation Y. They, as all millennials, were born between 1981-1996 (Dimock, 2019). Moreover, they were professionals of the architecture and construction industry. Although, AFirm employs professionals of several fields of work like IT, economics and marketing, the interviewees had professions related to architecture, landscape design, civil engineering, and project management, some with roles like group managers, project managers, and quality leaders.

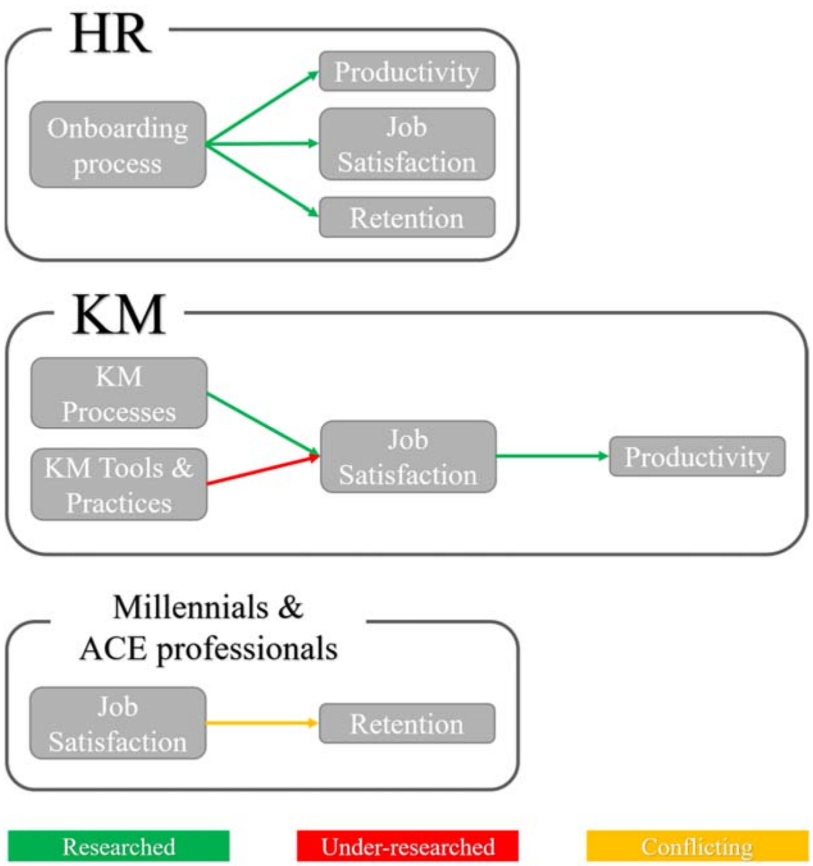

Figure 3.2. Existent research.

There are also limits regarding the selection of the T&Ps that were assessed. A discrimination was made in terms of which of the T&Ps to evaluate. The onboarding process at AFirm had a strong connection with learning on the job, which came with the implementation of several KM T&Ps. The identified onboarding T&Ps were selected based on their function for achieving the onboarding objectives, which excluded the other KM T&Ps used during the OP that aim at different objectives than those from the OP, e.g. AFirm's intranet or the company's annual day, which resembles the Introduction Day but involves all the staff of the firm, not just the newcomers.

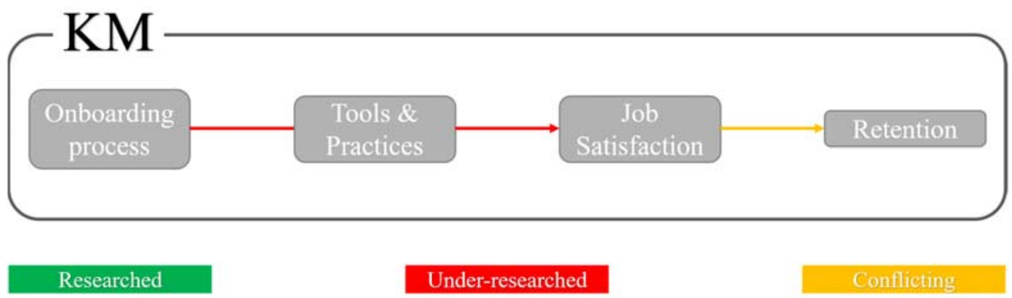

Figure 3.3 Research delimitation of present study.

3.2 Literature review

A literature review was done to define a theoretical framework for the research. Four main topics were reviewed: knowledge management (comprising knowledge transfer, knowledge management tools and practices); onboarding process (including purposes and onboarding tools and practices); job satisfaction and employee retention (both in design and construction firms, and for the millennial generation). The used literature, searched through the online Chalmers Library and Google Scholar, consisted mainly of journal articles, also some books and in rare cases online resources. The literature was review and adjusted according to the gathered and analyzed data.

3.2.1 Identification of onboarding tools and practices

A review was done of the possible tools and practices used in onboarding processes in order to identify the tools and practices used in AFrim's onboarding. Throughout the literature the onboarding tools and practices have been referred to with different terms, on some occasions differentiating between them and in others not. Some of these terms are: 'practices', which include both activities and 'resources' (Klein and Heuser, 2008; Klein et al., 2015); 'materials and activities' (Weinstock, 2015); 'support tools' and 'processes' (Bauer, 2010); 'tools', for both activities and tools (Raytheon, 2012). In Table 9.1 in Appendix I there is a list of some of these tools and practices found in the literature, sorted in Klein and Heuser's (2008) categorization.

3.2.2 Factor analysis: work motivation factors

For the identification of the relevant factors that lead to job satisfaction that were observed in the case study (see Section 2.5.3), a factor analysis was conducted, which combined job satisfaction and motivational attributes extracted from literature. The referred literature includes studies in which the different motivational theories were analyzed and applied to millennials (Grubbström and Lopez, 2018; Kultalahti and Viitala, 2014) or professionals in the architecture and construction industry (Oyedele, 2010); a research of the aspects that influence job satisfaction of architects (Sang et al., 2009); and a comprehensive theoretical review that identifies the determinants of job satisfaction (Behera et al., 2011). Factor analysis is a statistical method to describe the different variables in a context that leads to data reduction, removes redundancy, and maintains as much as possible the original information (Oyedele, 2010). The scope of this paper does not validate this factor analysis as this is not the main research.

3.3 Case study

The case was created in two phases of data collection. The first phase consisted in understanding AFirm, the onboarding process (OP) and identifying the tools and practices used during the OP. Having set the context for the OP, the second phase consisted of interviews with AFirm's employees with the aim of answering the research questions. The following sections 3.3.1 and 3.3.2 will cover the methodology regarding these two phases.

3.3.1 Case study – phase 1

Phase 1 involved collecting data from AFirm's website, two interviews with employees of AFirm, and printed and electronic resources provided by some of the interviewees. First, the information from the website was used to establish the general characteristics of the firm (structure, size, goals, locations). Second, the two interviews provided data relating to the general characteristics and knowledge management of the firm, and the process, tools and practices (T&Ps) for onboarding. Third, the printed and electronic resources gave more detailed information about the OP, some of the identified T&Ps and the people involved in the OP.

The first interview was of an *exploratory* nature. It helped to understand how AFirm works, how they manage knowledge, the challenges they have in relation to knowledge management and their interest in the research topic of the present study. It provided a general idea of the onboarding process at AFirm and led to the contact of an employee in Human Resources, who was also interviewed to construct this case, and other two employees, who provided other contacts for phase 2. The interview was done face to face in AFirm's office in Gothenburg and had a length of 50 minutes. It was a semi-structured interview, that was recorded and, there were two interviewers, one of which took notes. The interviewed employee, referred to as Arch01, from now on, is an architect and director of research & development. Arch01 has been working at AFirm for 11 years, in several positions, and is one of the 122 majoritarian shareholders of the firm.

The second interview was mainly focused on understanding the OP in more detail. It allowed the *identification* of the KT tools and practices and the timeline of the onboarding process at AFirm. Additionally, some of the questions concern the measurement of job satisfaction and employee turnover at AFirm and the reasons for this turnover. The interviewee, from now on referred to as HR01, is an HR manager and leadership skills developer, involved in the development and implementation of the OP. HR01 works at AFirm's office in Stockholm and had been part of AFirm's staff for a year and two months at the time of the interview. This interview had a length of one hour, it was semi-structured, conducted through as Skype videocall and recorded.

There was one interviewer and a second person taking notes. The details of the interviews in this phase are gathered in Table 3.1.

Table 3.1. Interviews and interviewees' details – Phase 1.

Interviewee identification	Role in the company	Date and length of interview	Format of interview
Arch01	Architect and Director of research & development	13 Feb. 2019, 14.00h, 50 min.	Face-to-Face
HR01	HR manager and Leadership skills developer	05 Apr. 2019, 15.30h, 60 min.	Skype Videocall

Additional data about the OP and the tools and practices was collected through electronic resources provided by HR01 after the second interview, and the onboarding Booklet provided by the office manager (OM01). These documents are listed in Table 3.2. Further, results of this interview were the support of the research with six hours from AFirm HR's budget to cover the time of the employees that wanted to participate in the interviews; also, the contact of new employees by HR01, to inform about the present study and encourage participation.

Table 3.2. Analyzed documents.

Document. Format	Description
Agenda of Introduction Day. Word document.	Agenda of the event for welcoming all the new employees at AFirm, that took place on Gothenburg on April 2nd.
Checklist. Word document.	Checklist of the activities planned for the newcomer during the OP, organized by the period in which they should be done and indicating the responsible to carry out the activity.
Onboarding Platform. Online platform.	Online access to the newly launched Onboarding Platform.
Onboarding Sum Up. Email.	Communication from HR to the office managers regarding the phases of the OP at AFirm and their purpose.
Onboarding booklet- Gothenburg office	Pamphlet containing general information about AFirm, a checklist for onboarding and a map of the office.

3.3.2 Case study – phase 2

Having identified the tools and practices that would be assessed, and the people involved during the onboarding, the next phase was to conduct the interviews necessary to answer the research questions. The first step then, was to contact the employees to be interviewed. While waiting for any result from the contact made by HR01 to new employees, AFirm's website and LinkedIn were used to identify possible candidates, who were later e-mailed. Besides, some employees were also reached by e-mail through the original contact information provided by Arch01. Two types of employees were targeted, with the following profiles:

> **A)** employees with less than two years at AFirm, between 23 and 38 years old (millennials), and with professions related to architecture, design, landscape design, construction engineering, etc., to inquiry about their experience as newcomers; and
>
> **B)** employees who might have been involved in the OP as mentors/buddies, group leaders, quality leaders or senior co-workers of a new employee, regardless of age and with more than two years at AFirm, and with professions similar to the previous or project managers.

These profiles were specified in the e-mails so the employees could know if they fit any of the profiles. In the end, the interviewed newcomers were between 27 and 38 years old and had roles in the company as: architects, cost calculators, urban planners or structure engineers. For keeping the anonymity of the interviewees newcomers' roles in the company were not specified in relation to the pseudonym (see Section 3.6). Table 3.3 shows the details about each of the interviews of this phase. It is worth noting that some of the interviewees had professions that are not related to design, however, they were included in the study because it was considered that they were also subjected to the conditions and requirements of the architecture and construction industry by working at AFirm.

Table 3.3. Interviews and interviewees' details – Phase 2.

Interviewee denomination[6]	***Years at the company***[7]	***Role in the company***[8]	***Date and length of interview***	***Format of interview***
Newcomer (NW01)	2y 1m	-	30th Apr. 2019, 16.00h, 1h45min	Face-to-Face

[6] The denomination given to the interviewees is related to their role in the onboarding process.

[7] y=year(s); m=month(s).

[8] Where the role indicates "intern" it refers to the previous experience of the newcomers as interns at AFirm.

Newcomer (NW02)	0y 1m	-	02 May 2019, 11.40h, 50min.	Face-to-Face
Newcomer (NW03)	1y 4m	- intern	6th May 2019, 16.00h, 1h30min.	Face-to-Face
Newcomer (NW04)	1y 3m	- intern	7th May 2019, 12.45h, 1h.	Face-to-Face
Newcomer (NW05)	1y 1m	-	7th May 2019, 14.00h, 1h.	Face-to-Face
Newcomer (NW06)	0y 9m	- intern	8th May 2019, 10.00h, 50min.	Face-to-Face
Newcomer (NW07)	1y 1m	-	9th May 2019, 10.00h, 45min.	Face-to-Face
'Fadder[9]'/ Group leader (GL01)	16y 2m	Head of project management/ Group leader	2nd May 2019, 10.20h, 1h	Face-to-Face
Quality leader (QL01)	7y 0m	Quality specialist/ Building engineer	8th May 2019, 14.15h, 45min.	Face-to-Face
Senior co-worker (S01)	35y 11m	Senior architect	9th May 2019, 13.30h, 1h.	Face-to-Face
Office manager (OM01)	32y 0m	Deputy manager director/ Sustainability specialist	9th May 2019, 15.00h, 1h20h.	Face-to-Face

All the interviews were semi-structured with open questions in order to gain better insights on how the tools and practices are being used and how they influence the work motivation factors. Two different interview guides were designed. The guide for profile A had four sections: 1) about the interviewees' age, background and role at the company; 2) about the OP; 3) about the motivation factors during the OP; 4) about their perceptions and intentions after finishing the OP. In the second section, there were main questions about the identified KT T&Ps, in case the interviewees did not mention the T&Ps; and when the T&Ps were mentioned, follow-up questions were asked. This was to allow the interviewees to identify the timeline of their onboarding experience and what they remembered or prioritized; and furthermore, to see if any other T&P, not

[9] 'Fadder' is the Swedish word used in AFirm to refer to a social mentor assigned to new employees.

contemplated by the HR manager, would surface. On the other hand, the interview guide for profile B had three parts: 1) about the interviewees' background and role at the company; 2) about their role and objectives in the OP; 3) about their perceptions regarding the new employees and the influence of their role in the newcomers. See interview guides in Appendix II.

The interviews with newcomers had lengths between 45min - 1h30min. The interviews for profile B were between 45min - 1h20min long. Due to the semi-structure design of the interviews there was a main interviewer but the person who took notes usually concluded with additional questions based on what was already discussed in each interview, to ensure covering all the desired topics. Table 3.4 resumes the types of interviews conducted in this research (phase 1 and 2) and their purpose.

Table 3.4. Types of interviews in the research.

Interview type	***Purpose***
Exploratory interview.	Learn about AFirm and KM at AFirm Determine interest of AFirm in the research topic.
Identification interview.	Examine OP and define a timeline. Identify "formal" KT tools & practices (T&Ps). Identify people/roles involve in the OP. Investigate about the job satisfaction and employee retention.
Interviews with newcomers, 'fadder'/ group leader, quality leader, senior, and office manager.	Identify the existent correlation between the T&Ps and the work motivation factors. Examine how are the T&Ps leading to job satisfaction. Explore the different perspectives of the effect of the T&Ps. Examine the correlation between job satisfaction and the intentions to remain in the job.

3.3.3 Transcription of interviews

All interviews were recorded and transcribed, for the multiple benefits that this represents to the research. According to Heritage (1984), cited in Bryman (2012), these might include: avoid limitations of researchers' memories and distortion of interviewees' meaning; permit a thorough analysis of the data and to review it as many times as required; also, allow others to examine the data too, as a proof of the research's non-bias. To aid with the time-consuming nature of transcribing interviews described by Bryman (2012), several online software were used for the transcription. Afterwards a check of the transcripts by the researchers was done to fix any errors made by the automated tools.

3.4 Data analysis

The data analysis consists in a data reduction process to allow the sensemaking of the gathered information (Bryman, 2012). According to what Bryman (2012) explains for the analysis in qualitative research, the process started with the coding of the documents, interviews' transcripts and notes, and the constant comparison of codes that lead to the categorization into themes. Both transcribing and coding the interviews helped to make the data more manageable, as Bryman (2012) states that tends to happen.

Theoretical sampling (Bryman, 2012) was implemented in the research. This means that the analysis was done in parallel with the data collection, resulting in the analysis influencing the data that was being collected (e.g. focus of the interview questions and selection of interviewees). After *phase 1* of the data collection, the documents and first interviews were analyzed, and the first identified themes related to: the onboarding tools and practices, the relevance of the relationships that the newcomers established, and problems faced during onboarding. Later, with the analysis of the interviews of *phase 2* and a second examination of the data collected in the previous phase, the defined themes regarded system, processes, barriers, relevant aspects for the newcomers, and adjustment occurring during onboarding.

The interpretation of the data from a KM perspective allowed to compare and group codes into themes and comprehend the system that the onboarding process represents. Hence, aiding to determine the correlation of the T&Ps with the critical factors and to draw insights for the optimization of the onboarding process, highlighting possible issues and opportunities for AFirm's onboarding process and the recently launched onboarding platform.

3.5 Critical reflection of used methodology

The purpose of this section is to evaluate the methodology used in this research paper, considering the critiques of a qualitative research in order to assess the strengths and weakness of the method chosen. As explained in the Section 3.2.2, the factor analysis was not verified. The researchers decided on combining the literatures about WMFs for millennials and WMFs for employees in the architecture and construction industry in order to obtain the common factors for the specific study group. As this study group (i.e. millennials in the ACE field) has not been evaluated before by other researchers, the WMFs used for the analysis were products of assumptions. Nevertheless, the findings confirmed the relevance of these factors for the study group.

The complexity to investigate the onboarding process (OP) for a big company includes the different procedures depending on the roles, the different actors involved in each OP, and the personalities of the new employees. Another factor, adding to the complexity, was the fact that the interviewees started in the company at different times of the year, therefore the activities that were planned happened in different times. In some cases, for the researchers was hard to distinguish what was experience from AFirm and what was from other companies, though this obstacle was overcome by consistently asking the interviewees to confirm that information was applicable to the research.

During the investigation, the company added a new digital onboarding platform. It was difficult for the researchers to assess the new tool as only one of the interviewees had used it. However, an assessment of the digital onboarding platform was possible by combining what was learned from the other interviewees' onboarding process, the data from the platform itself and the experience of the newcomer that completed the platform's course.

In another instance, the transferability of this research, method wise, is possible but the chances of getting the same result, with a different study group, are limited. There are specific conditions with the WMFs that apply only to the study group, so the aim for this study is not to create a fully transferable result, because it focusses on a specific company's onboarding process. If the method used is implemented in another company, or would have other participants, it is most likely to have different results due to the different onboarding processes and the human perspectives. Moreover, every person interviewed had a different experience which can generate problems with generalization, and patterns association.

As Bryman (2012) argues, complete objectivity is impossible in social research. To maintain the credibility of the information gathered, both researchers proofread everything that was written to confirm that the information was accurate to the findings. The use of triangulation in the literature review, also allowed to reduce the subjectivity of the information about job satisfaction and retention. However, for the data collection, the researchers' opinions in the subject might still have affected the semi-structure interviews.

In order to increase the validity and reliability of this research, further studies would be required by interviewing more newcomers, mentors, 'fadders', group leaders, and other actors; or by applying the same method on interviewees that will have more similar experience (i.e. arrived at the company at the same time or have arrived to the same group in different times).

3.6 Ethical considerations

Ethical aspects were considered while conducting the interviews. As Bryman (2012) explains, this research as a social research was not conducted in a 'moral vacuum', and politics has played its role in it. The exploratory interview with Arch01 allowed to align the authors interest with that of AFirm's in a way that later encouraged HR unit's support. However, there was no further involvement of AFirm's in the findings, discussion and conclusion of the study; the anonymity of the firm permitted this freedom. In a similar way, the anonymity of the interviewees was ensured, to allow the employees to express their opinions and avoid bias in the research. For this reason, participants are identified by pseudonyms. Interviewees were informed that their answers would remain confidential and their anonymity would be kept. The support received from the HR unit influenced the conduction of the research in the sense that the company was aware of the participation of some of the interviewees (who were also aware of this). Hence to keep the anonymity of the interviewees who made use of the HR hours and others who preferred it that way, their roles were not mentioned so when the collected data is referred to a specific participant no connection can be made by the company about the interviewees' identity. No other influence of AFirm occurred in relation to how the research was conducted. Participation of interviewees was voluntary and not imposed by the company. Also, participants gave verbal consent for being recorded (only audio) for the purposes of the study. The audio recorded was stored and destroyed after being transcribed.

According to Homan (1991) cited in Bryman (2012), people are more reluctant to being interviewed if they do not understand the purpose of the research, but it is also advised to avoid providing all the details as it might contaminate people's answers to questions. In this study, the researchers limited the amount of information given to the participants about the purpose of the study, as it was found after the first interviews that the participants might have been limiting their answers to what they believed was related to the research's aim, instead of an overall picture of their organizational involvement. Hence, the research was explained after the interview questions were done, and the participants were free to add any additional opinion or information they thought was missing from the conversation.

4 Empirical Findings

The current section describes the data collected from the case study. It starts with a description of the organization (AFirm), and the OP from a formal perspective (i.e. what it is planned), in brief. It continues with a more detailed representation of the OP, and what actually takes place; covering the implemented tools and practices and the relationships that are built. The section ends with perception of the newcomers.

4.1 The organization

AFirm is an employee-owned organization, this means that any employee can own shares of the company: “Only we who work here can own shares” (Onboarding Platform, 2019). Approximately 70% of the employees are shareholders. The number of shares an employee can own depend on their years of tenure; each year they can buy shares until a point when they need to become partners in order to buy more. Partners are chosen by the partner group, consisting of the majority shareholders, 122 partners. It is the responsibility of the partners to choose the board of directors and the latter appoints the CEO (see Figure 4.1). Arch01 explained that, partners do not need the CEO’s approval “to do business”, meaning that they can take on projects for the company.

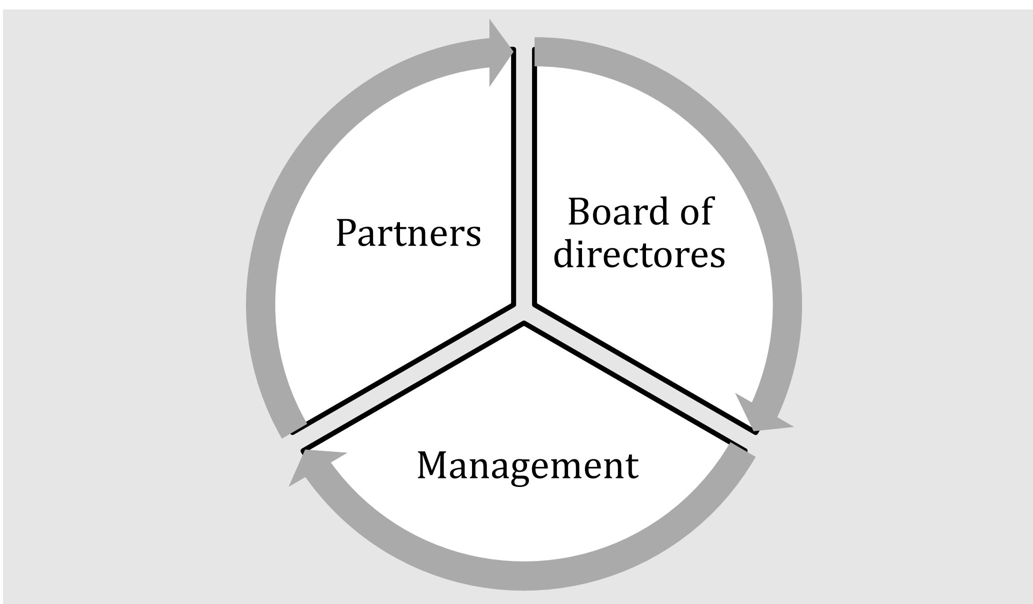

Figure 4.1. AFirm’s decision-making structure (from Onboarding Platform, 2019).

4.1.1 AFirm’ structure

The company counts with central support functions for all the offices, these include HR, financial, communications, marketing, sustainability, research and development lab, support, digital design and BIM, and technology and operation. Offices at AFirm are overseen by an office management group and employees are assigned to groups (5-25 people) for different disciplines (e.g. architecture, project management, sustainability). Groups are under the responsibility of a group leader (GL), and have an assigned quality leader (QL). Each group has projects managed by project leaders (PLs); one PL per project, sometimes two PLs if a project is big. A project could have up to three project supervisors lead by the PL. See Figure 4.2. Many of the interviewees referred to the organizational structure as 'flat'. This flatness was associated with less hierarchical relationships among employees and a decision-making process that does not depend on a few at the top of a pyramid, which one newcomers considered beneficial because of the 'independency' it gave to 'run projects'. It was also associated to how the leadership roles are constantly changing within the company; for instance, the CEO can later resume their position as a regular architect, and employees can be PLs in some projects and regular team members in other projects.

Employees ("Arch +" in Figure 4.2) have two 'bosses' a GL and a PL[10]. AFirm allows employees to change groups and group leaders. As OM01 expressed, "it's very natural that [employees] switch group leader and switch group. [It's not like] you sit in your group for all your employment". Additionally, OM01 commented that they try to mix the groups occasionally.

> Four years ago, we made a very big switch, because we thought that the teams were too locked, and we thought that wasn't good for the projects. If one person always works with two others, maybe they don't get so inspired. So, we tried to mix (OM01).

Employees can work in projects within their groups or in other groups; and they can also travel to work at other offices if these require additional help in a project. NW01 had that experience after being a year in the company.

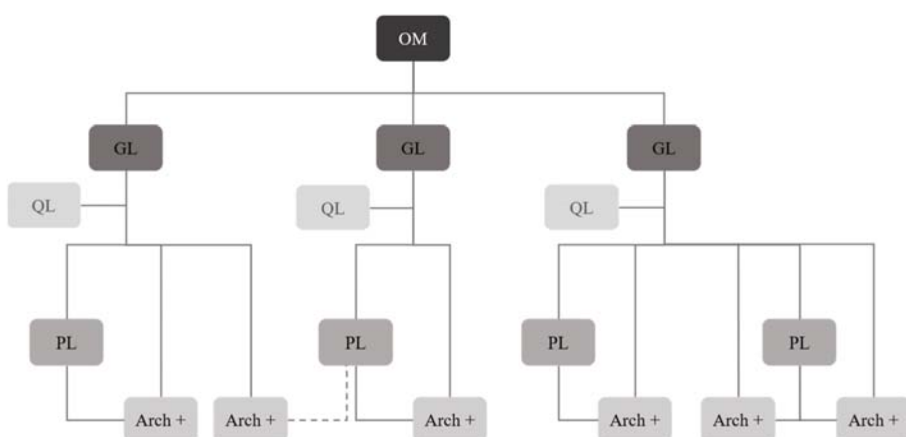

Figure 4.2. Schematic structure of an AFirm's office.

[10] Newcomers usually referred to their GL and PL as 'bosses', and they would use additional words when they wanted to differentiate one from the other, for example 'HR boss' to refer to the GL.

A few of the newcomers commented the various approaches that could be taken to work in a project that one had interest in or to work with specific colleagues (different to those within their groups). They could request to change groups to their GL; ask their GL to be assigned to a different project; or GLs could communicate with each other in case they need to ask for additional employees to join projects in their groups.

> **Q:** You said you would like to check other projects, to develop. If you are interested in a project with another boss, how would they know? **A:** I think for me to work on a project in another group I would have to go through my H.R. boss [GL]. But it could be that the other group's boss asks my H.R. boss: 'Do you have any people? we need more people over here, do you have someone that you can lend us?' But I normally wouldn't go directly to those people and say that I want to work with them (NW04).

> I really enjoyed working with that [previous] group, and all of them had my current boss as a boss, so I thought for me, strategically, it's better to change, so I'll have the same boss as them, in order to have more possibilities to work with them in the future. That was kind of my reason, that, and also that I wanted to focus more on housing projects. […] I thought that there were more interesting projects in the group that I am now, more interesting persons, more people I wanted to work with (NW03).

However, one of these interviewees found a problem in relation to changing group leader too often and working in projects within other groups with GLs that were not familiar with their development plan. This newcomer said that there is a possibility of being treated as a 'resource', which meant their interests and skills might be spread among many GLs or not be considered.

> **Q:** You said that you have worked with housing, if you want to work with housing again, how do they know? **A:** They don't always do that. It's also your own responsibility. And I think that's something that the company sometimes kind of loses. When I did my internship my boss at that time had quite good knowledge in what I did [...] Now I have actually changed boss [GL] quite many times since starting, due to different reasons, and my current GL doesn't really know anything about my background, but he knows where my interests lay [...]. But the GL hasn't the same kind of drive, in that he puts more responsibility on me, in finding a way to kind of keep this interests alive and active, here (NW03).

> **Q:** How do you feel about working in these two groups, your project group and your actual group? **A:** That's a risk somehow to be more of a number in the list rather than being a person, the thing of sitting on different place, because when I had this temporary team leader I was sitting up here [with a different group] (NW03).

4.1.2 Network organization

AFirm, has open networks for different disciplines and fields of work (e.g. landscape architecture, sustainability, healthcare buildings, educational buildings), that keep employees across offices connected, thereby enhancing knowledge sharing. Arch01 called AFirm a ‘network organization’ and said: “the broad part of our organization, is to let people network, within their competences”. Additionally, the company has research networks for exploring other topics, like wood or lighting. Employees have to apply to join these research networks.

Many of the new employees expressed an interest in the possibility to partake in research within the company and a few mentioned wanting to join some of the available networks. For some of the new employees joining the research networks was not possible; NW01’s interest in joining a network to develop in marketing, even if supported by the GL, was frustrated when someone with the authority to decide who is accepted in the network said it was too complicated to include the new employee in the network. So, NW01 did not even try, backed out and decided not to join. Apparently, some GLs are supportive of newcomers’ involvement in the company’s networks; not only NW01’s GL, but also GL01, who expressed that an important thing to do is motivating the new employees to join different activities.

> We have internal networks for a lot of things with different kinds of teams involved. So, get the person involved in one of those teams quite quickly no matter what the subject is (GL01).

4.2 Onboarding process at AFirm

AFirm has a formal onboarding process (OP) for integrating its new employees to the company that has a duration of six months; although HR01 pointed out that the introduction period could also be regarded as the first year because it ends when the new employee has experienced all the activities that occur only once a year at the firm. This idea is consistent with some of the findings about newcomers’ feelings of being a new employee (see Section 4.6).

The OP at AFirm has four main elements, according to the Sum Up that HR shares with the office managers. First, the pre-boarding (see Section 4.2.4) with the purpose of “early engagement and participation” (Sum Up document). Second, the introduction to the office; to give newcomers the feeling of welcoming and quickly introduce them to the practical things and AFirm’s intranet and workspace, as well as the networks relevant for the employee’s role. In this period the new employees are supposed to go through the tasks in a checklist and “it’s a lot about [the newcomers’] own responsibility to ask questions, come with suggestions, take part” (HR01). Third, the digital onboarding platform (DOP), which is a recent addition to the onboarding process (April 2019). Its aim is to provide an overall understanding of the company, its structure and the most important parts (see Section 4.3.2). Fourth, the Introduction Day (see Section 4.3.4); a day for “inspiration, culture, interaction, networking, chance to meet responsible for different central parts” (Sum Up document).

From the company’s perspective, to help the newcomers be ‘productive’ and ‘get started quickly’, the objectives of the onboarding involve two areas: employees’ learning and how they feel. On one hand, is the understanding of the company, its structures, its culture, what the firm does and the reasons for it. Also, learning about the ‘work itself’, the employee’s role, the rules for working and the tools they need. On the other hand, it is also about making them feel welcome, comfortable, taken care of, and seen.

> The aim is to quickly give the person who’s starting up a feeling and an understanding of our culture; so, I think the context of the culture and what we’re doing and why we’re doing it […] also give them the basic tools to get started quickly […]. So, getting a picture of the culture, tools to get started and feeling welcome, of course, like feeling that people are welcoming you and taking care of you (HR01).

> [It is a] way into understanding the company. Also, that they are feeling more seen and that the distance between them and everyone else is not so big. […] New employees should feel comfortable and welcome. Just to feel like: ‘I can be myself here’, I mean ‘I should be ambitious and all that, but I really feel like I could be myself and accepted for the one I am’. […] But also, that the person is learning the work itself. […] I mean to give the rules about working, because it's so different from being a student, [...] here you have to be productive, because you get the salary. So, to give the new person understanding for the role (OM01).

Newcomers’ perception about the objectives of the OP is similar. Some referred to a purpose of making them understand how things are done in the company and in their roles. Few others explained that the aim was to make them feel cared for, noticed in the organization and comfortable. The following comments reflect these two positions:

> Understood that it’s important to work like cross groups, that you use everyone’s talents and knowledge (NW02).

> When you’re newly employed there is a lot of new impressions coming at you, a lot of new colleagues, ‘where is the coffee machine?’, things like that; and if you have a clear structure, that you're supposed to read through these documents, fill in this, that makes you feel a little bit less confused maybe. Way of a calm and rigidity (NW04).

> I think nothing has been especially important, but all these small things together, like the senior persons take their time to meet the new employees, I think that really sends a signal about how much I’m being cared about, here. Someone sees me, they know my name; and I think that’s a very important thing (NW06).

> I think that the goal is that I feel home here, as soon as possible. And that I can be productive, as soon as possible, because when you feel comfortable and you don’t have questions about how to do your job, then it's easier to do it. If you know where to find things. I think it's also important the social part (NW07).

4.2.1 Challenges of the OP at AFirm

GL01 and OM01 identified different aspects that can suppose challenges for achieving the goals of the onboarding process. Some of these aspects are the big size of the company, its structure and decision-making process. These coupled with the newcomer's work experience can complicate their integration. According to OM01, this occurs especially for new employees with a long experience at another company with a more hierarchical structure, in contrast with those fresh out of the university; which is why the company is "trying to make [the onboarding] more individual (OM01)". It should be noted that although the company would like to make a more personalized onboarding, they also tried to standardize the information they are communicating to the new employees through the implementation of the DOP (see Section 4.3.2).

> I think it's always [more] important to help and introduce the person in the way they need, than make it general (OM01).

Another aspect is the limited time that some employees with supporting roles have for dedicating to the newcomers. It was considered by interviewees with these roles that interactions are important for the introduction process of new employees. In GL01's opinion, this means that time needs to be balanced between work and the interaction time the new employees require.

> The best thing is to spend a lot of time together (GL01).

> It's hard to read everything from day one. 'Now I should learn about AFirm', then I sit here with my computer and read everything. That's not a good way, I think. Hopefully they get a better introduction to AFirm, that it's not so hard. So that the first thing they need to do shouldn't be to read on the computer everything (OM01).

Feeling alone or un-noticed were cited, by some of the newcomers, as the main problems during onboarding. The aforementioned challenges (i.e. lack of time and the big size of the company) were mentioned by a few new employees as some of the factors that can generate these problems.

> Coming to a big office is nerve wracking, from the beginning you know you have to meet 200 people, and instead you are like totally alone (NW01).

> When it's a big office there's a risk of feeling like just a resource like just a number on the list of employees […] I think in order to have employees that are happy at their workspace, someone that will want to stay, you have to think about the employee as a person also, as of: 'ok [this person] really wants to do this thing or I think that [this person] would work really good with this person', and kind of work more with the personal things [strengths and weaknesses] (NW03).

> People have really a lot to do, always. So, I felt kind of alone […] I felt that nobody had time to take a coffee, because everybody was so busy (NW05).

> When you don't know everyone in the company, sometimes it can be hard, because it gets sometimes too anonymous. And then maybe when you go to the fika place for breakfast, maybe you don't know everyone and then you don't know where to sit and it can be stressful (NW07).

One newcomer expressed that what helped attaining the desired results of their introduction to the firm was the combination of all elements, and not just one particular thing. For OM01 "to get a good start here we have to do, really, many things".

Furthermore, a couple of new employees mentioned that having a clear structure or system was important for their introduction.

> All these small things add up to the feeling where you feel very welcome (NW06).

4.2.2 Feedback about the OP

The company has bi-yearly feedback on set topics like job satisfaction and sustainability. For the former, a general 'inquiry' is done with a special 'tool' and sending out some questions to all the employees. Nevertheless, the onboarding process' feedback consists of some questions in the DOP and the checklist.

According to HR01, in the digital platform there are some questions about how the newcomer feels and what do they need. However, in the examination of the DOP the authors of this paper only found questions related to the clarity of the information presented in the DOP. Furthermore, in the check list there are questions that the group leader must ask to the new employee, that gather certain amount of feedback. For example: "how do you feel about this introduction? Is there anything you lack? Or what do you think about it? But is just a question" (HR01). HR01 thought it would be good to have a feedback of the process, although they have not done it in a 'structured way'.

The 'fadder' system does not have feedback. The process is one directional and there is no evaluation of whether the information was given or if it was correct, and what is the relevance of the 'fadder' system for newcomers.

4.2.3 Internship: before pre-boarding

An internship at AFirm is possible after a person has finished at least three years of higher education. The intern can work at the office for half, one or two years; it depends on how long the employees want to stay and the time that they are needed, but minimum six months. After completing their internship, they must finish the remaining two years of their programs at the university. If they wish, they can apply to come back and work at the company.

The internship is not considered part of the OP at AFirm, but three out of seven interviewed newcomers started at AFirm after a period of internship. During the internship, they had a welcoming system with a manager, a mentor, and a buddy; and worked helping in different projects, "learning on the go" (NW04), in order to "start learning from the beginning" (S01).

These newcomers agreed that, during this period they were able to work with different employees, and they understood how the company worked and the overall office culture. And both NW03 and NW06 agreed that their time as interns helped them make connections within the company before they started their current employment. Moreover, the newcomers expressed that during the internship they realized they wanted to return and work at AFirm.

> I felt like I had found my place when doing my internship (NW03).

> I like working here. That's why I came back after my internship, I felt that even when I was an intern, I was able to have influence over how the projects turned out in the end (NW04).

4.2.4 Pre-boarding at AFirm

Every office at AFirm conducts their pre-boarding in a different way. The Gothenburg office provides a Booklet (or catalog) made by the office management and sent to the newcomers to get an 'introduction' or 'orientation' a couple of weeks before they start working. In it, new employees can find welcoming words from the head of the office; the structure of the organization, information about the vision, values and goals of the firm; as well as information about study trips, and events inside the company. Other information in the Booklet includes the opportunities and tips for newcomers to develop their competencies; their benefits as employees; a map of the facilities; a selection of recent projects in the office; and a written onboarding plan (i.e. checklist). HR01 commented that other offices call or send an email to the new employee before the first day of work.

> Here [in the Booklet] you get like an orientation before you start. […] you can't read everything here, but it gives you some information. To make you less clueless. […] We did this folder because we thought we had so much material in the computer. So, it's hard to really find the most important, because when you have been working here six months maybe you have gone through it all, but not the first week. So, this is a much simpler way to get to know the company […] You can have this little folder with you for the first month (OM01).

Before initiating work, the majority of newcomers got a call or an email from either the person who hired them or their immediate manager (i.e. group leader) to coordinate when and where to meet the first day, or in one case to inform the new employee that they were not going to be there. A couple of the newcomers felt that their bosses were not good at preparing what they were going to work with when they arrived. Another pair commented that before they started working, they had learned about the study trips and other information about the company from the interviews, Booklet and other documents. During the interviewing period, it was important for GL01 to:

> Tell [the potential new employee] a review of what AFirm is, our company, how it works and what kind of role are they seeking for. Trying to find the match, because as much as I need to know from them who they are, they need to know too. And I need to describe what kind of employer AFirm is, so that they don't get disappointed once they come in (GL01).

4.3 Introduction to the office

As planned by AFirm, one of the four elements to welcome newcomers and introduce them to 'the practical things', tools, and networks they will need for doing their job, is what the firm referred as 'introduction to the office'. A period during which the new employees go through several activities, using a checklist as a support tool; receive help from other employees for doing these tasks; and start getting assignments and working in projects. Newcomers not only meet the actors officially involved in the onboarding process, but also other co-workers (see Section 4.4). The following is a general description of new employees' introduction to the office:

> So, when they start, they get a mentor ['fadder']and get welcomed to the group and the nearest manager [GL] spends a day, perhaps or a bit less, with this person. Then goes through the routines etc. And then the mentor takes over. Takes them around to see, to meet colleagues, to know their routines of the office, what time is 'fika', etc. […]. And also, to get to know the routines and get all the practical things in place, like the computer, etc. So that period with a mentor could go on for about half a year or so, in portions. And then of course they are involved into projects and they meet the people there. Because you could belong to one group, with the nearest manager as head of the group, but then you may have a working project where there are people from other groups too and then the responsible person [PL] is not your nearest manager, etc. So, you are involved in many different contexts from the very beginning (Arch01).

The introduction to the office starts from day one, so all the practices and tools of AFirm's OP, except for the pre-boarding take place or are used during this time. This section contains the findings referring to the checklist and several of AFirm's onboarding tools and practices, which include the digital onboarding platform, the Introduction Day, and the Christmas party. Additionally, it also describes the aspects related to newcomers' work in assignments and projects.

4.3.1 Checklist: a tool for the introduction to the office

The checklist is a list of tasks that must be done during the onboarding process of a new employee, which indicates the responsible people for each of those tasks. This list is considered by the HR unit as a tool for introducing the new employees to the office. Newcomers are supposed to get a checklist when they start working at AFirm. Most interviewed newcomers did receive a checklist; however, a couple did not. According to HR01 going through the list helps new employees to get specific knowledge, get to know the practical things about AFirm's systems and how to work in AFirm's platform.

The checklist differs depending on the discipline; GL01 said that the 'central' checklist was made for the architects, therefore they had to make a 'project management-wise version' of it. For the architect groups in the Gothenburg office the checklist was included in the booklet the newcomers get during pre-boarding.

Roles with responsibilities in the checklist are the 'immediate manager' or group leader (GL), the 'fadder' or social mentor, the quality leader (QL), a co-worker and the project leader (PL). The former three are specified by name in each's newcomers check list. In the checklist for the architecture groups also the OM has responsibilities. Their responsibility entails passing to the newcomers the 'information' related to their field of expertise; and they are aware of their responsibilities, because they have had practice doing it.

> They have been working quite a long time so they know how [it] would work. So, they don't get [the checklist], because it's simple for them and they have all the facts about AFirm's intranet (OM01).

From the company's perspective the control of the checklist is a combined responsibility. According to HR01, OM01 and GL01, the newcomer has also responsibility to ensure the checklist is completed.

> The new employees they're responsible to make a checkmark to see that they have done everything. I think we put more responsibility to the employees because it's up to them if they want to know more about AFirm (OM01).
>
> Is always the [GL] who is responsible for getting the checklist done; I mean, to make sure that this is possible to deliver. And of course, is a responsibility for the new person to ask for whatever is needed, if something is not delivered. So, it's a joined responsibility just to make sure you get what you need (HR01).

Moreover, giving the responsibility of the checklist to the new employees was seen by GL01 as a way of teaching them about what is expected from them in the company. GL01's comment in this regard was this:

> I left the checklist stay with the new employee so he can make sure everything is done. And that also introduces him to the responsibility of things. Because we want our employees to take responsibility (GL01).

However, it was often mentioned that even if newcomers were interested in finishing the activities on the list, it was still on the hands of the assigned person to make the activity come to term. The experience of NW05 reflects this:

> A lot of things on [the checklist] were not really my responsibility, I felt, but I had to ask for it and there is still stuff on the list that I haven't done. I was supposed to get some introduction to the quality system by someone. […] we were contacting the guy in charge, […] I reminded him once or twice, but we still haven't got it (NW05).

The tasks in the checklist are divided according to the period when they should be accomplished; there are tasks programed for the first six months of employment. Not all the activities involve the newcomer, in the sense that some of them must occur before the employee starts working. The rest of the tasks are contemplated for the first day, the first week, between the first and third month, and from the third to sixth month of employment.

The majority of the newcomers have not completed the checklist. NW02, who is on the first month of employment, is still going through the list. From the activities in this list, those involving the QL were recurrently mentioned as unfinished or pending (see Section 4.4.5).

> I don't think we managed to go through all the checklist (NW06).
>
> I actually never finished [the activities with the QL] because the guy who was holding the course was too busy (NW04).

Newcomers did not recall the activities in the checklist in detail, only a few mentioned some activities. Several of them did, however, allude to going through the list with the support of their GL or ‘fadder’. The use of the checklist was mostly indicated to be at the beginning of the onboarding and apparently for those activities that are less complex, as the following comments show:

> [The first day me and] my boss sat down together and did the fastest stuff, the most basic stuff that you're supposed to do in the first day (NW04).

> I had it directly the first day. We have been checking off this list, but not all of it (NW02).

Observations about the checklist indicate that the checklist was not always necessary or what newcomers expected. One newcomer expressed going through the list with their GL and bypassing many tasks because, having been an intern at AFirm, the newcomer already knew what they were expected to learn according to the list. While another, also a previous intern, said: “honestly, I don’t remember so much about it, except it was a very long list […] I don’t think we managed to go through all the checklist” (NW06); then explained they were okay with not finishing it and added: “I think that’s one thing here in the office, that things tend to get a bit overly complicated sometimes. The intention is good, but maybe too ambitious” (NW06). In contrast one of the newcomers who did not receive a ‘physical’ checklist but went through a list of points with their GL, said they “had the opportunity to express and learn about many things about how the company works” (NW07). Another newcomer’s perception was that there was more to the responsible people’s role than just going through the list and that other activities were more important.

> It was like [my ‘fadder’] didn’t do anything except for the list. It was more like: ‘you have to learn this; you have to do this’; not this getting into the group and building social network. And I think that is the most important stuff in the beginning, to feel that you have colleagues that you want to work with and get to know them. And that, I didn’t feel (NW05).

4.3.2 Digital onboarding platform (DOP)

The onboarding platform is a tool recently created by HR for the new employees to get what they need to know in the first weeks. This is done in a special kind of course. The major advantage, according to HR01, is that the digital platform is the same for everyone across the offices, avoiding miscommunication when the information comes from person to person. The newcomer must finish the course in the first three weeks of employment, and it is mandatory. In total it is expected to last 90 minutes which can be done at their own pace. The participants can find videos, interactive charts and information regarding the following topics: AFirm’s history, its values, opportunities, challenges and projects together with the academia; the company’ sustainability, research and development interests, including sustainability goals, research opportunities for its employees and the use of network for knowledge sharing; what it means to be an employee-owned company and the organizational structure; tools (e.g. intranet, work platform) and time reporting routines; and guides on how to work to reflect the company’s values. At the end, there is a section with questions to assess if newcomers have gone through all the content. Only one of the interviewees had utilized this tool and believed that it was useful but commented that if done together with the Introduction Day it seemed like a repetition.

> I did it half an hour per day for I don't know maybe four days or something. […] I think the Introduction Day [is] only two times per year. So, it might be something to start with. If you're new I guess it's kind of rare to have the Introduction Day the second day you start. So, I think if you start with the onboard package when you're new it's a good start (NW02).

As this new digital onboarding was created during this research, most interviewees have gotten the information differently. The most common way was a face-to-face meeting with their group leader (i.e. the Sitting). In a particular case, the newcomer sat in front a computer for a whole day reading, which they found to be lonely and exhausting, even though the information was important.

> I was alone for a whole day. I [was] really tired after the whole day reading and went home at 16. […] I didn't get this much connection with people because everyone was gone and so it was even worse. […] It was very boring, but it's something every company has because often all companies are very proud of themselves for what they've done, especially people that work at AFirm for about 30 years […]. But we, as new people, we don't have that history with the company, so for us we come in with other ideas and goals in our heads (NW01).

4.3.3 Getting assignments & projects.

The introduction to work happens since the first day the new employee enters the company. Normally the newcomers start working right away, they will get assignments from colleagues or group leaders for the first couple of days, or in some cases weeks, until they start to work in a project. Then, when the project is finished, they will get something new for them to work on.

Employees are assigned to projects by their GL, who takes into consideration the requests of the PLs who might want a specific employee in their project. According to the GL01: "the hardest part is to find the right assignments and the right projects for the new person", to "understand where they fit" based on their competence and what they need to learn. Conflicts can arise when several PLs request the same employee, in which case the GL decides based on the needs of the projects and the employees. Both, PL and GL work together to assign tasks to the employees, as expressed by NW04 they "usually work in tandem". However, several newcomers reported concerns with this communication between PL and GL. NW04 explained that in occasions they had to inform the GL and PL to prioritize some tasks because the 'bosses' had assigned too much work to the employee. Moreover, one recurrent issue was that most of the new employees believed the PLs must know about their development plan. For example, NW07 mentioned that discussing with their PL the tasks they wanted to realize in the project they noticed how the PL was not informed of their development plan which they had discussed with the GL; and suggested the possibility of having the PL included in the development meetings that the GL oversees. Additionally, OM01 commented that the GL should be informed about any issues bothering the newcomers, even if these relate to the PL's responsibility.

> If it's a thing about the project [newcomers] go to the 'uppdragsledare' [PL]. But the group leader should be informed about things, because if [they are] not sure, [they] can't really help you the way you need (OM01).

Most of the interviewees agreed that the newcomers learn the most while working in projects; from the work itself, the colleagues, and the networking opportunities. Through the assignments, the new employees started getting responsibilities and growing and developing within the company.

> I've got to be responsible for that [referring to a previously explained project]. I got some experience on how you actually conduct the project (NW04).

> [Getting in projects] that's how you show the company that you are good at it and they open up their eyes and: 'Ohhh... He's a good seller, she's a good seller!' and that's how you can maybe become a partner in the company (NW01).

> I should also say the best way to learn about the company is to work in projects, because then you work with other people in projects, and then you learn how to work in projects and you get to know people, you learn from their experience (OM01).

> The main development of knowledge is within our projects and assignments of course So, we really quickly need to get [new employees] into new projects or into projects and to develop through the project (GL01).

Findings showed both positive and negative issues related to the assignment of tasks right when the newcomers start. On the positive side, were the issues of having clarity regarding the assigned tasks and being able to help around, which brought the additional benefits of having multiple tasks or projects at the same time. On the downside was missing the opportunity to learn about company and do other activities which the new employees found relevant.

> I started to work right away. But because my boss [GL] was busy, it was a colleague that gave me work to do for the first couple of weeks. […] So, I didn't have the time to get to know, go around (NW01).

> **A:** So of course [the GL] introduced herself the first day. I think she was also showing me around a bit. I got a very good introduction. And then I think I hardly started my work, working. […] **Q:** Do you think it was important for you that they did [this introduction]? **A:** Yes, I think it shows that you care about your employees (NW06).

> I was already working in one project and with this 'fadder' and another man, and I felt that it was fine. Everything was working well. […] From the first day I knew what I was going to work with, because they needed help. And I was working with that a few months. So, my first period here was always looking almost the same. I knew what I had to do (NW07).

> There was like a month before I started in this [type of] project […] But during that month I did kind of this and that and helping out in different projects around the office. […] you get to sit on different places in the building. I think is quite good, because it's quite different ambience on the different floors, and different

> attitudes and different cultures. […] I think it's very valuable to have been working with different people in the office, in order to see. […] You kind of get a grip of what's important to communicate and how do different people communicate, in what way to communicate (NW03).

The variety of projects or assignments in which new employees worked during the onboarding also presented issues. Half the newcomers found it to be beneficial to work on several projects or assignments in parallel (in one case, helping in another office). Through this, they were able to network, establish relationships and understand the culture, the work dynamics, and the working conditions of the company. The lack of variety implied feeling 'stuck' and not being able to meet more people and network.

> I feel the projects [I've worked with] are kind of fun, but […] I feel I would have liked to have had more different kind of tasks because I feel like I'm kind of stuck in one project (NW05).

> At the same time [also helping in another office] you get to know other colleagues and other cities. [...] Now when I go to [the annual company day], you get the privilege of knowing so much peoples that you can go and talk to mingle and stuff like that. Other people who just stays in their office never know. So, they would only know the people they work with and the person sitting next to them (NW01).

> When I started working here I always work with the same person, in this project […] but then what happens is that you can't try to work with other people, […] So I think it's good because it takes time to know other people. […] But then you are not that flexible in talking with everyone and that they know you. So maybe when they put people in every project that they try to mix more. That they maybe take all the names and do like this (makes mimic of throwing names into the air) (NW07).

One of the advantages that some new employees mentioned about working in projects was networking. Networking allowed them to know who has a particular set of knowledge within the office, and to showcase their knowledge and expertise to other employees. Furthermore, a few newcomers expressed that having their competence known by other employees can influence their participation in projects.

> The structure itself at the office, makes people know to some extent what you work with. […] But I think that a lot of people network with each other; during 'fika' talking about projects or upcoming projects, and 'what do you think about this and that and etc. […] I'm interested in knowing people, I'm interested in people knowing me and I think that not only in order to get somewhere, I win from that, [but] it's also the fact that you can go around and ask people stuff and if you had talked to them before then you know this person knows everything about stairs or whatever it is (NW03).

> It's hard that they know how you work, the people that have been already working here, and that they maybe choose you for working, because they don't know how you work until they work with you (NW07).

> A third thing of working around the office is that you get to show what you go for. So that might be a good thing for you when they're later planning for you know: 'we're going to do this project. Oh, we know [this employee] is good. We want them to work with us.' So, kind of building a network (NW03).

<u>Networks and working at AFirm</u>

The existence and role of the company networks (see Section 4.1.2) was acknowledged by several employees. According to one newcomer, networking was relevant because there was knowledge in the company that the employees could only get 'through talking' to colleagues. Another new employee suggested the use of company networks to solve an issue they perceived in the placement of employees into projects: that of sharing the knowledge about employees' skills.

> **A:** We don't have a bank where it says: 'go to this person if you're interested in wood construction, go to this person if you're interested in that', you kind of have to know that mostly. **Q:** So, more or less, it's up to everyone to find out through these connections? **A:** I wouldn't say it is that, all the way through. I mean wood was a bad example because we are focusing a lot about wood. We have a network and they are having smaller lecture sometimes where they say that 'these are the people that know stuff […]'. For example, I know that a person in the interior has worked at a color store. I know that if I have any question about color. I always go to her, because I know that she is the best. And that, I know through talking and if I have been talking to her before, then going to her and ask: 'Oh do you have five minutes', it's easier (NW03).

> Some things go lost [in the process of assigning people to projects] and if they are not working on acknowledging that, like acknowledging people, what their strengths are, what can we use this for. Of course, it's going to go down the drain […] This lost knowledge about people' skills can be shared in the networks (NW01).

4.3.4 Introduction day

The Introduction Day is an event prepared for the new employees where the main purpose is for newcomers to be inspired, get a grasp of AFirm's culture, interact, build up connections and meet the people responsible for the central parts of the organization, according to the documents provided by HR. It consists of several presentations by diverse employees, a workshop, and time to mingle. GL01 said that with these activities new employees can "get an in-depth knowledge about AFirm and to be able to have a discussion and […] to create the network".

Newcomers were not very detailed in their depiction of the presentations or the information they received during this event. Nonetheless, the majority of the newcomers recalled finding out about the history and the beginnings of AFirm, explained by a 'retired' or 'senior' employee; this was the most mentioned presentation. Other presentation topics, which were least mentioned, include how the company works, the organization' sustainable and international 'ambitions', possibilities for career development from the perspective of an employees' own career story, and projects of AFirm. In few occasions the newcomers referred to a HR and finance employees doing presentations but did not specify what they talked about.

> It was about how the company is structured and its history and everything; presentations and how we work and history, how we begin and stuff like that (NW01).
>
> We got some seminar or like a lecture about the origins of the company and how it started out and some things about our ambitions to work abroad and our sustainable ambitions (NW04).
>
> We had one of the senior guys in the office explaining about AFirm's history and things like this (NW06).

The presentations were not the only aspects that newcomers remembered from the Introduction Day. Half of the new employees also recalled the mingling and going around several stands where they could talk with representatives of different units in the organization (i.e. research lab, marketing and communication, sustainability and digitalization).

> We got to meet the important people in the organization like the CEO and the CFO (NW04).
>
> The second part of the day was more like walking around meeting different part of management from different groups (NW05).

The main reason that newcomers saw for the Introduction Day was, as the majority said, to understand the organization and how it works; especially its structure in terms of the different groups, networks or roles and their competences or knowledge. This knowledge was considered useful by the majority, and interesting for some of them. Additionally, one newcomer further commented how knowing this could help them in their work in the future, when they wanted to know more; this interviewee also expressed wanting to join one of the company networks. Reflection of this are the following comments:

> It was kind of useful maybe just to hear them talk, the people in the organization, just see how they look and what their needs are (NW04).
>
> It was good to have an overview of the whole office. Also, the history, since it's quite an old office; it's good to know the background of things (NW06).
>
> I learned how AFirm is built up […] There are a lot of networks, for example a […] network where I'm trying to be a part of. And there are all these different groups that have a lot of knowledge, that you can go and ask. (NW02).
>
> I learnt a lot because there was the finance boss, also people from different departments. They came and they explained about what they work with […] I think what I took with me is that there are really clear roles […] to see that it's quite divided. To understand better the organization (NW07).

A few newcomers also mentioned a social side of this event. A couple found the event's aim was to make them feel 'taken care of' and welcomed, and another that it was fun. The following quotes showed the relevance in this regard:

> The VD [CEO] comes and the Vice-President, and [the VD] shakes everyone's hand, which is very nice, you get this face and she gets to know you personally. And she stays for a while there and mingles with the newcomers […] I thought that in a way they want to show you that we are a company and we take care of our youngest […] they want you to have this pride to work in a company like AFirm. And I think it's important, so that you have pride of the company you work in (NW01)

> It was kind of fun to meet people from the other AFirm's offices (NW04).

This event takes place twice a year. Employees go to the event occurring nearest to the date when they started to work at AFirm, it could be at any moment, their first day or up to six months. However, two of the interviewed newcomers went after a year of having started; due to personal reasons or being busy. Their perception of the relevance of the event was different from the others:

> I felt I already knew that, since I've been here for a year (NW05).

> I don't think it was very necessary […] I think it's more relevant to do this kind of stuff immediately (NW04).

It is worth noting that newcomers who did an internship at AFirm also thought that they knew most of the information given in this event. Despite this, one of the newcomers with an internship experience (i.e. NW06) found the event useful. Another of these new employees (i.e. NW04) attended the event after a year, so their perception was related to having gone to the event late, as seen above. The last of these new employees (i.e. NW0.03), found the activity was unnecessary. Among the reasons for this were the employee's attendance to two other similar events during their internship, and the fact that they went through the company's intranet.

> I felt like it was unnecessary because we have a day each year when we gather, the whole company, and have different activities and I think that, explains a lot that is talked about during Introduction Day […] But also, if you have to spend two days on the intranet you kind of get these things, you know, our core values, our ways of working, etc. […] I had also participated in […] a day where you explain: 'this is us, this is our goals, this is what we're aiming for, this is our methods of coming there', and they're updating that every four years or something. I think I've participated in one of those when I did my internship (NW03).

4.3.5 Christmas party

It is not part of the onboarding plan, but the Gothenburg's office Christmas party is an activity that forms part of the introduction of new employees to the company. GL01 seemed to think it was important to mention it as part of the activities to introduce newcomers to the company, they said: "A small thing but also interesting to mention is that at our Christmas party it's always the new employees that year who fix everything […] and they expand the network within AFirm, which is important". The OM01 said that it's "like a small project" that allows new employees working in different groups to get to know each other.

Of the seven interviewed newcomers only six should have participated in the planning of the Christmas party[11]; of these, half mentioned the event. These interviewees agreed that the event is a good way to get to know other newcomers, as reflected by NW04's comment: "[organizing the party] was a very good bonding experience". Additionally, one of the newcomers (i.e. NW06) suggested that it could be good to have other opportunities besides the Christmas party "to get to know the new employees better" and expressed that this "could be one of the development possibilities" for the introductory activities at AFirm.

4.4 OP actors and actor-related practices

This section describes the roles of the actors involved in the OP, the onboarding activities related to each of these actors, and the relationships of newcomers with these actors. The actors include the office manager (OM), group leader (GL), project leader (PL), the 'fadder' or social mentor, quality leader (QL), senior employees, and the rest of the co-workers. Some of these employees, like the OM, GL, 'fadder', PL and QL have designated responsibilities in the process for the newcomers' adjustment; while the others, namely senior employees and other colleagues, just relate to the new employees during everyday work. The employees with the designated responsibilities, are selected for their experience; they do not receive specific training for developing their roles in the OP, rather they are expected to transmit to the newcomers their experience in their respective areas. For example, OM01 explained about the quality leaders: "they have a responsibility to be a quality leader in the group, so they're very good at quality issues […]. So, they have a responsibility to give information about this to the new employee".

It is worth saying that the boundaries between the roles of the actors are sometimes blurry. For example, any employee can be senior, sometimes the GL, PL or the regular colleagues of newcomers are seniors; and the GL of a new employee can also be their 'fadder'.

4.4.1 Office manager (OM)

The office managers also take on a role in the onboarding process. Sometimes they are involved from the interviewing period or they are in charge of the recruitment itself. OM01 explained that when the new employee joins, the role of the OM is to assign the newcomers to a group that needs an employee and in which the newcomer will fit; also, to send the Booklet (see Section 4.2.4) together with the contract.

> I talk with the group leaders; we have five or four architect groups. And we say in group number three, it should be best for them to be there, because they have

[11] NW02 has not been in the company during December yet, so they have not had the opportunity to arrange the Christmas party. In relation to the rest of the newcomers, it is not known with certainty if all of them have participated in planning the event.

> the need for someone young and so, and then I talk with the GL about the start for this person and I give the papers like the portfolio and CV and all that to the group leader (OM01).

Another activity that newcomers do with the office manager is an 'introduction lunch' (now on referred to as Lunch with the OM). This activity is normally done with two or three new employees and the office manager; on some occasions, a human resources employee can join as well. Those interviewees that have participated in this lunch saw this activity as a palpable connection to the flat structure.

> You felt that they took time for being with you that day, and that's good for spending this lunch with you. And they were telling some things, maybe I didn't get any practical information, I would say, but I felt welcomed by the time that they spent (NW07).

> It's informal, so it's just we are eating lunch and talking, so they should see that we are [a] flat [organization]. And for example, when we have new employees from other countries, they sometimes don't think they are allowed to talk to me because I'm like a boss. And I'm: 'come down and sit with me and talk' and they're: 'Oh can I do that?'. And we are very curious to listen to their thoughts (OM01).

4.4.2 Group leader (GL)

The group leader (GL) is the person in charge of the personnel management, this includes the development of employees within their group and the assignment of employees into different projects. According to the Booklet, the GL makes sure that the newcomer feels comfortable and develops in their professional role.

The GL's tasks (presented in the checklist) are to: introduce the new employee to the staff and members of the organization; support the newcomer while they settle into the company; show the new employee the physical environment of the office; provide them practical information; and discuss about the details of the job, relevant routines, and the goals and expectation from both the company and the employee.

The GL works as manager and development coach. According to HR01, in order to become a GL, it is required to go to leadership trainings and programs. All GLs are supposed to have the same foundation and common tools to lead their group; but the different experience that newcomers get during the onboarding ultimately depends on the type of person they 'end up' with as their GL.

> They hopefully have the right amount of leadership knowledge […] Some people are super good at handling people, and others not so much (HR01).

> I think different group managers do [the onboarding] differently. […] I think we have guidelines to make it easier for us, as tool. Then maybe different group managers have different ways of handling this, but we have like a standardized way [...] I'm not the only one I guess, but I will see that the person starts on a Monday because on Mondays the CEO is here so [the newcomer] can meet the

CEO on the first day. If they have met the CEO they feel comfortable taking contact with people (GL01).

[With the GL, I ask] what was the goal for each assignment, what I was expected to deliver and when […] I mean that depends a bit. Who's your boss and who's giving you the assignments. I mean that's the nature of people; some are more clear and specific other ones are not so. So, it's a bit different, I would say (NW06).

During the onboarding process, the GL becomes the person that the new employees 'go to' (OM01). They oversee how the newcomer is feeling or if they need any help. OM01 described the GL's role as follows:

The group leader is really responsible to see every employee in the group and to see if someone is not feeling OK. […] The group leaders also say that: 'you should tell me if you need some support' or to say to all employees that 'if you see that someone is not OK, then you try to be there' (OM01).

The most 'powerful thing' to do with the new employees from the GL01's perspective is: 'to have a personal introduction, spending time as much as possible, acting like I want the person to act [...] also trying to inspire the person to take contact themselves and trying to give them examples of things to get involved in'. The guidance the GL provides to newcomers was described by the GL01 as "a combination of what I say and what I do".

If I ask him to give me feedback it's a part of being introduced at AFirm, since we have a feedback culture. Because if I want him to ask and give feedback I need to ask and give him feedback as a manager, that's part of managing, to act as I want my colleagues to act. (GL01).

Often the aspects highlighted about the GL's role include the time they dedicate to newcomers' issues and how they encourage newcomers to pursue their interests. These are reflected when the interviewees said:

[Good about the onboarding is] maybe my boss [GL]. That he's always available when I ask. If he's working and really busy, if I come and ask, he always turns, looks at me in the eyes and I can ask. That was good. […] I feel that our bosses here try us to get interested in things and that we want to learn more and that we find something that we like (NW07).

About the introduction of a new person, I think you need to have a dedicated time together. That is the best welcoming. [...] spending time, showing them how everything works and get them to meet people (GL01).

These interactions between the GL and the new employee were seen in a positive or negative way. Half newcomers said that their GL cares about their problem and helps them with anything they need; one of the interviewees had the opposite experience.

I haven't got a real trust in her, that she will take my problems or that she really feels that she has to do anything about my problems (NW05).

She's a great boss. […] she is a good listener and she cares about the people in her group like whether you've been working too much or you are having

> troubles somewhere else. I mean she can sense that kind of things. It's always good to have like a moment where you can talk to your boss about your position (NW06).

Additionally, the GL is also the person in charge of selecting the 'fadder' or social mentor. When discussing how this selection takes place, GL01 stated that it will "depend on what level of experience the [newcomer] has". The GL also asks a few employees if they are interested in being 'fadder' of a newcomer. There is no formal selection process or feedback of the chosen 'fadder'. The following is GL01 explanation on how to match newcomers with 'fadders':

> If it's a really experienced [newcomer], I chose [as 'fadder'] a person that has a lot of meetings and moves around a lot in the city, meeting clients and so on, so that the [new employee] gets to meet the clients and so on and get the network. If it's a person who is quite new, I choose a person that is around here a lot, at the office, because they need the social network starting here (GL01).

First meeting and week of employment

There are some official tasks that the GL has to oversee during the onboarding process which can be found in the Checklist (see Section 4.3.1). This tool is normally presented and discussed during the first day, at the first meeting the new employee has with the GL.

> My boss who was going to have a few meetings with me maybe every month at the beginning [...] he went with me through the intranet, he went through with me about my goals as for my role here. [...] he was so engaged. And it was because he has been already a boss for few people (NW07).

> I always buy flowers when they arrive to welcome them. That's a special touch. [...] [There is] one meeting that the new person can present themselves and describe themselves for the group and all group members also have the opportunity, so it's like an introduction (GL01).

Additional activities are carried out during the first week of employment. One of these activities is a walk through the office facilities, in order to get to know the environment and meet the different groups within the company. The new employee should learn during this activity where they can find the printer room, the fire exit, where 'fika' is being held, etc.

> [We] walk around and meet people and they are describing what they're doing and maybe we talk to one a bit more about the project or something. (GL01).

> We met three times, […] we walked around the building. Showed me the fire staircases, gave me the little magnet key to the office, so it's more a lot like practical things. [...] You don't learn everything, but you know where to ask (NW02).

A couple of newcomers commented that this practice would be better if spread into a longer period of time, as it was difficult to cover the entire office. As expressed in the comment below, it was suggested that the practice could be improved if there is less amount of information given in one day.

> I think it’s like four floors so maybe it would have been better to take one floor maybe or one group or something per day. Because the thing is long too. [...] If you have like a hundred names you can't remember any of them (NW02).

Another activity is a ‘Sitting’ (meeting one-on-one) where the GL presents the organization, how the ownership of AFirm works, and the business plan of the company. This part was replaced by the digital onboarding platform (presented in Section 4.3.2). During the sitting, there should be a discussion about the skills of the employee which will be explained in the sub-section of career development plan below. Those newcomers who did an internship said that they already knew most of the information of the Sitting, as they had worked at AFirm before.

> Most questions arise later than the first day, but I felt pretty comfortable. Since I had worked there before, it wasn’t such big of a deal to start working here again (NW04).

Career development plan

According to GL01, the new employees’ personal development plan starts since the interview period, when the GL introduces the steps for career development to the newcomers. GL01 stated that nowadays, is quite often that the future employees want to know “a little bit about what [their] first or second and third year would look like” (GL01).

> I show them [the development plan] during the interview period [...] then we’re discussing at what level they are at, actually, before we hire them. […] ‘What could be the level of development at AFirm?’ That’s a quite common question. ‘What could AFirm offer me on the development of myself?’ (GL01).

The first development meeting takes place during the Sitting. In this meeting the GL and the new employee go through the Booklet, in which they can find the checklist (see Sections 4.2.4 and 4.3.1) and another set of tasks to clarify the goals and expectations regarding the newcomer’s role. These goals and expectations are documented and followed up during a second development meeting. The majority of the interviewees agreed that the most important part of this meeting is for the GL to understand which skills the new employees have, in order to properly allocate them in a project that can use their skills and help them develop within the company.

> So, you can have this little folder [the Booklet] with you for the first month. [Here you] talk about yourself, your experience and your different roles, and describe your role in AFirm, together with your group leader; and what kind of expectations you have of this (OM01).

> I think it’s good to have a good starting dialogue just so that we’re both on the same page. Kind of what my ambitions are and what I would like to work with (NW04).

> I think it's very important for the beginning that you talk to all your new employees to see what do they have so you can utilize this instead of let it go missing or not building it up more for this person (NW01).

> Not everything is mandatory. An important discussion with the manager: 'what do you have? What do you need?' needs to be planned so the newcomer gets the knowledge or experience that he/she does not have. There is a learning system (LRM) with all the trainings available (HR01).

It is worth to highlight that most of the GLs do not take part in the hiring process. In the architectural group, the hiring process is done by HR. One of the new employees thought that their GL did not know about their background, because it was not communicated who they were 'getting to their group' (NW01): "They just said 'we need people' and they hire people and they put them in the groups and they don't know so much about their backgrounds" (NW01).

Therefore, this discussion at an early stage was generally seen as relevant since it can provide valuable information about the newcomers' background and knowledge. One newcomer complained that, at the beginning of their employment, they were assigned work that did not correspond their knowledge area, due to not having the Sitting with the GL.

> I knew that she had a lot to do in projects, but at the same time I still think that she has a responsibility to her team. So, I wanted to make her know that 'you still haven't had the talk with me, you haven't taken it into know who I am' So that's why I said, I put it in a sweet nice way, in a joke way that she won't take it hard, that she failed, and at the same time react (NW01).

This particular new employee resorted to email the GL about their background; they commented: "I started writing what I am and what they'd hired, and because they were putting me stuff that it's not my [field]" (NW01). The interviewee further expressed this 'knowledge' could be shared with other groups which would contribute to the practice.

> I think that they get [caught] up in the work and projects that they forget to take notes of all the people they're hiring, what they can do, […] and implementing that in other groups. So that other groups that don't work with me know that if something comes on their table: 'Oh, [NW01] knows this'. […] So, the communication about our knowledge is very weak (NW01).

The next development meeting takes place after the first six months of employment. In it, the GL revisits the newcomer's goals and expectations from when they have started, and discusses the growth, achievements and areas for improvement. There should be follow up mandatory meetings every year, but GL01 said that it is recommended to do this meeting as much as possible. The focus of these development meetings is to see the progress of the employee in the company during a certain period and continue the dialogue about the future development.

> I would say the GL is a lot about: 'I believe in you', 'I see this in you', 'but I think we should focus here, how do you think?' more of a longer plan. but also: 'these are your weaker things'. You have like two hours where you just sit and

> talk about how you function at work. You don't do that with the PL of your group (NW03).

There was a time issue related to the employee's development and support; a few newcomers expressed that the GL was too busy. OM01 said the amount of time dedicated to this is only 20 to 30% of the GL's overall time.

> [My GL] has way too much to do to be a real boss. Since I think I expressed to her my frustration a couple of times before she did anything about it, and [she] kind of pushed the problem back to me. […] That was kind of a disappointment (NW05).

For planning the employees' development, the group leader gathers feedback about the new employees' work environment and working relationships, by asking them. Since the GL might not have worked directly with the newcomer, they also need to gather feedback from their PLs and other fellow colleagues.

> [My GL] does not know everything I've done because he is not always there, he is always in his projects and he has other people he is working with and I'm working somewhere else. [...] So, he gets feedback from other employees that I've been working […], and this person says something [about] how it was to work with me, and at the same time he asks me a question about someone else who is the leader: How is it to work with this leader? and the pros and cons (NW01).

4.4.3 Project leader (PL)

New employees meet the project leader when they are assigned to a project (usually within the first month); and when, or if, they change projects they also change PL. PLs manage projects and assign project-related tasks to the employees working within that project. Also, they indicate which competencies are needed in the project so the GLs can assign employees to the different projects. PLs might even request a specific employee for their projects, and there could be conflicts if several PLs request the same employee. The official responsibility of the PL in the onboarding process, stipulated in the checklist, is to give the new employees an "introduction about the project (procedures, contracts, planning, customer requirements, the project´s vision, etc.)" during the first week of work of the new employee.

Although the PLs' main responsibility is the project, as OM01 expressed, they can also be involved in the newcomers' development: "[the PLs] have also big responsibility, because they all meet the employees every day [...] So, they should also help the employee with their development" (OM01). Some newcomers expressed the PL had a supportive role in relation to the employee's well-being, their development and their work. These interviewees expressed that the PL heard their concerns and took actions to solve their problems; considered their suggestions about how to perform the assigned tasks; knew their competence and consequently entrusted them with responsibility; and gave them feedback for their development even if, in their opinion, this was the GL's responsibility (i.e. in the development meetings).

> I was very honest to my project leader […] I said: 'I can't, I'm going to jump off this project.' And I told him the truth and he respected that; and I loved that. And he said: 'it's okay. Yeah, you don't have to, we can take someone else'. So that was agreed (NW01).

> The there is a mutual understanding that I work fast and efficiently, and if I tell them [to the PL and GL] that I need more time they usually understand. And I feel I can tell them if I think that we should do it some other way or something. We usually have a dialogue on how we should best move the project forward (NW04).

> The project management mentor [PL] I have now, she is much more like discipline and tougher to some extent. So, she can be you know: 'you can do this; if you do this, then that will fuck up this and that', and 'you have to deliver this, this and this, I expect you'. She puts a lot of pressure on you as an employee, which I think is good. […] she knows [we] can take responsibility. And then she can also say: 'I expect this from you' (NW03).

> Both of them [PL and GL] do it [give feedback], but I think only my HR boss [GL], she's the only one who is supposed to do it. She has feedback talks with each employee every year, that's when she's supposed to give feedback. But, they both generally do it from time to time like 'this was good, this was bad' (NW04).

On the other hand, the PL role (and that of other seniors) in the newcomers' introduction was criticized by some new employees, because of its unequal influence on different employees (see Section 4.4.6). According to NW05, the PL role can also be obtrusive to the newcomers' work and development due to the following: the lack of 'power' and responsibility given to them by the PL, the control of the PL over the employee, and the disregard of the newcomer's ideas. The behavior of the PL was considered a demonstration of 'power' and the relationship was described almost as a competition, in which the PL 'wins' in the decision-making process. The new employee expressed that their expectations were not met and compared the situation with their previous work experience and their expectations as professionals of their field of work.

> I'm feeling holdback, I had to take a step back when starting here. I don't have that responsibility that I had [in my previous work] and I feel a bit controlled by my 'uppdragsledare' (PL) […] we talked about what kind of projects I would be working in, and that I would be working as a [type] of architect. And then I kind of thought that it would be the same as in [...] other companies […] I didn't expect this. […] We [type of profession[12]] want to be in charge of the projects and want to lead them ourselves. And since I've had that role before, I think I am capable of doing it (NW05).

[12] NW05 is referring to their own profession, which as, mention in Section 3.3.2, is one of the following: architect, cost calculator, urban planner or structure engineer. This is omitted to preserve the interviewee's anonymity.

4.4.4 'Fadder': social mentor

The 'fadder' is the name in Swedish given to the 'social mentor' at AFirm. The 'fadder' supports practical questions and ensures that newcomers "come in social context" (taken from AFirm's Booklet). Some of the responsibilities of the 'fadder' according to the checklist, include: to show the office premises, show how to use certain equipment (e.g. for copying) and office routines (e.g. post and alarm routines) and introduce the intranet and working tools (e.g. email, calendar).

This social mentor is a colleague from the same group or project, that makes sure the new employee is invited to 'fika'[13], lunch and other social events; and gets integrated into the 'system'. GL01 was both, GL and 'fadder' of a new employee at the moment of the interview, therefore making the differentiation of the roles difficult. Even if a 'fadder' is the one assigned, "it is up to everybody that the newcomers are included" (HR01). The idea that colleagues should support the newcomers was also shared by OM01: "we are 'medmänniskor' [fellows], you should take care of one another. It doesn't depend on what role you have on the company."

OM01 commented that the 'fadder' answers to the 'simple questions' and accompanies the new employees so they do not feel alone. The findings showed the importance of the 'fadder' role in the new employees' onboarding process. The newcomers thought of the role as someone they could turn to any time they needed, even when their checklist/official responsibilities were covered, and in those moments when their GLs or PLs were busy. The interviewees who expressed being satisfied with their 'fadder', said that this person showed them every room in the building, introduced them to the group and other colleagues, and/or explained everything even if it was a 'stupid question' without making the newcomer feel weird.

> It helped me a lot, it was super important because I felt that there was someone with me the first day […] And also that they chose [this person] as a 'fadder'. It makes that I have always someone to ask to, not only your boss, because bosses sometimes are quite busy. […] I felt secure that I had always this person (NW07).
>
> Well it's still a relationship [the one with my 'fadder']. So [the 'fadder'] is a similar age as me. [This person] has been in office for eight years, so quite experienced and we have also been working together through the fall with [a] project. I mean although he's not running the checklist anymore, it's a really good person to ask (NW06).

Even though the role was seen as important, half respondents were dissatisfied with their relationship with their 'fadder' or the lack of such relationship. A couple newcomers shared the feeling that their 'fadder' did not have time for them or thought they could not ask them anything which contradicts with the aim of the 'fadder' role

[13] 'Fika' is the swedish word for referring to the coffee break.

according to HR. One newcomer felt that there was the need to assign more time for the 'fadder' role at the beginning of the OP.

> Here [pointing to a timeline], in the beginning, as well, I think it's really important, which I haven't talked about, that maybe HR putting aside more time for the people that are your 'fadder' […] and they don't really have that time, at least not when I started here (NW05).
>
> I was supposed to get a mentor, but I never knew who my mentor was, the one who they said it was my mentor, said I'm not your mentor (NW01).

Some newcomers who did not have a 'fadder' or whose 'fadders' were not available to help them sought or received the support of co-workers (who in some occasions they knew before entering AFirm) for activities such as meeting colleagues, asking questions or finding where things were in the office. Another aspect was that some of the newcomers believed the 'fadder' should be the one who approach them; having as result disappointment for not meeting their expectations.

> I had this colleague from before, a friend here, I guess she took care of me and we went for lunch [during the first day] (NW05).
>
> When you are that kind of person [a 'fadder',] you need to approach the new employee and say: 'by the way, here we're having coffee' or 'by the way the lunchroom is up there', but she didn't do any of those things (NW04).

It is important to mention that when employees are in an internship, they also get a 'fadder' (i.e. a buddy). Most of the interviewees that had done an internship within AFirm expressed that, the second 'fadder' was unnecessary, unless in their current employment they were in a different office. "I did not need a 'fadder' because I already had done all that", said NW03 referring to the activities the 'fadder' was going to do with them.

4.4.5 Quality leader

The quality leader (QL) helps the new employee with the digital tools, quality systems and routines of AFirm. According to QL01, when a new employee arrives in the company, the QLs do the following:

> [At a] brief run […] we pretty much just make them know what we have more than how to use it. So, what we explain depends on who it is, but maybe an hour or so. We just run through our routines and where to find everything basically. We don't go very deep into the different subjects. And then, after a few months, when they sort of gotten started and started working properly, then you have like a more a deeper run through of our routines and our systems.

These meetings can be either individual or in a group; most of the times are on a one-to-one basis. The information the newcomers get is relevant when it comes to the projects and the legal actions related to them (e.g. procurement and contracts). In these meetings the newcomers are shown where to find the templates, checklists and tasks for projects; they are also taught new digital development or requirements, how to make the time sheets and other day-to-day ‘stuff’.

> I took notes in those meetings. I can tell you that I use those notes many times because it was really practical information, and it was at the beginning, the first month, maybe first weeks (NW07).

> It’s so complicated, I had to have several meetings. That I booked myself. ‘Can we go through this again?’ because I want to do right by myself (NW01).

Nonetheless, QL01 explained that the job of the QLs in the introduction process is not only about what and how to do the practical things. For this interviewee, the most important part, which has been missing, was that:

> The person understands that this is something that should help them do their work and it’s not just some silly form that you need to fill in. [I] try to motivate and try to explain why we have those things, why we need to make sure that everyone within the team knows what goals we have or what kind of company we want to be. You know, it’s what’s has been missing quite often, this explanation of ‘why’ (QL01).

QL01 said that normally the quality leader is the one reaching out to new employees when something needs to be talked about. Some of the new employees who were interviewed think the QL is too busy, therefore they do not approach their QL.

> I don’t feel brave enough to write to [the QL] […] I never did it because I feel that this person is quite busy, so I wouldn’t go to him, I would go to a colleague instead (NW07).

About the time assigned for the tasks related to the quality leader, both QL01 and newcomers thought that there was a time constraint, QL01 said: “it’s kind of tricky to make ends meet when it comes to time”. Furthermore, QL01 added it can also be “a little bit overwhelming all the routines and checklists”, especially because the QLs also have projects to attend to and only have 10% to dedicate to the tasks related to quality leader. In QL01’s perspective, the interviewee ‘makes room’ for the meetings with the new employees in their schedule and implied that time is always missing. The time factor made the relationship and communication with the QL, in half the cases, vague. A couple of newcomers, after more than a year in the company, have not had a proper sit down with a QL. However, not having the meetings with the QL did not seem to bother the interviewees. Half of them expressed that when they were not able to learn certain things, because the meetings with the QL did not take place, they learned them by themselves, “by doing, reading on the intranet and asking other people” (NW05).

> [We] never finished [the meeting with the QL], because the guy who was holding the course was too busy (NW04).

> [The person in charge said]: ‘I don’t get the time now, but I will get back’. And then I reminded them once or twice, but we still haven’t got it. And I guess we know it by now (small laughter and sight). […] I meet [the QL] like passing by. I know who [the person] is, but I haven’t had that introduction (NW05).

> **A:** [The QL] has said that he is planning to have this quality brief kind of thing, with the ones that have not got the presentation yet. [...] I am doing that with one of the other quality...I don't know. **Q:** OK. So, you haven't had actually any kind of work where someone has shown you... **A:** I mean we work with it all the time. We work with the systems all the time (NW03).

The role of the quality leader does not end at a certain point. Newcomers are involved in activities about quality and establish a relationship with the QLs besides just the designated 'run throughs'. "I have a lot of colleagues here that have been working for quite a while that still need sort of assistance and needs. So, it's not that it ends at a certain point. […] It's sort of an ongoing process", said QL01.

The assistance of the QL is not only to the new employee, but also towards the development of all employees within the office, due to the constant changing and new developments related to the business. Currently at the beginning of all projects, there is a meeting with all the employees working on that project to:

> go through the structure and a short brief of the ways that it's supposed to always work [considering that] the work is done in systems and lately the focus has been on technology-based questions (QL01).

QL01 expressed that if there is "a mentor or something [related to quality] within the project that could show them the steps, the contracts and how the bid was made; that would be even better [because] they would feel like a more clear connection to the actual work that they're doing".

4.4.6 Senior employees

Senior employees are those considered to be 'experienced' and to know more than the newcomers, usually, because they have been in the company for long periods of time. The majority of new employees reported working with senior employees. S01 thought of their role as a 'mentor' or 'teacher' for employees with less experience. The interviewee explained: "the elderly should try to give our image of AFirm to new employees then that [they] feel at home […]" (S01), then continued saying that it is their job to make newcomers understand "how we think" at AFirm. The feeling was reciprocal; most newcomers saw senior employees as a source of knowledge and working with them as a chance for learning. Interviewed newcomers expressed that seniors have experience that they lack.

> There is like four pretty old guys here who are about to retire, some of them. So, it's important to try to learn something in the beginning from them, before they disappear (NW02).

> There are so many seniors here that have been working for more than 20 years, so there's a lot of competence in the office, which I appreciate being able to use (NW03).

> I think I learn a lot by [working with seniors] […] They're good at a lot of things that you don't learn in school (NW04).

Learning and guidance from seniors relates to a variety of topics. These cover newcomer's ambitions and creativity, the company, the project, and the profession, including design, technical skills, strategic thinking, and prioritizing tasks. For S01 the importance of their role is that newcomers and senior learn from each other. S01 explained that sometimes less experienced employees come with really good ideas and the seniors work with them to make the ideas work.

> [The seniors] are good at pushing me the extra little percentage. And also, they're very good at focusing on what's important and directing me when maybe I sometimes try to make everything work at once. They have many years of experience so they're good at a lot of things. Like they are good at drawing details, but also good at strategically deciding what to bring up, when you meet the client or when you would send in a drawing […]. It's good for me to work with them […] My bosses[14] have the craziest ideas. So that stimulates me to also be creative (NW04).

> I think is super good [to work with seniors] because then I can learn a lot [...] in general, about the company and about everything (NW07).

> It's very easy in one way, because you can always discuss and talk about things, design things especially (NW06).

> It's not only questions about architecture, it's about everything; how do you feel at AFirm? or [if] you're angry at someone, and many questions (S01).

Conversation was the main way for learning from seniors, according to both S01 and newcomers. New employees mentioned having discussions with the seniors, asking questions, receiving feedback, also how the seniors would talk about interesting topics or tell stories, as NW07 commented: "this [senior] particularly, he's quite good at telling his stories about his experience, so it helps the person like me, to learn and to develop". Similarly, S01 said teaching new employees can happen by talking to them about tools, techniques, and concepts; while for teaching them about subjective concepts like beauty "the best way is to look at a beautiful house and discuss about it". However, talking is not the only way for 'teaching', a few interviewees explained that actions also set an example. According to S01 'teaching' young employees about the need for free time and a life outside work sometimes requires showing them: "I talk to them often, but also I go" (S01). Newcomers also realized that the actions of seniors are a source of learning, as NW04 expressed: "it's mainly talking, but you can also perceive sometimes how the person acts, that' s also learning […] it's basically just getting to know people. You can also learn a lot from that".

S01 expressed: "If you work in your project, then it's natural to help each other". As the comments from the newcomers reflect, the interactions with the seniors occurred during day-to-day work, working in projects.

[14] By 'bosses' NW04 refers to their GL and PL.

> Sometimes they start talking randomly about something interesting, but I guess most comes from questions when I'm in a project. So, I ask them when the question comes during the day (NW02).

> I think the more feedback that you get, all the time, you get from the people that you work in projects with. There's always someone senior. […] and they give us feedback all the time (NW03).

Some new employees stated that there are certain limitations when it comes to work with seniors. Seniors can take control of who the newcomers work with, because they are typically partners, who can bring projects to be developed by the company, or they can be GLs and PLs. They might also lack time to dedicate to the new employees; or their ample experience can limit the contributions of newcomers. Nonetheless, most of the interviewed newcomers expressed there is an upside to working with seniors. It can bring opportunities to coproduce good results; take responsibility, when seniors have limited time for discussion; learn, when newcomers' experience is limited; and facilitate newcomers' involvement and contribution in projects, because of the seniors' receptiveness of their ideas. These comments reflect both the advantages and disadvantages of working with seniors:

> I had another co-worker that started at the same time, and he's been under someone's wings since then. In two years, he hasn't let him work with anyone else. [...] For me that wouldn't work so well because I'm a person who likes to work with a lot of people. So, I wouldn't want to have someone taking over me, but for some it works, because they have this feeling that they can make […] magic together (NW01).

> The fact that you have many more projects that run in parallel here; it could be maybe difficult with the time. And the senior architect in charge just doesn't have the time to discuss things, which could be frustrating in one way, but also could be an opportunity to take more responsibility, depending on the person you are (NW06).

> In [my current] group there's not much space for me to say, due to the fact that there are so many seniors and they know a lot […] I am very humble in this project, because I have no experience of doing this before. […] So, in this project I try to be a sponge, to absorb as much as possible (NW03).

> I think [my input is] well received. [...] It's very no judgments during brainstorming. And usually I can say something that maybe doesn't really work, but then [the seniors] can turn it into something that could work (NW04).

> That's fun, [working with seniors]; you feel more involved in the project. They listen to you, they respect your opinions, so that's good (NW06).

Moreover, a few new employees mentioned that seniors can have an impact in their career development. They explained that this can be a consequence of working with the seniors in projects where the seniors have a lot of experience.

> Especially in this project, if I would be interested in making a career within healthcare, this is the perfect place to be because I think that [the seniors] will help me, and really push me on those things (NW03).

> When you start either someone likes you and takes you in, and starts working with you a lot, or either you have to make contact to someone […]. So, it's like a lottery, either you get this good luck or you're in bad luck; then you have to do something about it. When I started, I didn't get this person that came and took me under their wings (NW01).

However, some newcomers criticized the unequal influence that some seniors have in different employees. These interviewees argued that the support of senior employees, including GLs and PLs, can positively influence the projects in which the employees work or the extent to which the employees are recognized by others within the organization; and that such support, is earned either by social relationship, by work relationship established since the employee enters the company, or even by gender. Some newcomers realized this by their own experience but also by that of other colleagues. Moreover, they expressed that they believe this is how things are in the organization.

> Through [these competitions] they have gotten quite a lot recognition, I think. And especially one of them, who is also working with a main 'alpha man' in the office […] So if you happen to come in the right hands of someone in the office, then that might be really good for you. If some more senior architect sees you, that's a good advantage. […] I am a bit irritated. I think [my colleagues] have done great work and it's not about that. You also think: 'do they have an advantage because they're men?' […] I reflect upon that, but I'm quite aware that's also how this company works (NW03).

> What I've heard from other groups and my colleagues that I have conference with […] It's a lot like this, that the [PL] has a lot of power […] and if you're not really good friends with your [PL] you don't get the fun projects to work with and you can't develop. So, it's sad (NW05).

4.4.7 Co-workers

The opportunities for newcomers to get to know other co-workers during the OP presented themselves in different situations. The first day of work the GL shows them around the office, getting to know everyone; as previously mentioned, at lunch with the OM newcomers from the architecture groups get to meet other new employees; and the 'fadder', also previously stated, invited them to 'fika' and lunch. Other opportunities come with day-to-day interactions and working in projects, having assignments in other offices or groups, attending to the Introduction Day, and organizing events like the Christmas party (only between newcomers). AFirm gives new employees the opportunity to meet and work with diverse people as they are a big company.

Some new employees felt they did not have enough support to meet new people in the first days, which they considered negative; or expressed they would have liked more opportunities to meet more colleagues. Among the reasons for this were: the 'fadder' did not approach them or the first activities they were assigned to do did not involve contact with others. Newcomers also thought that the relationship with the co-workers differed depending on personalities, 'sometimes is good and sometimes is not', but the company gives them the opportunity to talk about their problems and decide if they can continue working with each other.

> We put people together where they have chemistry […] At AFirm I've also met the difficult people. Nothing I couldn't have handled, and I love them also (NW01).

Most of the new employees had a positive or neutral opinion of their relationship with their co-workers. Some of these interviewees referred to the interaction with colleagues as 'easy', or said their working relations were the reason why they have returned to the job after their internship.

> I don't remember any case that I didn't agree with someone. Maybe the project was not as interesting, sometimes, because after that project I've been working with different projects. It was not always super fun. So maybe it was more about the project than other people. So, I always liked the people I was working with. I don't feel that we don't agree, I feel that it's easy (NW07).

> I've been in the same group all the time. But some people have left, and some were employed after me, but most of them I know since when I was an intern […] they're probably one reason why I wanted to go back here because I think many of them are fun and good at the job. (NW04).

> I get along, sure but I mean since those people are different age groups and have already like a social network within the city and so on, most of the people in the office don't hang around maybe so much with employees (NW06).

Emphasis was given by the majority of the newcomers to how their co-workers have been open for new ideas in the projects. They also were able to discuss their points of view, and even if they did not share the same views, they were respected.

> We were a small group, so it was easy to divide the tasks because we are not too many people. […] I mean that if we think in the same way, I guess I will say so. I didn't feel that we were thinking [differently] and I felt that way about the project, etc. I think that we are quite well. […] I always liked the people I was working with. […] you can have discussions about everything (NW07).

Sometimes, new employees compared themselves with their co-workers. This can be seen through the different sections of the empirical findings, as for example, one interviewee that started at the same time as two co-workers but got different career development opportunities and recognition due to the unequal influence of senior employees (see Section 4.4.6).

4.5 Perceptions of AFirm

The new employees expressed several perceptions they had about AFirm. These regarded their reasons for joining the company, for liking the firm and the work they did there, and their perception of the work life.

4.5.1 Reasons for joining AFirm

The interviewed newcomers chose to work at AFirm for two main reasons: the company culture and its reputation. Many of the interviewees associated AFirm to certain 'kind of quality' and an interesting office culture, which they related to the company being employee-owned, its flat organizational structure, and the internal research it does. An interest to join the company because of the possibility to learn something new, research or the desire for a more exciting job in comparison to their previous one, was expressed by several interviewees. The majority of the newcomers mentioned knowing about the company before they started their jobs and their internships. A few explained they knew about it because of its 'reputation'; they had friends or knew people that worked at AFirm; or they found about it through their job search or during the interview/hiring process (see Section 4.2.4).

> One of my old colleagues [...] started to work here a year before me, and she said that she had really fun tasks to work with here and that they were searching for someone new. And since I was a student, I have always seen AFirm as a company with a good reputation, like a place that has the same values as me (NW05).

> The reason why I applied in the first place, for my internship was that I've always associated [AFirm] with a certain kind of quality, like it's not the 'star-architect' office which just has one big creative director. But I think even though we don't have that, we still create projects that are overall good. […] And they wanted to contribute to that same kind of quality and learn from the people that have made it in the past (NW04).

> There's a reason that I came here first [for the internship], but I also wanted to come back; I really like the culture of AFirm. One of the main reasons that I applied to work here was due to the fact that they are owned by the people working here, and also that we have a very close connection to research. We can research internally; do small research projects but we can also apply for more money to do research (NW03).

The perception of the company culture had positive and negative outcomes. Half of the newcomers expressed that the structure and size of the office does not 'fit everyone' therefore, some people found it cold or impersonal at the beginning or at some point during the onboarding, while others enjoyed it. Most of the interviewees agreed that they shared the company values before starting their employment, thus perceiving the company as a place where they felt comfortable working at.

> AFirm is a very interesting office. It's a special office with the structure. […] You can run your projects very independent from other projects in the office, really different from [my previous workplace] where everything is controlled by a few persons and everything has to go through them before you meet the client and everything. […] Here, I think it's really different […]. You have your own ways of doing things, but still be within AFirm. It has all the pros with office administrative things (NW06).

> AFirm was very different than what I was expecting. Everyone has a very professional face and they still have, many of them. So, they're not so much laid back and relaxed. […] So, in the beginning I thought it was a bit cold. (NW01).

> Well it's a larger office and I think that doesn't fit everyone, but I like the fact of always having someone to talk to or mingle with at the 'fika' or lunch and stuff. And I think personally, that it's quite easy to go and ask people, if you want help or if you have an interest or something like that. So, I think it's a lot like that when I talk about the culture (NW03).

4.5.2 AFirm and the work itself

Most of the employees saw AFirm in a positive light. In OM01's perspective, the favorable perception that AFirm's employees have about their work at the company is not related to the salary, in their words:

> Maybe they don't get most paid here. We are in the middle with what we pay, but I think the employees like a higher goal with their work than just to get money in their pocket. […] I think the employees think that it's good to work in a company that's taking responsibility for hard issues (OM01).

The qualities from the company that stood out the most to the interviewed newcomers were: the sharing culture (knowledge sharing); the research-oriented company; the company decisions and overall design towards sustainability; the possibility new employees have to influence in projects; and the overall feeling of being welcomed when they first started. The following are quotes from the interviewees about some of these aspects:

> I am still in the honeymoon phase […] In my previous job I used to work alone. What I like about the company is the sharing between the different levels, sometimes over lunch. […] I think it's an atmosphere that allows mistakes. And then they are really sharing here. And […] it's not like someone is the expert, they don't want to share and lose [their] position. They're sharing everything (NW02).

> I like working at AFirm because we have good projects, generally, we have competitions as well […]. Also, because we research a lot, and if you have some interest about some subject you have the possibility of research inside the company (NW07).

Newcomers realized certain things about the company and/or found themselves liking the company because of the experiences they had at AFirm, during their introduction period or the internship. Such experiences included working with other employees and in projects, meeting with clients, assisting to company events, or going through the introduction activities (i.e. those prepared especially for the newcomers, to do during their first six months). In some cases, their comments show the comparison they did with previous experiences they lived.

> [I learned] from the people, when I started working in projects, that AFirm really worked and thought a lot of the architecture; they really stand behind that they

are an architecture firm. […] That, I loved about them […] So I like that they work internationally and that they are very environmental, and they like to have research about stuff. They have many different segments that I didn't know about, that I learned little by little; and I noticed that this is a great company (NW01).

I never thought I felt that feeling [of pride] for AFirm […] Until I've met my first customer […] I was sitting with him and I was talking […] and he was asking questions […] he said in the end: 'Wow! I changed all my point of view about AFirm. I didn't know they did this stuff'. That's when I noticed that […] I'm proud to say […] that we think of the environment and we always aim to make our clients work towards more sustainable cities and stuff like that. And that's what I like to stand for and be proud of (NW01).

There is always vegan food, when they offer food here, and I think it is brilliant. […] I am not vegan, I eat sometimes, but you think it's not only greenwashing, you actually do something about it (NW02).

I like [the company] more than before, because I felt welcomed and I think they have really good system for the new employees in general. […] I feel motivated about the projects. Yes, sometimes they are more fun or not that fun. But normally I see that they have something interesting and I feel motivated (NW07).

When I was an intern, I liked working here because it was very structured with a clear organization and everyone seemed very sensible, like my bosses are sensible. They want you to work and make good stuff, but they don't want you to overwork. And that was nice I think because I worked at other companies where it wasn't exactly like that (NW04).

A few newcomers felt that the reality was different from what they have expected, seeing the experience as negative or just more complex. These remarks were mostly done about the 'flatness' of the organization and the hierarchical relationships. Perceiving the firm's core values reflected in the way things are in the company was expressed to be relevant by another newcomer.

Now when I worked for a bit longer, I basically have a bit more insight in all the different relationships and the different hierarchies that I didn't really see when I was an intern, but I realized that the workplace is a bit more complex. I get it. It isn't as if people aren't always as sensible as I imagine them to be when I was an intern; that is fine, we're all human beings, and we're a bit over 200 people in the building so we can't all be sensible, I guess (NW04).

How they express themselves at their homepage and visions and goals and stuff like that and the ways of working and this flat organization, everything, I feel like it wasn't what I expected. Or the stuff they have written isn't really true. It's not part or all parts of the company. [I got this from] communications with other employees and also stuff that has happened in projects, not that I've been in, maybe, but projects [where] I've seen how my colleagues are working, or conversations from people that I am sitting next to, but also lunches or after work (NW05).

> If that [i.e. the core values] doesn't show in the office or in our way of working, then those are just empty words (NW03).

4.5.3 Work life

The perceptions of the work life included the amount of work expected from the company. A few of the new employees had arrived at AFirm after a bad experience with the feeling of being burned out and looking for a better work-life balance.

> I thought that was like getting very much comfortable in my seat and I knew everyone there and I didn't feel this like excitement anymore […] and I wanted to feel nervous again and learn new stuff. What is it that I've been missing, not learning or something like that. Plus, I did burn myself out very hard. So, I had to change environment stuff so I can start new (NW01).

The balance between work and life was a recurrent topic while addressing the day to day work. The general answer among the interviewees was that working extra hours meant a challenging work or having a satisfactory project result, and because it only happened in certain periods of time, it was acceptable for them.

> Only for deadlines. It's not common […] I don't care of working more hours during one week, two weeks and that we get a really nice result. But of course, I wouldn't like it if it took us every day working until night (NW07).

> No, I don't think it's so demanding. Maybe this depend on the project, of course, competitions could be quite demanding at some point and especially here when you're new and you don't really know the role and expectations. Maybe that could be psychologically demanding. But this is not something that bothers me to do so. I'm also very eager to make the result. So then maybe it requires a few extra hours that I'm willing to do (NW06).

Newcomers' perception was also associated with their idea of the profession. It was expressed that the work in this type of professions (e.g. architects, urban planners) can be demanding, by both newcomers with professional experience and those few who had started in the company right after graduating from college. The latter associated the occasional extra-hours they had to work at AFirm with the demands of their previous study life.

> I was still in the mindset that everything had to be done immediately and I was very stressed (NW04).

> Having to work an hour a day extra or two hours a day extra, that I think it's kind of nice. The best period I think is when […] you are at work you have a lot to do, but then it's enough, you can go home at five or six. My friends who are not architects have a really hard time relating to this sometime. When I'm two hours late all of a sudden or have to cancel the same day because I don't have time to finish. They cannot relate to that. But if you have studied architecture as well you know that this is architects (NW03).

> Since I was burned out, I decided that I would never work overtime again. And lots of time we work for free […] and it's like that in all architecture firms;

> which is bad […]. So now I'm putting myself first and work comes second. […] And it doesn't mean that you do less or you're not as loyal to your company and your projects your work […] Of course, there will come sometimes that you have to put an extra. But it doesn't have to be a whole year. Sometimes it goes up and then goes down and gone up and that's more normal (NW01).

A couple of newcomers saw how this aspect was at AFirm, based on their colleagues' examples. What they perceived was in one case positive, in the other negative.

> The [colleagues] I work with don't do extra hours. It is normal to have periods with more work and periods with less work and there must be a balance. For me it is important because I have been working too much (NW02).
>
> I've seen my colleagues around me working like day and night […] they only have this amount of hours to work and then it takes more hours and then they even work for free […]. And it seems like that department group has put this, like it's part of the system, that's how it is […] When I see how you have to work in [small, low-budget projects], then I feel like my [previous job] was heaven (NW05).

4.6 Being a new employee

OM01 pointed out that for employees to reach the point where they stop feeling new depends on how quickly they can adapt and learn. Most of the newcomers still felt like new employees to some extent, despite having been in the company between nine months and two years, more than the formal time for the introduction (i.e. six months). Table 4.1. shows how newcomers felt in relation to being a new employee in a certain period of time.

Table 4.1. Relationship between feeling of being new and time.

	0y0m-0y5m	***0y6m-0y11m***	***1y0m-1y3m***	***1y3m-2y1m***
NW01				B
NW02	N			
NW03 (intern)				B
NW04 (intern)			NN	
NW05			NN	
NW06 (intern)		B		
NW07			B	

LEGEND: **B:** both new and not new; **NN:** not new; **N:** new

The reasons they named for feeling like this were several; and each interviewee usually had more than one of these reasons. One of the reasons some newcomers still felt new was related to employees' knowledge of the competence of other employees. This applied in both directions, for other employees to know what the newcomers had to offer, the experience they already had at AFirm and the projects they had worked in, as well as, for them to know about the competences of others; the former being mentioned more than the latter. From the managers' perspective there was a similar perception. In GL01's words: "If we don't work together, that person stays new for me". These were a few of the newcomers' comments on this point:

> I don't feel like I'm new, but I don't feel like I'm all in yet […] I haven't worked with everyone in the building yet. So not many people know what I can or cannot do […] I just say: 'oh yeah, when I was there [in that project] we did this and that, you should do this or something'. And she [the colleague who sits next to NW01] is like: 'oh you work with that project as well, and you did this as well'. So many people still don't know. And as much as they don't know about me, I don't know about them (NW01).

> When you're in such a big office you kind of have to build a network and you have to show who you are and what you go for (NW03).

Some of the newcomers felt that the feeling of being a new employee is relative to other employees' time of employment and experience in comparison to theirs. Hence, several of them felt new, because there were other employees with more time and experience than them. This perception was shared by OM01 and GL01. Quotes showing this are the following:

> For [a] person starting later, he will view [a] person starting first as an old [employee] because they don't know if they have stayed [at the company] for one month or 15 years (GL01).

> I guess one reason to say you're new is that you kind of compare how long other people at the office have worked here. I am one of the newer (NW03).

> [In my previous work] the average employment time was only two and a half years. So, when I left office, and being there for, in total, maybe five years [...] I considered myself really old or like well rooted in the office; because I was one of the most experienced, of course, because everyone was new. But here [at AFirm] is a completely different situation, we have older people who have been here a long, long time […] I think it takes a while [to stop feeling new] (NW06).

Another reason mentioned by a few interviewed newcomers, was associated to an on-going process of discovering themselves in the new context, in relation to their interests, role in the company, and how to act.

> [I am] also finding my way through what types of projects I have more interest in, and what kind of role I would like to have in the future (NW03).

> I don't think I've come to that sense, [of] how to be at AFrim, because I'm not fully me, but I'm not hiding myself (NW01).

One of the newcomers expressed that partially feeling like a new employee was also considered in relation to the people they knew. This was NW06, who had done an internship at AFirm. They said:

> I consider myself […] both ways, I would say; because the office has developed a lot; since I was gone […] there are quite a few more people and these guys [...] I don't know them, but I know the old ones, from before (NW06).

Of the newcomers that felt both ways (i.e. new and not new) a reason for already feeling as a regular employee was knowing practical aspects about how to work. In this sense NW07 expressed:

> But anyways after one week I felt home here; when it comes to go to my working place or about finding my e-mail, to find things, the practical things (NW07).

On the other hand, the interviewees that no longer felt as new employees were two. For them, the time for reaching that feeling occurred approximately after a year. NW05 expressed that several reasons amount to this feeling. These included: time; the arrival of another employee after them; the understanding of the company' structure and their role in it; and learning how to work and have a work life at the company (to which several other interviewees referred as 'practical things'). In NW05's words:

> [I don't feel like a new employee], not anymore. […] now I feel like I've been here for a while. And I think as well, we employed another person […]; and then when someone else is new, then you have to feel a bit more that you're not new anymore. [Also,] I think I understood the structures of the company in a better way; I understood my role here better, before that I was just frustrated. But now I've gotten to know the hierarchies and more how it's been before. And I feel that I know where to save stuff or where to go for lunch and all that. I've been expressing my discomfort [too].

While the other newcomer (NW04) who did an internship at AFirm, associated this feeling to having finished the activities planned for newcomers. When asked when they stopped feeling new, this interviewee said: "maybe when I didn't have to arrange a Christmas party".

4.7 Newcomers' future at AFirm

AFirm does not usually hire individuals for projects, the company plans for long-term employment. HR01 explained that the 'quite flat' organizational structure permits employees to "find different kinds of positions in the company and grow in different directions", which according to them is shown in the diverse roles that those with longer tenures have had over the years.

When employees quit, the company conducts exit interviews to understand the reasons why they are leaving and receive feedback from them. According to HR01 the reasons for employees leaving the company can be many and these might include dissatisfaction with their group leaders or groups, or opportunities at other companies in terms of more interesting projects or better salary.

All interviewed newcomers, except one (NW05), intended to remain at AFirm for at least two more years. Three out of seven expressed the desired to work at AFirm for even longer periods (e.g. 20, 40 years); of those, two were interns at AFirm before their current employment (NW03 and NW06).

> When I did my internship, I felt like I've found my place […] I was like: 'Fuck did I found that already? […] I'm gonna be one of those persons who will be here now for 40 years and advancing', and to some extent I still think so (NW03).

The newcomers' intentions to remain in the job (or leave) were related to diverse aspects; in some of the cases to several aspects at a time. The most mentioned was the possibility for making a career in the company (i.e. develop in the role they wanted). In fact, the interviewee who was considering leaving the company expressed their intention was related to the situation with their PL that hindered their development.

> I think that if I show interest, I can develop here in the aspect I want […] When I think about my career, I see that I can develop it as I want here; I mean, I can choose this way, or I can choose this [other] way (NW07).

> **A**: It's been some small changes where I've gotten more responsibilities. But in the long term I don't have any development plans. […] That's the role we [i.e. NW05 and a friend] want to have and are used to have at other places. And since we can't become that here, so I can't see how I can develop. **Q**: Do you think that in the long run would that make you change to another company? **A**: Yes. **Q**: When do you think that might happen? **A**: I'm going [on a leave]. So, I will see when I get back […] If I don't feel that things will change, I don't think I'm gonna be here (NW05).

A couple of interviewees also talked about the opportunities for learning as a reason to keep working at the company. For these interviewees there was intention to change jobs at some point, after having gained the competence they sought.

> I guess I need at least 3 or 4 years here to build up my knowledge […] I give it [here at AFirm] 4 or 5 years. (NW02).

Additionally, several stated their intentions were connected to their contentedness with different aspects of the organization and the work itself, which included one, or several, of the following: requirements of the job (i.e. hour-wise and emotional), sustainability aim of the firm, location, salary, job stability, working relations and work environment. In contrast with the aspects of development and learning, these were only mentioned once.

> [I want to stay at AFirm] because of the sustainability focus; also, that I can go with the tram to work, there are many pieces in the puzzle. [Also] I am happy with my salary (NW02).

The ideas behind these aspects were in some cases formed from the newcomers' own experiences during onboarding. Their own development, learning and contentedness at the firm insinuated to them the possibilities of a future in the company.

> They have been sending me to a different kind of education [...], leadership and stuff like that […] maybe there is a plan of a development of me being a leader to bigger projects and that would be nice (NW01).

> I had a fall in winter-ish, that wasn't so good for me, personally; due to a project being pushed forward and, in the end, didn't happen at all. I was just waiting, waiting, waiting and I wasn't put in another project […] I'm very happy where I am now and I feel very good about knowing that I will be working with this [project] like a year or even more. So now I feel very happy, like overall happy. […] I think right now the reason I enjoy [my work], is the stability and the group that I'm working with, more than the actual project (NW03).

> I want to get some more experience regarding actually producing projects and I think it looks like I will get to do that. My boss has also been good at booking me into courses regarding this […] So it feels like I would quickly be able to get some more real experience (NW04).

In other occasions, the ideas came from observation of the opportunities they had in the company and the examples of others. These suggested there were possibilities and desired circumstances for the new employees, that encouraged them to want to stay. Examples of these are the following:

> I am happy with the possibilities to educate myself here. [AFirm does] this travel once a year, a study trip. It suits me (NW02).

> You see people are here for quite a few years, and that's a good sign from the work environment, I would say. So yeah, I could very well imagine me here in 20 years, although it's a bit scary to think that (NW06).

> I think that, if I show interest, I can develop here in the aspect I want […] I see it from people here that maybe they are starting as a normal architect […] and then I see that they become experts in something (NW07).

In some cases, the ideas were also related to the interviewees' interests or previous experiences. For NW01 a 'healthy relation' with their work contrasted with the interviewee's experience of 'burnout' at their previous work. For a newcomer whose only work experience was the internship and current job at AFirm, the decision of leaving after becoming more experienced was related to their interest to continue learning from a different environment. While in the case of the other newcomer who had a similar idea, the decision was motivated by the interviewee's desire to return to their place of origin with additional knowledge in their field of work.

> I will stay for a few years until I become more experienced, at least a few years, but maybe not my entire career […] Because I've never worked in a smaller office. This is a huge office and we make a lot of huge projects; it would be nice to work in a smaller place and focus on smaller projects as well (NW04).

Some newcomers indicated that reflections about their own future at AFirm can be stimulated by factors such as headhunting from other firms, market conditions, and staff layoffs. An interplay between these factors and new employees' situations at AFirm, the way certain circumstances were handled, or the opportunities they had was also visible in their comments. The examples also reflect that a positive situation at the moment of the reflection or an improvement of their conditions appear to have discarded the consideration of changing jobs.

> Many offices out there are having lots to do. So, you have headhunters calling you and filling you with information that you think: 'Oh, should I stay, or should I go?' I don't see another company in Gothenburg that would be better than AFirm in the meanwhile. I have a healthy relationship with my work at AFirm now. I don't think I'll change that (NW01).
>
> We had [a cut] before Christmas. The management said that we have to fire 10 people. […] for a while, I was like: 'It might be me because I'm newly employed'. But [now] since it's just [a few] of us and we have really much to do and they need me, so I don't feel jeopardize (NW05).
>
> The company has been through a bit of a rough period where we had to fire some people […] I thought 'maybe I will lose my job' [So] I had to think over: 'OK which company am I interested in being at?' […] I didn't really think that [AFirm] saw me in it, I'm coming back to this 'being seen as a number', and I felt that quite a lot during that period. And then I thought 'OK, maybe I want to work at a smaller company where you know each other' (NW03).

4.7.1 Perceptions of owning company shares

The firm encourages its staff to become shareholders with the idea of empowering and fostering a sense of responsibility in them. All newcomers, but one, expressed their interest in buying shares, many already had and those who did not, attributed it to reasons beyond what the shares represented to them. Half of the newcomers explained that buying shares of AFirm represented a financial incentive (i.e. earning money).

> You also get an incentive like if you work harder and create better and more projects for the company, then you can also get more money out of the company (NW04).
>
> If I put effort in the company, as in work-wise, the shares are an opportunity to get some of the result back, not only as salary, but as something extra (NW06).

However, behind the financial reason, there was a decision motivated by the need for belonging to the company and a feeling of commitment, shared by half of the new employees. And for one of the interviewees it meant 'working for yourself'.

> When you start at AFirm they want that everyone buys shares, because they want it to be like a community, that everyone is working for them and this company is for everyone (NW01).
>
> [Having shares means] feeling more responsibility (NW03).
>
> It makes you feel like a bit more invested into the company. I mean you're literally more invested in it (NW04).
>
> I [bought shares] because I feel that you are part of the office (NW06).
>
> I would feel more and more part of the company (NW07).

Besides, for a few new hires being an employee-owned company represented a possibility to be more involved in decision-making. These are some representative comments:

> At [my previous work] there was one big shareholder […] and you feel like you always have to work so that the shareholder can get good results. And that makes maybe a little more pressure on the employees […] but here if it goes good, it goes good for everyone. […]. So, in a way that kind of companies I think is better when you work for yourself and not someone else. In general, I think [AFirm is] a company where you can choose, and you can say no to things if you don't want to work with this stuff (NW01).

> [The contribution of the shares is] on the other hand, always having the right to say and having the possibility to have an impact (NW03).

That AFirm is an employee-owned company attracted several of the new employees before they started working at AFirm. In most cases, their time as new employees had reinforced the idea they had about owning shares. Although for one of the newcomers the perception changed; this interviewee's comment in this regard was the following:

> That the company is owned by members was a thing that I felt was good. But I don't feel like that anymore because it's mostly this partner group that you're working for and it isn't what I thought it would be (NW05).

5 Discussion

The following section regards the analysis of the collected data and is divided in seven sub-sections. The first part contains a brief examination of the onboarding process (OP) with support of the onboarding literature. The second, is the interpretation of the OP from a knowledge management perspective. The third sub-section comprises the barriers identified for the OP, considering the aforementioned interpretation. The fourth, analyses possible elements that cause differences in the development of new employees. The fifth part explains an observed process related to the perception of the work motivation factors (WMFs) that lead to job satisfaction. The sixth sub-section examines the determinants for retention. Finally, the seventh consists of a critique of the relevance of communities of practice (CoP) for the OP.

5.1 OP at AFirm

In accordance with what the literature states (e.g. Bauer, 2010; Klein and Polin, 2012), findings demonstrate that AFirm's OP had a clear aim: newcomers' adjustment or integration into the company and their roles. It could be said thus, that AFirm's OP had a deliberate character. Such deliberation, which according to Bauer's (2010) definition makes the process a formal onboarding, is reflected by documents that indicated the structure and objectives of the process, like the Sum Up to the office managers or the Checklist. As well as by the similarities in the answers of the interviewed HR manager and office manager regarding the aim of the company's OP. Both interviewees expressed that newcomers' integration into AFirm included the 'understanding' of different aspects of the company or employees' role, and creating the feeling of being 'welcomed', cared for or 'seen'.

However, it should be noticed that the OP at AFirm had also informal characteristics (Bauer, 2010) owing to the presence of some practices not contemplated in the onboarding plan, but that were mentioned as part of the introduction activities. Examples of these were the Christmas party mentioned by half the newcomers, OM01 and GL01; the relationship with seniors which was said to have a supportive role during the introduction period, according to the majority of new employees; the relationship with the co-workers, also considered to be supportive by some newcomers; and the internship at AFirm which, even if not considered by AFirm as part of the employees' OP, could be seen as a realistic job preview, classified by Bauer (2010) as a pre-boarding practice.

The findings show that a set of activities (i.e. practices) and tools were in place in order to achieve the aim of AFirm's OP, which according to the firm's perspective could be synthetize in newcomers' integration through learning and welcoming. This is consistent with Bauer's (2010) and Saks et al.'s (2007) descriptions of the onboarding process, which refer to facilitating learning to achieve employees' adjustment. AFirm's idea of learning for integration has a more obvious connection to the literature, but one might say that activities with a welcome purpose also aided in newcomers' learning. Those practices that completely or partially lacked an obvious learning purpose and which seemed to be mostly dedicated to meeting people, were usually connected with new employees' understanding of some aspect of the company. In this sense, the introduction lunch with the OM, the Christmas party, and the Introduction Day, made the new employees feel part of the company by showing them how the firm worked; for example, the lunch with the OM, through which OM01 wanted to reflect the 'flat' organizational structure and the company's encouragement of attitudes aligned with that structure, which indeed the new employees saw as an indication of that flatness.

Based on this interpretation, it could be stated that all the tools and practices of AFirm's OP, regardless of their official or unofficial character (i.e. formal or informal), intended to ease newcomer's adjustment through the learning of diverse aspects of the company and the employees' roles. Moreover, a comparison could be drawn between these aspects and those that according to Bauer (2010) newcomers should learn during onboarding, namely: norms, skills, behaviors, routines, attitudes and other kinds of knowledge. Table 5.1 shows the connections that might be done between the elements mentioned by Bauer (2010) and the findings related to the OP's learning objectives, from the company's perspective. While Table 5.2 shows how newcomers' learning of the aspects proposed in the literature could be associated to the activities for making them feel welcomed, seen and cared for.

Table 5.1. Learning during the OP – connections between literature (Bauer, 2010) and findings.

Aspects to learn about during OP (Bauer, 2010)	***OP learning objectives (from findings)***
Behaviors and attitudes	Company's culture and reasons for the work it does.
Norms and routines	Rules for working.
Skills	Professional role and tools newcomers need for it.
	The work and profession.
Other knowledge	General knowledge about the company, its structure and the work the firm does.

Table 5.2. Learning while being welcomed – connections between literature (Bauer, 2010) and findings.

Aspects to learn about during OP (Bauer, 2010)	***Activities for making newcomers feel welcomed, seen and cared for***
Behaviors and attitudes	*Introduction Lunch with the OM:* Feel welcomed and seen by understanding that attitudes aligned with the flat organizational structures are allowed. E.g. […] when we have new employees from other countries, they sometimes don't think they are allowed to talk to me because I'm like a boss. And I'm: 'come down

	and sit with me and talk' and they're: 'Oh can I do that?' […] (OM01).
	Introduction Day: mingling with the CEO and other representatives of the firm was considered a reflection of a company that welcomes and takes care of its new employees, one could interpret this as part of the company's culture. E.g. The VD [CEO] comes and the Vice-President, and [the VD] shakes everyone's hand […] And she stays for a while there and mingles with the newcomers […] I thought that in a way they want to show you that we are a company and we take care of our youngest (NW01).
Norms and routines	*Christmas Party:* by meeting other newcomers while planning the party, they feel welcomed and find out about this annual activity in the office' calendar, which is exclusive for newcomers, almost as a tradition. E.g. […] at our Christmas party it's always the new employees that year who fix everything […] (GL01).

Therefore, it is possible to describe AFirm's OP as a management system, in line with Saks et al. (2007); consisting of activities and tools (Bauer, 2010; Klein and Heuser, 2008; Klein et al., 2015), for facilitating newcomers' learning of the norms, skills, behaviors, routines, attitudes and other knowledge that they require for their integration as productive members of the firm, as suggested by Bauer (2010).

5.2 OP as a KMS

If regarding knowledge from the practice-based epistemology, as both thinking and doing, and context dependent (Hislop, 2013), one could recognize as 'knowledge' these norms, skills, behaviors, etc., that AFirm's new employees learned during the onboarding process and which were related to the company, the office, newcomers' professions and roles. Unlike in the objectivist conception of the sharing (i.e. giving) of knowledge (Hislop, 2013), the T&Ps and the structure of the onboarding process at AFirm promoted a 'flow of knowledge' (Corso et al., 2003) that consisted in more than just giving and receiving information (by AFirm and newcomers, respectively); rather, it was marked by plenty of interaction and a chance for newcomers to put the knowledge into practice, much like in the practice-based approach.

When considering AFirm's onboarding practices consisting in assigning a colleague for support (e.g. 'fadder', QL) or welcoming newcomers and helping them build relations (e.g. Lunch with the OM, Christmas Party), it may be claimed that the 'flow of knowledge' (Corso et al., 2003) which enabled newcomers' learning mainly followed a practice-based approach (Hislop, 2013); this is because the aid provided by the co-workers and the welcoming activities implied interaction, as well as 'doing' by the newcomers (e.g. asking questions, following examples). Nonetheless, it must be noted that a minority of the onboarding T&Ps, principally the tools, worked with the sender/receiver logic (ibid.). These tools transformed knowledge to make it explicit, mainly into written word; stored it, in printed or digital form in the Booklet and DOP, respectively; to be later acquired by newcomers.

Moreover, what Styhre (2006) refers as ‘learning-by-using’, and which could be associated with ‘knowing’ (i.e. thinking and doing) (Hislop, 2013), might be reflected in new employees’ on-the-job-learning, which seems to be a (deliberate) result of the structure of the OP at AFirm. Almost every practice and tool for onboarding at AFirm took place or was used during the period of Introduction to the Office, which was characterized by going through the onboarding activities in parallel to engaging in everyday work and establishing collegial relations. In fact, similarly to what Styhre (2006) explains for workers’ learning in construction projects, the findings show that newcomers learned the most while working in projects, from the work they did, their project team members, and the networking opportunities they had. Also, insinuation of how such structure of the OP allowed ‘knowing’ to occur could be seen in those occasional statements of newcomers about knowing what they could not learn from certain onboarding activities because they engaged in everyday work, interacted with colleagues or used the systems of the office.

By acknowledging knowledge’s embeddedness into practice and embodiment in people (Hislop, 2013) as reflected by the discussed findings, it could be claimed that the flow of knowledge in AFirm’s OP constitutes a KT process that implies obtaining, internalizing and applying knowledge (Rezgui et al., 2010; Tangaraja et al., 2016; Wang and Noe, 2010). Hence, taking into consideration Dalkir’s (2011) description, the onboarding previously defined as a management system, could be interpreted from a KM perspective as a knowledge management system (KMS); more specifically a KMS in which the onboarding tools and practices supported the main process of KT as defined by Rezgui et al. (2010), Tangaraja et al. (2016) and Wang and Noe (2010). For this characterization this study assumes Centobelli et al. (2017) and Cerchione and Esposito’s (2017) proposition of contemplating both tools and practices as elements of a KMS; however, regarding tools as instruments that support the practices and KM processes, even those without technological nature, on the basis that such tools were seen in the case study (see Onboarding platform and Booklet as repositories in Section 5.2.1).

<u>No tool stands alone</u>

In the beginning, this study had the intention to examine each individual T&P, but as two of the interviewees pointed out and the following discussion will reflect the outcomes of the OP were the result of a system’s work. Chouikha Zouari and Dhaou Dakhli’s (2018) notion of ‘no tool stands alone’ could be appreciated in this system in which people, organizational context and T&Ps played a role. On one hand, the system configuration of AFirm’s OP could be observed in some combinations identified and encouraged in the literature; first, that of tools and practices (e.g. Centobelli et al. (2017); Cerchione and Esposito (2017); Chouikha Zouari and Dhaou Dakhli, 2018;

Robinson et al., 2005); second, the combination of the codification and personalization strategies for KT (e.g. Hartmann and Dorée, 2015; Hislop, 2013). On the other hand, another reflection of the system is the influence of the organizational context in the interactions of employees with the T&Ps and in the KT process (see Section 5.2.3), in line with Chouikha Zouari and Dhaou Dakhli (2018).

Figure 5.1 is a portrayal of the onboarding KMS in which the KT process was supported by the T&Ps and the community of practice as a context whereby T&Ps were implemented. Table 5.3 shows the association of the onboarding T&Ps with some KM concepts that aided in the examination of this system. Following the definition by Centobelli et al. (2017) and Cerchione and Esposito (2017), the relationships established by newcomers with the supportive actors can be considered part of KM-practices for onboarding, as these relied in methods like, mentoring, storytelling and peer-to-peer learning for the support of the KT. The following sub-sections will further explain the interpretation of AFirm's OP from a KM perspective by analyzing this system in terms of its context, how the system worked, how employees interacted with it, the function of the tools and practices, and the outcomes related to newcomers' adjustment.

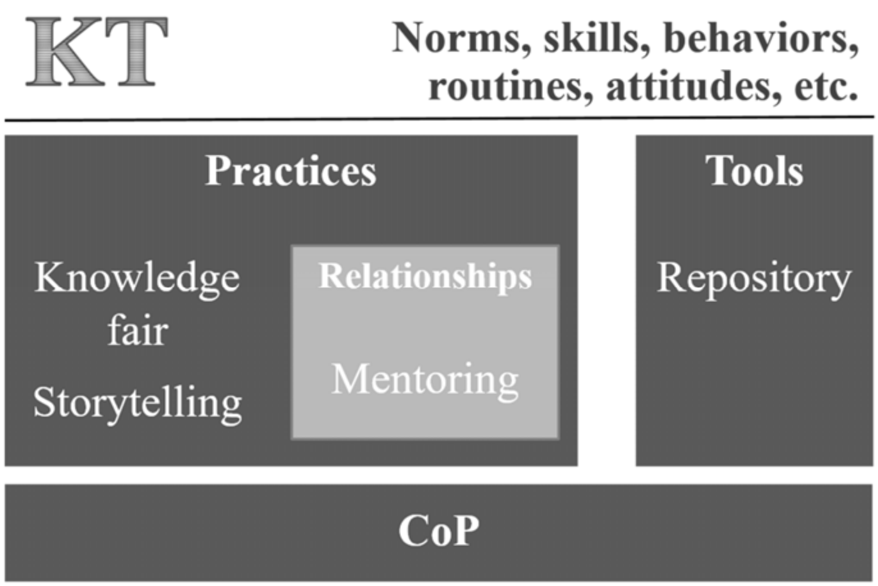

Figure 5.1. Onboarding process as a knowledge management system.

Table 5.3. AFirm's OP T&Ps relation to the KM literature.

AFirm's OP T&Ps	***Related KM concepts***
Introduction Day	Knowledge fair.
Booklet	Repositories.
DOP	
Supportive actors	Mentoring.

(GL/PL/QL/'Fadder'/ Seniors)	
Internship	CoPs.
Christmas party	
Lunch with OM	

5.2.1 Onboarding tools and practices for KT

As supporters or pillars of the KMS, AFirm's onboarding T&Ps had a role in the KT that promoted newcomers' learning. This role can be more thoroughly understood from a juxtaposition with certain KM tools and practices.

Introduction day: a knowledge fair for onboarding

A knowledge fair as an event for showcasing a company's knowledge (Gray, 2001; O'Dell and Grayson, 1998; SDC, 2013) is a KM practice representative of AFirm's Introduction Day. The sharing of a company's work and achievements, mentioned in the literature as means for showcasing knowledge in organizational knowledge fairs, occurred at the Introduction Day during the presentation about the company's projects, remembered by a few newcomers. However, based on the main reason new employees identified for this event, it could be argued that the most important knowledge that was showcased at this onboarding knowledge fair was that pertaining to how the organization worked, in relation to its structure and the competence within the diverse units and networks.

This event had elements described in the literature for knowledge fairs, such as the presentations, workshop (SDC, 2013), mingle, conversation and networking (Gray, 2001; O'Dell and Grayson, 1998; SDC, 2013). It could be argued that the last three elements, which were more focused in promoting interaction, were more relevant in the sharing of the knowledge about AFirm' structure, based on the allusions to mingling and getting to know representatives of the organizational units by half the newcomers and contrasting this with the scarce recalling of the presentation topics. Moreover, it might also be assumed that a secondary knowledge shared with the new employees during the Introduction Day was that of the firm's culture, given that a few newcomers explained how these interactions reflected how the company cared for its employees.

Additionally, storytelling can be seen as an auxiliary method implemented during the Introduction Day, as it can be presumed that some of the presentations represented what Swap et al. (2001) describe as organizational stories. Examples of these presentations are the one by a 'retired' or 'senior' employee telling about AFirm's 'history' and 'beginnings', and another about the personal career development of an employee to show the possibilities for career development within the company. The 'history' or 'beginning' of AFirm, which one interviewee associated to understanding the 'background of things', might indicate consistency with Dalkir's (2011) proposed purposes for stories in organizational context, specifically the transmission of the company's culture. It also aligns with Swap et al.'s (2001) ideas of how implicit meanings of stories can aid in sharing tacit organizational knowledge, in this case related to AFirm's values. Nonetheless, the interviewees did not explicitly express having comprehended such knowledge (i.e. organizational culture or values) from that presentation. Regardless of this, it still is interesting that many new employees remembered this particular presentation above all others, which in accordance to Swap et al. (2001) might indicate the 'power' of storytelling.

DOP and Booklet: onboarding repositories

Knowledge repositories, for the storage and transfer of knowledge (Newell et al., 2009), in this case about what it means to work at AFirm and how to do it, is what the Digital Onboarding Platform (DOP) and Booklet represent. According to Tangaraja et al.'s (2016) conceptualization, the KT done with these tools would be following a codification strategy. Guided by the objectivist perspective of the knowledge epistemology (Newell et al., 2009), a codified expression of the firm's vision, values and goals, decision-making structure, tools, among other knowledge, was compiled in the DOP and Booklet.

Newcomers commented on the usefulness of these tools; in a few occasions specifying that this perception related to the possibility of learning about topics of their interest. However, it was done in a manner that could be described as superficial, based on the few details they provided. For example, in relation to the Booklet, a couple of newcomers mentioned it as one of the means through which they found out about the study trips. In terms of the DOP, only one newcomer had utilized the tool, so the relevance of this tool might not be fully appreciated, yet. Also, the newcomer who used the DOP, expressed that the platform had been a repetition of the Introduction Day, which might point to the challenge that Raytheon (2012) mentions regarding the importance of keeping the contents of the repositories relevant.

Still, certain strengths might be associated with these tools. As Dalkir (2011) explains for knowledge repositories, the knowledge on the DOP and Booklet could also be leveraged on when needed. The idea of making the knowledge available to anyone at any point in time (Newell et al., 2009), seems to be present in these tools which newcomers can access on their own and at their own pace, the Booklet before starting work and the DOP during the first weeks at the company. Moreover, it could be said that searchability and accessibility were characteristics contemplated for the Booklet, which, according to OM01 was "a much simpler way to get to know the company" and "find the most important" than going through the company's intranet, at least during the first week or month of employment.

Supportive actors as mentors

By considering SDC's (2013) conceptualization of mentoring it can be noticed that many relationships the new employees developed during the OP represent mentoring relationships in which the new employees learned from knowledgeable colleagues. Some of these mentoring relationships were by pairing (ibid.), like the ones with the

GL, 'fadder', QL and PL, who had assigned roles to support newcomers during the onboarding (official supportive actors); while others were by association (ibid.), such as those with senior employees. In contrast with the rest of the official supportive actors, the PL role during onboarding is limited according to the Checklist to an "introduction about the project", which is supposed to happen during the first week. However, as OM01 commented, the PLs can also be involved in the newcomers' development because they maintain daily interaction with new employees. Similarly, the relationships with seniors take place daily, and as newcomers recounted, learning from them, as well as from PL, occurred in day-to-day activities. It could be assumed that the informal-basis working, that according to Massingham (2014b) is a great part of mentoring, and which is present in the relationships of newcomers with seniors and PLs, is what further characterizes these actors as mentors, regardless of not being contemplated in the formal onboarding or having an apparent limited role. In fact, based on this, it could be assumed that the mentoring relationships with these two actors are probably the most constant ones.

As suggested by the literature, it could be said that newcomers' learning from mentors happened in different ways. The most obvious way was by means of explanations (SDC, 2013) from the mentoring roles by pairing, who guided by the Checklist did the tasks assigned to them, which involved informing the new employees about diverse topics. Besides, explanations and discussions (in general talking), were also part of the main approach used by seniors to teach newcomers, as observed in the collected data.

Another part of newcomers' learning from mentors could be through mimicking attitudes and behaviors, as suggested by Bass et al. (1987) for leader-member relationships, and which was observed not only for relations between newcomers and their 'bosses' (GLs and PLs), but also with seniors. Data from both sides (mentors and mentees) support this learning approach. Mentors at AFirm expressed they expected newcomers to learn from their behaviors, for example GL01 described their guidance to newcomers as "a combination of what I say and what I do" and explained that to show the company's 'feedback culture' they must act as they expect the newcomers to act in order to encourage the same behaviors in them; and S01 commented that some things, like the importance of work-life balance, are transmitted by giving the example. This way of learning was also mentioned by a few new employees; one of them expressed: "my bosses [GL and PL] have the craziest ideas. So that stimulates me to also be creative" (NW04) and when talking about learning from seniors, said: "it's mainly talking, but you can also perceive sometimes how the person acts, that' s also learning […]" (NW04). This mentoring about behaviors and attitudes seems to be related to the company's culture.

The support from mentors to mentees by guidance and coaching (SDC, 2013) was also identified. It could be in the form of feedback that mentors, such as the GL, PL and senior, provided to newcomers in everyday work, or that the GL provided in the career development meetings. Additionally, mentors such as the GL and PL would guide and coach new employees with their managerial decisions and support their development in their profession and as employees at AFirm. The data indicates that these decisions could include the following: the selection of the projects in which newcomers work based on what newcomers need to learn, which according to GL01 is important that

GLs have in mind; the planning of training according to the newcomers' career development plan done by the GL; the recognition and embracement of new employees' ideas, opinions and participation, that the PLs could provide for newcomers working in the projects they led; the support of newcomer's requests concerning their well-being, career and development interests, for example when one newcomer requested to their GL to change group and another asked their PL to change project. Seniors' mentoring could also consist in guiding by acknowledging new employees' ideas and working with them to make the ideas work, which according to newcomers taught them about the architecture discipline or it made them feel involved in the projects. Findings also reflect that 'Fadders' could guide new employees in their social context when they introduced new employees to colleagues or helped them discover the routines and work life at the office.

Another action for mentoring contemplated in the literature and observed in the case study was encouragement (SDC, 2013); like that given by GLs to new employees that want to join certain units or networks of AFirm or want to do trainings in accordance to their career development plans; or the encouragement by seniors when new employees want to develop their career in the area of expertise of the mentor, which could 'push' the employee to pursue that path. Storytelling (Massingham, 2014a; SDC, 2013; Swap et al., 2001) could also be considered part of mentoring by some mentors like the seniors, whose stories, according to one new employee, aided in newcomers' learning.

Many of these actions of guiding, coaching and encouraging could be interpreted as the mentors' legitimation of newcomer's participation within CoPs, explained by Lave and Wenger (1991). In accordance with Lave and Wenger (1991), all these forms of support reflect how mentors acted as sponsors, allowing newcomers (i.e. mentees) to develop relationships with other co-workers and experiences that helped them learn. Furthermore, findings suggest that sponsorship was mainly relevant for newcomers, due to the influence it could have in their career development. In this regard, newcomers explicitly expressed that this support from senior mentors could have an impact in their career development, and that it could positively influence the projects in which they worked or the extent to which they were recognized within the company. These were considered as opportunities for their career development. It should be noted that there is data from a minority of interviewees that indicates that not all the new employees received this sponsorship (see Section 5.3.1). The sponsorship of the 'fadder', on the other hand, could facilitate, as one newcomer called it, the 'building of a social network'.

In line with Swap et al.'s (2001) remarks on mentors' ability to teach, findings on the mentoring nature of most working relationships of newcomers showed that having competence developed through practice, is what allows other employees to teach newcomers. In some cases, it could be expertise gained from practice in a 'particular field' (Swap et al., 2001) as OM01 explained for some of the official supportive roles with the example of the QLs, who "have a responsibility to be a quality leader in the group, so they're very good at quality issues […]. So, they have a responsibility to give information about this to the new employee"; or as HR01 said about the GLs who "hopefully have the right amount of leadership knowledge" because they are trained for their roles as GLs. In the case of the 'fadder', more than others, one could say that the knowledge that allows the 'fadder' to have such role is related to a 'particular organization' more than a field (Swap et al., 2001), since their assistance relates to practical questions and introducing the newcomers to the 'social context'. It could be assumed, thus, that the 'fadder's' involvement as employees at AFirm, and specifically the Gothenburg office, is enough to provide them with the necessary skills for their role. Teaching from the expertise they have developed with years of experience in the architecture field and in the organization was found to be the case of the senior employees, who interviewees considered 'experienced', usually for their long tenures at the company, and who were said to have experience in many areas that newcomers lacked.

It must be noticed that to some extent the expertise of the mentors in the OP is always related to the 'particular organization' (Swap et al., 2001), since knowledge is assumed as context-dependent (Hislop, 2013), and after all, the mentoring aims at newcomers' adjustment in AFirm and specifically the Gothenburg office. Understanding this and supported by the previous discussion, therefore, it could be stated that the learning from mentors concerned a variety of topics, which sometimes were not the ones officially foreseen for each role, for example when GL01 guides about behaviors that represent company culture, GL and PL incite creativity, PL supports newcomers' career development. These topics include the company and its culture, the work environment, the newcomer's role and career development, the discipline (e.g. architecture or project management), and practical and social aspects that new employees must learn for their adjustment (see Table 5.4).

Table 5.4. Different mentoring roles at AFirm's onboarding process.

Mentor	***Area/field/topic of mentoring***
Group leader	Newcomers' role, well-being and career development; the company and its culture.
Quality leader	AFirm' IT system, digital tools, quality systems and routines.
'Fadder'	Social interactions and environment, and practical matters regarding work at AFirm.
Senior	Ambitions and creativity, the company and its culture, the project, and the profession, including design, technical skills, strategic thinking and prioritizing task.
Project leader	Matters of the project, but also newcomers' well-being and career development, and company culture (reflected in behaviors).

Under the same notion of informal-basis working (Massingham, 2014b) and peer mentoring (SDC, 2013), used to characterize the senior-newcomer as a mentor-mentee relation, relationships of new employees with other colleagues might also be considered as mentorship. Few data was found to support this, maybe because of the difficulty to identify such relationships in which, as SDC (2013) explains, the roles may interchange depending on the knowledge that is being transferred, or maybe because this study initially focussed on examining notable T&Ps, later to found out that many elements integrate the onboarding system. Nonetheless, acknowledgement of this peer mentoring could be observed in the following: the indication by most employees that learning in projects comes, among other things, from colleagues; comments that explain this learning could be related to several topics , e.g. quality issues that the QL did not explain to the newcomers, or aspects about the company like its sustainability aim or research orientation; or the occasional mention of co-workers from other units to whom newcomers turn to, because they are knowledgeable in specific topics.

Internship

As previously mentioned, the internship at AFirm could be considered a realistic job preview (Bauer, 2010), and consequently, part of the pre-boarding for the three newcomers who had this experience before starting their employment at AFirm. Moreover, the data shows similarities with the structure and results of the onboarding process. There was a system in place with supportive roles (i.e. manager, mentor, buddy) and immersion in everyday work and working with different employees; additionally, one of these interviewees mentioned that they had the opportunity to participate in company events similar to the Introduction Day. Thereby, suggesting the possibility that a similar KT and learning process occurs during the internship, one that consists of informal learning and collegial relationships (Snyder and Wenger, 2010) while being involved in the CoP productive activities (Lave and Wenger, 1991). It could even be argued that as interns they started to develop their identity as CoP members (ibid.), since interviewees decisions to return to the company could be associated to having developed a 'sense of belonging' (Wenger, 2010a). The learning and experiences that newcomers associated with the internship are certainly comparable to those that interviewees described for the OP: having understood the office culture and how the company worked, mentioned by the three of them, or being able to establish connections within the company, mentioned by a couple. In fact, findings show that the internship rendered some of the T&Ps of the onboarding 'unnecessary' (e.g. 'fadder', Introduction Day).

5.2.2 Substitution effect

It was found that when the T&Ps failed to convey their purpose (for different reasons), they could be substituted by other co-workers or by the newcomers' engagement in practice. As Swap et al. (2001) mentioned, it is the expertise gained through years of practice what allows someone to take on a mentoring role, thus any person with more experience is likely to be capable of teaching another. Being in a CoP where members share a repertoire of resources and have developed the knowledge to be able to contribute to the CoP's practice (Wenger, 2010a), it is understandable that a mentoring role could be fulfilled by any other member, as it happened for some newcomers whose 'void' of a 'fadder' was filled by another co-worker who supported them in activities pertaining to the role of the 'fadder' (e.g. introduction to colleagues, asking questions, finding their way around the office). Such substitution by another co-worker could be seen too in the findings that showed that the 'fadder' was considered of help to newcomers in times when the GL or PL were too busy.

Similarly, consistent with the notion that participating in the CoP and 'collegial relationships' enable learning (Snyder and Wenger, 2010), findings showed that the involvement of newcomers in day-to-day work and work relationships allowed in other occasions the transfer of knowledge that was supposed to take place by means of other practices. For example, as it happened for the newcomers who had not had the meetings with the QL, yet, but said they were able to learn the things while working; or when the few interviewees that found the Introduction Day unnecessary associated their feeling with the time they had already spent at the company or using the company's intranet for their work. Moreover, the repetition of content in some T&Ps, for instance in the Introduction Day, Internship and the DOP, could also be considered as indicative of the ability of the system to substitute the objective of certain T&Ps.

This phenomenon is an expression of the system; more specifically, of the part that the context of the onboarding KMS (i.e. the CoP) played in the system to support the learning and integration of newcomers. The relevance of the substitution effect relates to the fulfillment of the KT and learning which permits the development of new employees' identity as CoP members when the system has somehow failed to work as officially planned. Besides, its importance is further indicated by newcomers' interest in achieving the objectives of the T&Ps, especially the mentoring roles; which is reflected in the findings that show interviewees' dissatisfaction with some of the mentoring practices because these did not take place or did not fulfilled certain purposes (e.g. when no 'fadder' was assigned or when the 'fadder' did not approach newcomers). It is also insinuated by the data that that suggests that when the substitution effect took place newcomers were satisfied, because the KT and learning had occurred, even if it did not happen as it was supposed to; for example, when interviewees were not bothered despite not having the meetings with the QL or the fact that newcomers proactively reached co-workers that would take the place of their 'fadder'. Nonetheless, the presence of the substitution effect does not imply that the T&Ps should not exist, on the contrary, it points to the need of achieving the objectives of the T&Ps, emphasizing their importance. Moreover, it fosters an analysis on what prompted this phenomenon and how can one learn from the way it took place.

5.2.3 CoP's as a context for onboarding

Wenger's (2010a) concept of CoP as a social structure with a 'history of learning' that promotes learning in organizational contexts and fosters a sense of belonging, appears to be representative of the context in which AFirm's onboarding KMS took place and newcomers were being integrated. First, Snyder and Wenger's (2010) proposition of informal learning and social relationships as enablers of learning within CoPs seems to align with the KT that facilitates learning during onboarding (described in the previous section), insinuating the possibility of a CoP as the setting for the onboarding KMS. Second, the OP itself and the interactions of new employees with the T&Ps, indicates similarities to the development of CoP members (see more in Section 5.2.4). Third, the comparison between the literature referring to the elements that define a CoP member and the findings regarding the aspects that newcomers were supposed to learn, seems to suggest a parallelism between new employees and CoP members. Finally, the idea reflected in the findings and supported by the onboarding literature, that for their adjustment new employees must learn diverse aspects of the company and their roles to become productive employees, might insinuate that newcomers were being integrated into this social structure. (See more in Section 5.2.5). The following sections will expand on this analysis.

Based on the previous reasoning and the notion that an organization' structure might include a CoP (Wenger, 2010b) or an institutional boundary might coincide with a CoPs boundary (Ruikar et al., 2009), AFirm's office in Gothenburg was identified as the CoP in this study. This was further supported by presumed differences in the norms, routines and ways of doing things among the company offices, indicated by the comments pointing to the variations of the onboarding process in each office (e.g. in the pre-boarding) or to activities apparently unique to the Gothenburg office (e.g. the Christmas Party).

5.2.4 The process of becoming CoP members

The learning and integration of newcomers could be equated to the development process of members of a CoP described by Borzillo et al. (2011) in their 5As integration process model. Through this process, newcomers go from peripheral to active CoP members increasing their participation and contribution to the CoP, aided by the onboarding T&Ps. Two phases of Borzillo et al.'s (2011) model were identified: awareness and allocation.

The awareness phase (Borzillo et al., 2011), would be that in which newcomers (peripheral CoP members) are seen as 'knowledge-seekers', and the CoP's leaders, in this case AFirm's management, attract them by showcasing the company's shared knowledge that newcomers seek. The company's management intention of 'attracting' could be seen in the data regarding several T&Ps. For example, the Booklet, was created by the office management to give newcomers an 'introduction' before they started working and was supposed to generate "early engagement and participation" (Sum Up document). While the Introduction Day was planned as a day for 'inspiration' (Sum Up document) and as one interviewee said to "get an in-depth knowledge about AFirm" (GL01). The DOP was created by HR for the new employees to learn what they need to know in the first weeks. And the Sitting can be presumed to attract newcomers with an overview of the company and a discussion of the opportunities for the employees' career within the company.

The other phase of this integration process identified in the case study was the allocation phase (Borzillo et al., 2011). At this stage, the connection between 'knowledge-seekers' and 'knowledge-givers' (ibid.) was, similarly to Borzillo et al.'s (2011) findings, a combination of leaders' incitement and new employees' proactiveness. During AFirm's OP, this type of connections aiming at a KT through a personalization strategy could be seen when newcomers were assigned several mentors, i.e. the official supportive actors (e.g. QL and PL). Mentors could be considered knowledge-givers of diverse knowledge areas, e.g. QLs in quality related issues and company systems, and PL in matters of the project.

Additionally, on the basis that relationships between colleagues (i.e. CoP members), are enablers of learning in organizations (Snyder and Wenger, 2010), and of discussion and debate which foster ideas (Agrifoglio, 2015), all the onboarding practices that incited 'building a network' or meeting co-workers, could be seen as facilitators of the aforementioned type of connections; even if they were not created with the purpose of introducing knowledge-seekers to specific knowledge-givers. Under this logic could be counted practices like the Christmas Party, intended to "expand the network within AFirm" (GL01) and considered "a very good bonding experience" (NW04). Also, the introduction Lunch with the OM, whereby newcomers were able to perceive the flat organizational structure. Furthermore, the internship, which allowed two out of three interviewees with an internship experience at AFirm to make connections within the company before they started their current employment. And finally, the Introduction Day, the purpose of which included 'networking', and during which newcomers met the heads of central units of the company, who might be thought of as potential knowledge-givers.

Moreover, based on the frequent mention of the acknowledgement and value that bosses, seniors and colleagues gave to newcomers' input (e.g. ideas, work) it can be supposed that these connections could have promoted newcomers' contribution in developing the CoP's practice with their expertise. This also aligns with the events that take place during the allocation phase in Borzillo et al.'s (2011) model.

The building of connections and newcomers' contribution to the CoP was further fostered while they engaged and participated in the CoP's productive activities during the Introduction to the Office period, by working in projects, getting assignments, meeting project team members. As it can be seen in the discussion in Section 5.2.1, the role of the mentors (official and unofficial) is identified in this phase as more than knowledge-givers who taught or guided new employees (i.e. mentees) in diverse topics; the support from mentors included introducing newcomers to other co-workers (e.g. the GL or 'fadder' during the tour of the office), inciting them to be involved in different groups or networks, or assigning them to the 'right' project or assignment, in line with the role of 'masters' in CoPs, described by Lave and Wenger (1991).

The process of becoming active members of the CoP (i.e. going through the awareness and allocation phases), according to Borzillo et al.'s (2011) explanation, would be that which new employees were going through during the onboarding. However, it seems that the accountability phase (ibid.) might not be fully reached yet. One indication of this is the lack of data suggesting that newcomers were sharing their expertise or practices in large company events, or becoming responsible for small events, which are some of the actions that Borzillo et al. (2011) report for this phase. Nonetheless, this might be related to the scope of the interviews that mainly focused on the T&Ps for their integration and activities related to the Introduction to the Office, which could have caused to overlook other activities in which the interviewees were involved. Another evidence that suggests that there was not full awareness of new employees' involvement and the value of their expertise, which would happen in the accountability phase (ibid.), is that some of the interviewed newcomers although not feeling new anymore and being able to contribute to the practice still had a feeling of not having their competence and knowledge shown to other members of the company.

5.2.5 Becoming CoP members: developing the members' characteristics

In accordance with Lave and Wenger's (1991) explanation of participation within CoPs, the development of newcomers from peripheral to active members, previously discussed in Section 5.2.4 could also be understood as a process of learning and identity development of CoP members. It could be said that during the onboarding newcomers developed their identity as COP members because they participated in the productive activities of AFirm's CoP with the support from 'masters' (i.e. mentors), and as it was also seen in the case study, with the support from the other onboarding T&Ps. Moreover, the correlation made between being integrated into AFirm and developing the identity traits of CoP members is supported by data regarding both the official plan for onboarding (i.e. objectives and expectations) and the actual experience of the new employees (i.e. newcomer's learning and feeling of being new).

Understanding of the CoP's undertakings

The 'common sense of purpose' (Egbu et al., 2003, cited in Ruikar et al., 2009) or comprehension of the CoP's undertakings (Wenger, 2010a) is compared to the following aspects from the official onboarding objectives: the understanding of the company, its culture, the work done at AFirm and the reasons why it is done. The development of this feature of a CoP member's identity is further supported by newcomers' learning reflected in their identification of defining qualities of AFirm's culture, like its orientation to research and sustainability aim. Some data, like documents showing what newcomers were supposed to learn with the T&Ps, suggests that this learning could be associated to the KT during the awareness phase; other findings indicate that newcomers learned about these qualities through experiences they had in everyday work life, which included working with other employees and in projects, meeting with clients, assisting to company events. This identity trait could also have been promoted during the awareness phase by the KT of the firm's vision, values and goals through the Booklet, Introduction Day and DOP, as discussed in Section 5.2.4.

Furthermore, newcomers' perception of no longer being new was related, according to a few of them, to the understanding of their interests, how to act and their role in the company, which could be interpreted as having understood how they fit within the CoP's aim, and in turn, how to contribute to the community. Data related to understanding this, shows that during the OP new employees found out about ways of working in terms of extra hours, being assigned into projects and working within the flat organizational structure; as well as cultural aspects that relate to how to work, such as the sharing-culture. Findings suggest that this learning about their roles, what is expected of them, how to act, the ways of working and their interests could have taken place during the Introduction to the Office. It could have occurred by engaging in everyday work and relationships, and supported by the mentoring roles, especially those which had daily interactions with them. As the discussion in Sections 5.2.1 shows, mentors would not only teach newcomers about their role and profession, they could also show with their examples how to behave in AFirm, or encourage certain behaviors.

Ability to use the CoP's resources

The capacity to use the CoP's resources (Wenger, 2010a) is associated to newcomer's learning and ability to make use of the company's systems and tools (e.g. intranet and workspace), equipment, networks and the knowledge embedded in these and embodied in their participants, as well as in other colleagues. Findings regarding both the official objectives and expectations of AFirm's OP and the actual onboarding experience insinuate the same analogy.

This identity trait might be reflected in one of the reasons that a few interviewees had for feeling like regular employees, which related to knowing 'practical things'. Data shows that the knowledge of these 'practical things' comprised the use and location of resources for doing their work (e.g. finding their e-mail or knowing where to save documents), and consequently, it could also be related to the tools and IT systems that newcomers mentioned they had learned to use. Within these 'practical things' interviewees also included knowing about the physical environment (e.g. locating their workplace or the lunch area), which could be interpreted as a knowledge that would help new employees to do their work and have a work life amidst their colleagues. Thus, one might argue that this knowledge could be considered part of the CoP's resources, which as Wenger (2010a) states enable CoP members to contribute to the community.

The findings seem to suggest that the knowledge that enabled the development of this feature of the members' identity was transferred through several practices that could be associated to both the awareness and allocation phase. In the first phase (awareness), it can be supposed that knowledge repositories, i.e. Booklet and DOP (see Section 5.2.1), might have a role in enabling the ability to use the resources by transferring explicit knowledge about company tools. This assumption is made from the data collected from the documents, although it was not mentioned by newcomers. In the second phase (allocation), the practices with such transferring function include some of the mentoring roles, whose areas of mentoring concern these 'practical things', i.e. QL and 'fadder' (see Table 5.4). Also, the learning on-the job that took place during the Introduction to the Office served this purpose; according to the interviewees, this practice was the way of learning when they did not have the meetings with the QL.

In addition, it appears that the ability to use the CoP's intangible resources was also associated with employees' feeling of no longer being new, given that some interviewees commented that this feeling was related to knowing the expertise of others. This idea is supported by several comments about the knowledge that other employees had, and which new employees thought they could use (e.g. knowledge from seniors, or colleagues working in different groups or units). From the advantages that some employees mentioned about building a network, more specifically about networking, it seems thus, that the networking opportunities provided by some of the practices during the allocation phase (i.e. practices for 'building a network', everyday work and mentors that promoted networking) could have facilitated the utilization of these resources by helping newcomers to reach knowledge-givers.

Ability to contribute to the community

It could be said that the ability to contribute to the community (Wenger, 2010a), relates to the previous two, given that it might be argued that without understanding the CoP's undertakings or being able to use the CoP's resources a person's participation could hardly result in a valuable contribution for the CoP. Therefore, this last defining aspect of CoP members might be associated with newcomers' learning of the 'work itself', how to perform the duties of their roles, and the rules for working. Knowing all of the above could help new employees to align with the common purpose, or as it was mentioned earlier, to understand how they fit within the CoP's purpose; it could also aid them to leverage on the resources generated from the CoP's 'learning history'. In all, this would be what it takes to become 'productive' and get 'started quickly', as it was referred to in the findings.

This characteristic of CoP members could also be related to having their competences known by other employees, which some newcomers mentioned as part of what would make them feel not new. This seems to have been perceived as a mean to maximize their contribution to the CoP's practice by showing how they have contributed or could contribute to it. Findings show that the building of a network during the allocation phase might have promoted the aforementioned maximization of their contribution, by enhancing newcomers' chances to be chosen to work in projects or help colleagues; and as explained before, by enabling the use of intangible resources.

It seems that by working in projects and assignments new employees had the opportunity to contribute to the community. From the findings it may be stated that the role of mentors, as described by Lave and Wenger (1991) and discussed in Section 5.2.1, could foster participation in everyday work or encourage activities (like joining networks), which consequently creates spaces for new employees' participation. Therefore, aiding in the development of their ability to contribute to the practice. The contribution of new employees is reflected in data from the period of Introduction to the Office that shows that newcomers' involvement and contribution in projects was promoted or that they had possibilities to influence in projects. This is also shown in findings that indicate that their suggestions about how to perform the assigned tasks were considered; and that they had opportunities to proactively take responsibilities, or that they were entrusted with more responsibility. Additionally, their perception of being more involved in the decision-making through share-owning, which is permitted for newcomers (based on the employees' tenure), could also be interpreted as a form of contribution to the community.

Furthermore, both newcomers' ability to utilize CoP's resources and to contribute to the CoP could be associated to one more aspect of the perception of an employee being new or not. That is, the idea shared by half the newcomers, OM01, and GL01, that the perception of being new was relative to other employees' time of employment and experience. This is based on Agrifoglio's (2015) consideration of intangible elements as CoP resources, which suggests the possibility of a connection between an employee's tenure and some of these intangible resources, like experiences. As the interviewees' comments show, the comparison with an employee that started working after a newcomer might indicate to this employee that they had more of these intangible resources to contribute to the CoP than the newly hired; while in relation to employees with more time in the company, the newcomers may have realized that they could still learn, as their colleagues had done. Additionally, these findings seem to be in accordance with the notion of CoPs as structures that result from the members' shared 'history of learning' (Wenger, 2010a), in fact, they might also be highlighting the interviewees recognition of such history in AFirm's CoP.

Sense of belonging

Finally, the development of the 'sense of belonging' in newcomers could be presumed in accordance with Agrifoglio (2015), as a consequence of the relationships between newcomers and other colleagues (i.e. CoP members), and the discussions and debates that these relationships enabled. Thus, this 'sense of belonging' (Agrifoglio, 2015; Wenger, 2010a) might be related to knowing people within the company, which is a reason mentioned once for not feeling as a new employee. Additionally, it is possible to associate this belonging with the feelings of being welcomed, taken care of or seen; these feelings even if not cited as a cause for no longer feeling new, were found to be considered a positive, desired or expected result of practices that promoted interaction and the building of a network.

An indicative of this 'sense of belonging' could be newcomers' use of the plural pronoun 'we' to refer to AFirm or the collective of its employees in multiple occasions, and the comments of a couple of new employees that expressed feeling proud of the work done by the company. The following are some quotes from the interviewees in which they referred to AFirm as 'we':

> I never thought I felt that feeling [of pride] for AFirm […] Until I've met my first customer […] I was sitting with him and I was talking […] and he was asking questions […] he said in the end: 'Wow! I changed all my point of view about AFirm. I didn't know they did this stuff'. That's when I noticed that […] I'm proud to say […] that *we* think of the environment and *we* always aim to make our clients work towards more sustainable cities and stuff like that. And that's what I like to stand for and be proud of (NW01).
>
> *We* don't have a bank where it says: 'go to this person if you're interested in wood construction, go to this person if you're interested in that', you kind of have to know that mostly. (NW03).
>
> The reason why I applied in the first place, for my internship was that I've always associated [AFirm] with a certain kind of quality, like it's not the 'star-architect' office which just has one big creative director. But I think even though *we* don't have that, *we* still create projects that are overall good (NW04).
>
> I like working at AFirm because *we* have good projects, generally, *we* have competitions as well […]. Also, because *we* research a lot, and if you have some

> interest about some subject you have the possibility of research inside the company (NW07).

Based on the previous analysis, Table 5.5 compares the traits that define CoP members, according to the literature, with the aspects for becoming an employee at AFirm. It also differentiates between the aspects considered in the official plan for the onboarding (i.e. objectives of AFirm's OP from the company's perspective), and those from the actual onboarding experience, including the learning of newcomers and their feeling of being new employees.

Table 5.5. Comparison of CoP members and AFirm employees.

Characteristics of CoP members	***Aspects needed to be integrated into AFirm - Firm's perspective (findings)***	***Aspects needed to be integrated into AFirm - Newcomers' perspective (findings)***
'Common sense of purpose' (Egbu et al., 2003, cited in Ruikar et al., 2009) **or** **Understanding of the CoP's undertakings** (Wenger, 2010a).	*Understanding of:* • AFirm. • Work done at AFirm. • Reasons why the work is done. • Culture (in terms of values that define its vision and aims).	*Understanding of:* • Culture (in terms of values that define AFirm's vision and aims, like its orientation to research). • Sustainability aim.
Ability to use the CoP's resources (Wenger, 2010a).	*Learning and ability to use:* • Systems & tools (e.g. intranet, workspace). • Equipment. • Networks.	*Learning and ability to use:* • Systems & tools (e.g. intranet, workspace). • Equipment. • Networks. • Knowledge (e.g. related to co-workers' expertise).
Ability to contribute to the community (Wenger, 2010a).	*Becoming a productive employee and learning about their roles.* • Rules for working.	*Participation in the firm's productive activities, e.g.:* • Promotion of their involvement and contribution. • Possibility to influence projects. • Take more responsibility or being entrusted with more responsibility. • Their suggestions are considered. • Being involved in decision-making.

Continuation of Table 5.5. Comparison of CoP members and AFirm employees.

Characteristics of CoP members	***Aspects needed to be integrated into AFirm - Firm's perspective (findings)***	***Aspects needed to be integrated into AFirm - Newcomers' perspective (findings)***
Ability to contribute to the community (Wenger, 2010a).	*Becoming a productive employee and learning about their roles.* • Rules for working.	*Understanding how they fit in the company through learning about:* • Their roles and interests. • Ways of working (e.g. in terms of working extra hours, working within the flat organizational structure or getting assigned into projects). • Cultural aspects that relate to how to work (e.g. sharing-culture). • How to act (behaviors and attitudes), related to culture.
Sense of belonging (Agrifoglio, 2015; Wenger, 2010a)	*Feeling:* • Welcomed. • Seen. • Taken care of.	*Feeling:* • Welcomed or taken care of: that the company (employees representing the firm, e.g. the supportive actors) dedicates time to them. • Seen: having their interests and strengths considered. *Knowing the people.*

5.3 Barriers of the system

In accordance with the literature, barriers that could affect the participation of members in the CoP, their willingness to share knowledge, and the effectiveness of the KT, consequently influencing their development as CoP members, were identified in the case study. Moreover, it was found that these barriers could be associated to the newcomers' WMFs. The following subsection explains the barriers that had posed a threat to newcomers' development as CoP members, those that were being addressed but should not be overlooked, and how these barriers could be related to the WMFs.

5.3.1 Power struggles

Roberts' (2006) statement on the influence that power in an organization' structure has in the participation of CoP members', would imply that in the present case study in which the company had a 'flat' structure in which power is decentralized (Roberts, 2006), newcomers would have more opportunities to be involved in knowledge creation and sharing. Such supposition is supported by findings reflecting new employees' ability to contribute to the CoP's practice, discussed in Section 5.2.5. Although this was mainly the case, the effect of the distribution of power as implied by Roberts (2006), was perceived on some occasions representing a barrier for participation and thereby, for newcomers' development as CoP members.

It was seen in the case study that power influenced newcomers' participation in the CoP, mainly through the mentor-newcomer relationships. The characterization of mentors' sponsorship discussed in Section 5.2.1 seems to indicate that in most of the cases, contrary to Robert's (2006) suggestion, distribution of power did not hinder the involvement of new employees or their possibility to gain power to influence the negotiation of meaning in the CoP. Newcomers' participation in assignments and projects and the acceptance of their contributions by their bosses and colleagues, as reflected in the findings, could be interpreted as a sign of newcomer's involvement in this sense making process described by Wenger (2010a). However, there is data contradicting the previous, and supporting Robert's (2006) critics about power in CoPs. The statements from a minority about the unequal influence of the seniors, GLs, and PLs, suggest that some new employees did not receive sponsorship because they were not under someone's 'wing', working with an 'alpha man' or had a friendship with their PL. Moreover, the experience of NW05 with their PL suggests that the hindrance of the newcomer's participation in the CoP was related to a demonstration of 'power' from the PL; this is because the working relation with the PL was characterized by the lack of 'power' and responsibility given to them by the PL, the 'control' of the PL over the employee, and the disregard of the newcomer's ideas,

Further ways in which power can hamper members' participation in the CoP related to the influence of other employees not involved in the OP. Coopey and Burgoyne's (2000) statements (cited in Roberts, 2006) about how powerful members can hinder CoP members' willingness to participate, could be observed in the experience of a newcomer who decided not to join a company network because of what can be considered a lack of encouragement from an employee with the authority to decide who could join the network. Even if mentors encourage newcomers (as GLs incite joining company networks), other employees with authority can hinder their willingness to participate. This is an additional reflection of the complexity of the onboarding KMS and the role of the CoP (i.e. the KMS's context). This shows that barriers affecting newcomers' integration process can go beyond what is foreseen in the onboarding plan and result from the interactions incited by the CoP's nature and its members.

It could be said that the barrier that power represented for new employees' participation also had an impact on the corroboration of some WMFs, since it affected the perception that new employees had about certain aspects of the company and their jobs. These aspects contemplate the nature of the organizational support for employees (F2), the equity in the management of employees (F1) the possibility to take on challenging projects (F1), the autonomy that employees could have (F5) and the quality of the working relationships that the employees established as well as the opportunity to establish them (F3).

5.3.2 Legitimation of newcomers' integration

Aspects of the company's configurations like being a network organization and an employee-owned company, reflect a culture that could be said to 'value individuals' and 'foster a sense of community' (Ruikar et al., 2009, p.446), because they indicate an appreciation of its employees' knowledge and knowledge sharing, and the ideas of commitment and belonging, as expressed by interviewees when they commented on what it meant for them to be shareholders. This could be regarded as the kind of culture that Ruikar et al. (2009) suggest that an organization's leadership should cultivate in order to encourage members' participation in the CoP. In line with the latter, and the idea that such culture should facilitate the employees' growth (ibid.), it was found that company representatives (HR01 and OM01) expressed that everyone should support each other and take part in including newcomers. Moreover, considering Massingham (2014a), this form of support could be interpreted as the company's legitimation of the assistance to newcomers as part of the CoP's endeavors, and its way to foster employees' participation and engagement in the OP, in accordance with what was evidenced in the substitution effect by co-workers or in the seniors voluntary mentoring.

Taking into consideration Ruikar et al.'s (2009) explanation on how to profit from the value that a CoP can provide to the organization, it could be assumed that AFirm's culture and the encouragement of knowledge sharing and peer-to-peer learning observed in the case study promoted the environment that allowed AFirm's CoP to play its supportive role in the learning and integration during the OP. It must be emphasized, that following the same reasoning it could be supposed that neglecting to create such environment could result in a barrier for newcomers' participation and their development. Furthermore, it could be expected that this kind of barrier would influence the perception of WMFs in regard to the character of the organizational support (F2), the design process efficacy and working relationships (F3).

5.3.3 Building a network: characteristics of the relationships & opportunity

As discussed in previous sections, the building of connections during the allocation phase (Borzillo et al., 2011) facilitated relationships that had several purposes. One of these purposes is KT, that promoted learning associated to the understanding of the CoP's undertaking and the ability to use the CoP's resources. Also, KS, enabled by networking; the KS allowed newcomers to use the CoP's intangible resources and to show their competences and pasts contributions to the CoP, further promoting their contribution to the community. Other purposes of these relationships are the sponsorship that facilitated learning and contribution to the practice, and the fostering of a sense of belonging in new employees. Thus, it could be stated that building a network supports newcomers' development as CoP members. Two set of issues can become barriers for the aforementioned purposes of such network: the level of trust, nature of the relationships (e.g. conflict/harmony, competition) and quality; and the opportunities and support to build the network.

In line with the literature, the depiction of the relationships of newcomers with their mentors, seems to indicate that the quality and nature of the relationship and the level of trust could have an impact on KT, as suggested by Graen and Scandura (1987) and Roberts (2006); on the effectiveness of the mentoring, in accordance with Casimir et al. (2014); and the work experience, as stated by Graen and Scandura (1987). Positive results of mentoring relations, including a satisfactory appraisal in most cases, the facilitation of KT, newcomers' learning and the sponsorship of newcomers' participation in the CoP, were discussed in Section 5.2.1. These results might be correlated to the indications of high-quality relations with high level of trust found in the data for some of the mentoring roles. For instance, GLs were described as the 'go to' person, someone that cared about newcomers' problems and helped them with anything. Similarly, interviewees expressed that they could turn to their 'fadder' at any time, even when their official responsibilities were over and in those moments when there was no one else to turn to; someone said about their 'fadder': "I felt secure that I had always this person" (NW07). The PLs could also be considered mentors who the newcomers appreciated and could count on, because they solved their problems or gave them feedback for their development, even though it was believed this was not their responsibility. Regarding the seniors, signs of the high quality could be observed in the positive symbiosis of this mentor-mentee relation, reflected in the satisfaction of newcomers in learning from seniors and that of S01 in mentoring and learning from less experienced employees; it could also be highlighted by its spontaneous and voluntary nature, which is the opposite of the structure and compulsory character that according to Massingham (2014b) can result in low-quality relationships.

The positive way in which aspects of the work relations impact on the newcomer's development process, might also be visible in other relationships aside from LMX and the identified mentoring relations. As previously discussed, the following could be said of the relationships with colleagues: they could be considered peer mentoring (see Section 5.2.1), they could substitute mentoring roles (see Section 5.2.2) and on some occasions they were deemed satisfactory to the point that they influenced newcomers' decision to return to the company after their internship. These relationships also exhibit signs of high-quality and harmony, which could be reflected in the positive or neutral opinion that newcomers had about these relations, sometimes described as 'easy'; the openness that co-workers showed to new ideas; the respect of different points of view and the possibilities to discuss these views.

However, some findings suggest that the quality and nature of the relationship and the level of trust can represent a barrier. The data shows a GL which a newcomer could not 'trust' to solve their problems; 'fadders' to whom newcomers could not ask anything or who would not approach newcomers that were counting on this; QLs that newcomers were not even sure if they knew or who newcomers would not approach because they did not 'feel brave enough' to disturb them. Findings of unsuccessful coaching, failed mentoring sponsorship, inexistent KT, and interviewees' dissatisfaction corroborate the literature by insinuating that these results could be associated to the lack of trust and low-quality of these relationships. In the case of the PL, there is also evidence of a low-quality relationship for a newcomer and their PL supporting Roberts' (2006) consideration of the effect of power in the building of trust, as well as the author' statement on the suitability of a high degree of autonomy for successfully leveraging on CoPs. As it was discussed in Section 5.3.1, power represented a barrier for this newcomer's development as CoP member by affecting, among others, the autonomy that the employee could have.

The other set of issues that might represent a barrier for achieving the aforementioned purposes of the network regards the opportunities and support that newcomers have to build the connections. As it has been expressed there were many chances for new employees to build or expand their network, nonetheless, some interviewees commented they would have like more opportunities or thought they lacked support to meet people. Examples of this lack of support and opportunities include the following: the failure of the mentoring roles to approach newcomers during the first period of the OP (e.g. GL, 'fadder') or incite them to join lunch, 'fika' or other activities (e.g. 'fadder'), as well as introducing them to other co-workers (e.g. 'fadder'). In other cases, the new employees were the ones that did not approach their mentors; they felt that their mentors were too busy, therefore making them less approachable and hampering the progress of their relationship building. All of this could be related to limited time & task alignment (see Section 5.3.4). Additionally, it was also found that it was associated with a focus on following the Checklist instead of helping the new employee "getting into the group and building social network" (NW05). Other comments related to the Checklist indicate that this tool, designed to support the practices of the Introduction to the Office, might represent a structure that is not completely necessary. It was found that generally, the Checklist implied doing more activities than those that newcomers found important. The latter coincides with Massingham's (2014b) explanation about structures in the mentoring process that mentees can find restrictive or unnecessary, and that can result in low-quality relationships.

Moreover, monotony of projects or project teams (i.e. working for long time in the same project), prevented one new employee who experienced it from establishing relationships with more people; and even if they found that it might be a practical reason related to the time for building relationships, this newcomer expressed they would have preferred if the company "try to mix more" (NW07). Being assigned work tasks right when the newcomers start their job could also hamper their opportunities to make connections. This is supported by findings showing that those who did small assignments in different projects at the beginning of the OP, had the chance to work with different people, compared to those who started working right away, who missed the opportunity to "get to know, go around" (NW01). Also, opportunities were reduced for those who at the onset were assigned activities that did not involve contact with others (e.g. sitting in front of a computer reading about the company).

Finally, the inexistence of a 'bank' to know the expertise related to some topics that did not have company networks, which was mentioned by one newcomer, indicates difficulties in building a network that would facilitate newcomers' use of the company resources (i.e. knowledge) and in turn their ability to contribute to the CoP. This 'bank' could be what Collison (2004) refers as yellow pages. Although, in line with the author's suggestions on alternative methods to yellow pages, the newcomer explained that they built their network 'through talking', the interviewee's comment points to the possibility of yellow pages as an additional form of support for building a network.

The barriers for networking and the building of relationships might be associated to a couple of WMF of newcomers. On one hand, it could be said that the work relations and networking that facilitated KT, KS, and sponsorship allowed newcomers' development as employees and their career advancement, by facilitating their learning, showcasing their ability to contribute to the CoP and legitimating their participation in the community. Thereby, the barriers explained above could have impacted the perceived organizational support that newcomers received for their development and career advancement (F2). On the other hand, the nature and quality of the relationships per se could influence the possibility of contentedness with these relations and the working climate (F3).

5.3.4 The issue of time & task alignment

Another barrier for the proper functioning of the system could be that of limited time and non-alignment of tasks. Similarly to Hartmann and Dorée's (2015) findings, the present data shows a lack of involvement of some employees in the knowledge process and a separation of these processes from the project work of employees which might have caused the failure of some T&Ps, and consequently the phenomenon of the substitution effect. The authors (ibid.) correlate this hindering in the learning to project-based organizations, like AFirm, and their characteristics such as time constraints. The limited time, associated with the architecture field (Oyedele, 2010), was cited by interviewees as one of the challenges for onboarding, was frequently mentioned in relation to the mentors and the non-fulfillment of their roles, and occasionally provided by the interviewees as a reason for missing out on some practices. This data suggests that a non-alignment of tasks, as described by Hartmann and Dorée (2015), took place causing the unwillingness of members to engage in the KT processes of AFirm's OP.

Even if Hartmann and Dorée (2015) associate this issue with the sender/receiver model of the objectivist knowledge epistemology, the case study indicates that it could also occur for practices with a personalization approach (following the practice-based epistemology). The way in which the substitution effect occurred seems to further confirm this idea. It can be observed from the data that in both substitution types, whether it was ‘fadders’ working alongside newcomers and replacing ‘busy GLs’ or newcomers learning on-the-job, the KT process was aligned with work-related activities. Even in the cases in which colleagues substituted ‘absent fadders’ it could be argued that there was no separation of the KT and work, because the role of the social mentors is easily encompassed within the work life of an employee.

It seems interesting that some of the supportive actors had identified, in a certain way, the need for connecting work to the KT process; for instance, GL01 when they explained how to select ‘fadders’ for new employees or QL01 who suggested that it might be better if the mentor for the quality issues is working in the same project as the newcomer to provide a “more clear connection to the actual work that they’re doing” (QL01).

5.4 Issues in the development of CoP members

Considering vast number of activities that take place during the OP (especially during the Introduction to the Office), it is possible to associate the reasons interviewees gave for feeling like regular employees (no longer new) with having done these activities planned for them. Therefore, suggesting that the development of newcomers’ identity as CoP members could be linked to completing the onboarding activities and the one year-cycle, as indicated by HR01. However, the overall perception of being a new employee in relation to the time of employment (see Table 4.1), shows that most the newcomers still felt new to some extent, after their first semester of employment, and a couple even after a year. Hence, it seems that newcomers’ adjustment, despite being facilitated by the onboarding KMS as previously discussed, is not a matter of just going through the onboarding activities or the year-cycle activities, as suggested by one interviewee when they explained their reasons for not feeling like a new employee. Rather the characteristics of such onboarding could be determinant on the development of new employees’ identity as CoP members.

It was found that new employees had different experiences during the OP and this might be the cause for their various development processes. One of the elements that may have caused different onboarding experiences is the quality of the mentor-mentee relationships, which as explicitly mentioned for ‘fadder’, GL and PL, generated satisfaction or dissatisfaction in different cases; and which according to the literature will affect the effectiveness of the mentoring (see Section 5.3.3). Thus, possibly influencing the identity development. To this should be added the time issue that affected the availability of those roles to provide support (see Section 5.3.4), which could be assumed to vary depending on the workload of each mentor. Besides, as interviewees said, mentors could be good or less good at their roles, be more or less thorough, or more focused on doing the tasks than on what newcomers feel they really need. Hence, there is a possibility that the individual characteristics of the person with the mentoring role (which was outside the scope of this study) and their focus and dedication to the role might have affected the quality of the mentoring relationship, and with it, newcomers’ process of developing their identity. The high dependency of the OP on mentorship, reflected in the five different mentoring roles and the many fields of mentoring that were identified in the process, could signify a bigger impact of this element in the identity development.

Other data points to the unequal influence of senior employees (GL and PL included) in the employees' career development, and its effect in the identity development process. New employees apparently referred to their career development in terms of the projects in which they worked or the recognition they received within the organization. Considering this, an association could be made between newcomers' career development and two aspects that the findings indicate could be related to the influence of senior employees: first, new employees' ability to contribute to the practice, and second, the limited knowledge that colleagues had about newcomers' competence. These aspects are connected to one of the reasons that some interviewees named for still feeling new; thereby, implying a possible relation between the aforementioned lack of equity and the development of newcomers' identity (see Section 5.3.1).

Additional data that indicates the different experiences of newcomers relates to whether the onboarding T&Ps were used or took place, and to the order in which this happened. First, the tools that newcomers used or the practices in which they participated varied for all interviewed newcomers; this is because some of them had the additional experience of the internship, and another interviewee did the DOP. Second, the order in which new employees partook in the T&Ps depended on the date of the beginning of the employment or on the schedules (and available time) of new employees and mentors. These two aspects that differentiated new employees' experiences, occasionally caused an overlap of content, or made newcomers think that the T&Ps were unnecessary. This repetition happened when newcomers used tools or participated in practices that had the same or similar content, and when the KT and newcomers' learning occurred before the T&Ps were implemented. The following T&Ps were associated to repetition: the internship, the Introduction Day and the DOP.

The repetition experienced by interviewees who did an internship could be explained because the internship was not considered as part of the on-boarding process; nonetheless, in the interviewees' experience many T&Ps were unnecessary because they had already learned during their time as interns. Moreover, in relation to the Introduction Day a form of repetition occurred when newcomers had already learned on the job. The perceived relevance of the T&Ps is apparently related, in some measure, to the order in which such T&Ps take place. Findings show that practices that are not implemented according to the planned schedule might be considered unnecessary when they finally take place, because newcomers can learn while doing their jobs. This occurred with the Introduction Day and with the run throughs with the QL; it is believed that with the latter newcomers did not indicate any repetition, because the practice was completely skipped. Even so, some interviewees also expressed that after learning on the job they thought the meetings with the QL were not necessary anymore. Finally, another issue of repetition was that of the content between the Introduction Day and the DOP. Even if only experienced by one newcomer who used the platform, this issue is likely to happen in the future, so it might be wise to try to prevent it. Although not specified by the interviewee who used the DOP, other data (i.e. the DOP itself and the document of the Introduction Day's agenda) indicates that the repetition relates to the explicit knowledge that is transferred through the presentations and the knowledge which is stored in the platform.

Even with this repetition it is apparent that the KT and learning occurred; but it is possible that the development of newcomers' identity as CoP members might have been affected because of the delay in the process or the aspects that were given relevance instead. If this repetition is prevented, challenges of the OP and newcomers' interests could be handled, such as new employees' feeling of being alone or un-noticed and their interest in meeting more people. Moreover, other activities that might foster the development of new employees' identity as CoP members could be emphasized, like the building of high-quality relationships and networking, which would address issues like newcomers' participation being hinder by some mentors and the scarce knowledge sharing about the competences of newcomers and their colleagues.

5.5 Corroboration of expectations

It could be argued that new employees' identity development as CoP members relates to their job satisfaction, given that it was found that during the identity development process is when newcomers formed their perception of the company and job conditions regarding the work motivation factors (WMFs). This study found that during the onboarding a corroboration process occurs in relation to the WMFs, in which the newcomers compare their expectations and their perceived reality. This resembles Cranny et al.'s (1992) description of the comparison between 'actual' and 'desired' outcomes that results in job satisfaction. One can interpret this corroboration as the positive or negative correlation between the expectation formed with the perceived reality experienced during the onboarding process (see Figure 5.2). As the literature indicates, millennials who work in an architecture firm have a set of values and attitudes that slightly differ from previous generations and contemporaries in other fields, and which determine their WMFs. Findings reveal that the 'expectations formed' consist of these WMFs that the millennials working in architecture firms have; but also of their past individual experiences from previous environments; the information they have gathered before entering the firm; and the knowledge they acquired about the company structure, values, way of working, etc., facilitated by the first encounters with the onboarding T&Ps (e.g. pre-boarding, Sitting, DOP, Introduction Day) (see Figure 5.2). After the expectations are formed, during the onboarding process the new employees perceive what is actually happening within the company through other T&Ps (e.g. mentoring) and their involvement within the CoP. For example, when NW02 said: "it is not greenwashing" they referred to the company's sustainable goals and how the interviewee could see it put into action through different practices; or when NW05 realized that the hierarchy of the organization is not what was expected from what it was previously read on AFirm's website. It was seen that if the perceived reality aligned or differed from the expectations formed it would affect the job satisfaction in positive or negative manner, respectively. It is important to point that it was also observed that the corroboration varied depending on the different experiences the new employee had during the process and their relationship with the members.

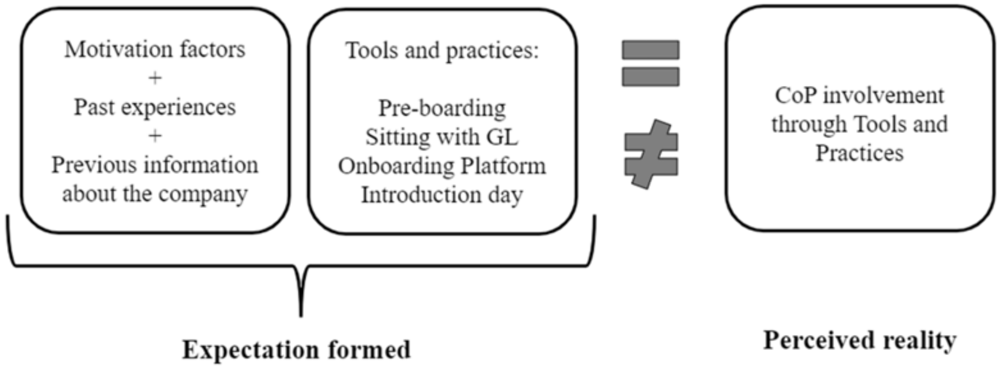

Figure 5.2 Corroboration of expectations

The findings related to this process suggest that, as stated by Newell et al. (2009), knowledge in repositories might not be as useful as that embedded in practice. This is because all knowledge related to the company or job, acquired by newcomers prior to their job at AFirm or at the beginning of their employment, seems to be subject to the corroboration process; especially the explicit knowledge transferred through repositories, like the Digital Onboarding Platform (DOP), Booklet or even AFirm's webpage.

Overall, it could be said that the corroboration process goes hand in hand with newcomers' participation as members of AFirm's CoP during onboarding. The constant renegotiation of meaning that according to Wenger (2010a) characterizes the learning in CoPs, enables the corroboration. This sense making facilitated by the T&Ps and resulting from the interactions of new employees with their colleagues and environment, not only promoted the employees' learning and development as members of the CoP, it also allowed them to form their perception regarding the WMFs and led them to verify if the company could really fulfill the factors which would bring them job satisfaction. The following sections will reveal how this process occurred for each of the WMFs, what elements had particular relevance in the corroboration (e.g. onboarding T&Ps, past experiences), and how the barriers of the system also affect the corroboration.

5.5.1 F1: Working conditions

Even though this factor includes motivational attributes related to the physical environment and tangible resources (Oyedele, 2010), it is believed that these were mainly overlooked because they are seen as mandatory or expected in the Swedish society; instead, the focus group gave priority to other non-tangible attributes of this factor, namely: equity in the management of all employees, tolerance and freedom in completing project work, challenges of the work itself, and contribution to an important cause. Through the factor analysis, the latter were categorized in three major attributes: challenge, equity and cause.

Working conditions: Challenge

In accordance with the literature, the interviewees, as millennial professionals in the architecture and civil engineering (ACE) field, showed a desired for engaging and varying work content which could avoid them the feeling of stagnation (Behera et al., 2011; Kultalahti and Viitala, 2014; Oyedele, 2010). As well, they demonstrated a notion of achieving self-actualization (or learning and developing themselves) through challenging assignments (Kultalahti and Viitala, 2014). Moreover, the perception of new employees regarding these attributes of the challenge category, was found to be mostly influenced by the expectations formed based on their previous work (or study) experience; these includes experiences that incited an interest for learning and gaining additional knowledge or the desire to change a previous job for a more exciting kind of work. It is also possible to see influence of the expectations that the newcomers developed with the support of a few tools and practices implemented during the first week, like the Sitting, in which the expectations and responsibilities of their roles were discussed with the GL.

It is believed that through their involvement in the CoP the newcomers understood the working conditions and the challenge of the work itself. It was observed that the project-based configuration of the organization allowed the employees to be part of different projects or tasks during their employment, which appears to have benefit the perception of this factor’s attribute. It might be said that the fulfillment of this WMF in terms of the challenge attribute, could be associated with an onboarding in which newcomers are involved in short and varying tasks during the period of Introduction to the office. This analysis is indicated by data from the two kinds experiences that most new employees had. For approximately half the new employees, work was fun, and they gained useful knowledge from the varying task; for the others, the projects were too long, and they felt that they were ‘stuck’.

There were exceptions. One particular newcomer wanted to stay in one long project in order to have some stability in their career (NW03); it might be said that this would reduce the challenging aspect, in contrast to what the rest of the interviewees sought. However, it should also be considered that in the case of this newcomer the variety of task at the very beginning of the employment was also pointed as an aspect that brought positive results for their learning and development; although in the end it reached an extreme in which, as the newcomer expressed, they felt their competences and interest were not considered by the company. This particular case, might indicate the importance that according to the literature millennial professionals in the ACE field assign to some factors above all other WMFs, like F2, in specific the attribute of organizational support to employees’ career development; additionally pointing to the fact that the verification of all WMFs might take place in parallel during the OP.

Another aspect that seemed to be relevant for the newcomers in terms of providing the challenge that millennial professionals of the ACE field seek, was when the employees had to take ownership or leadership role of their work. This would be discussed under the autonomy factor (see Section 5.5.5).

Working conditions: Equity

The data shows that the attribute of equity in the working conditions, as described by the literature, the equal treatment of all employees despite their level of hierarchy, gender or background, was seen by newcomers as one of the main values of AFirm; This was due to the information they received about the company before even applying to the job (from friends, own inquiries and the firm's reputation), which portrayed AFirm as a flat organization. Additionally, when considering aspects that the literature associates to this attribute of the working conditions, like tolerance to mistakes, flexibility, and good communication (Kultalahti and Viitala, 2014; Oyedele, 2010; Sang et al., 2009), most of the newcomers agreed that equity was present within the company's culture. Based on the findings it could be stated that employees will assess the equity in the management of the employees based on their perception of fairness and their perception of how their fellow employees are being treated. It was found that this assessment was possible during the onboarding, in particular during the period of Introduction to the Office, normally in job assignments, project competitions, and in everyday work.

Even if most of the newcomer' perception of the equity in the company was positive, as it was previously discussed (see Section 5.3.1), the power relationship with the GL and PL still represented a major challenge towards equity. Considering the comments from a couple of interviewees who had concerns with the lack of equity in the firm, it is possible to state that the negligence of equity could affect new employees' job satisfaction and even represent a reason for contemplating resignation from their jobs.

Working conditions: Cause

The attribute of cause, related to the work itself, is mainly associated to millennials who give significance to works that are in service of an important and challenging cause (Grubbström and Lopez's, 2018). The cause can suggest the company culture, its values, as well as its reputation; all of which were quoted as qualities that influenced newcomers' perception of the company before they joined, and were repeatedly mentioned as some of the reasons why they wanted to work at AFirm in the first place (i.e. AFirm's quality, its employee-owned configuration, research-orientation, and sustainability aim). This knowledge about the company was transferred to new employees before they started their jobs or their internships; thus, highlighting the relevance of the knowledge transfer during the pre-boarding in the formation of newcomers' expectations.

In accordance with the literature that suggests that the non-fulfillment of WMFs leads to job dissatisfaction and demotivation, comments from several new employees make apparent that alignment with what they expected in terms of the company's cause and values (originally considered good and attractive) was perceived as positive, while differences with those expectations caused dissatisfaction with the company. Furthermore, it was suggested by an interviewee's remark that it was relevant for them to confirm and evaluate this factor during their involvement in the CoP. This new employee stated: "If that [i.e. the core values] doesn't show in the office or in our way of working, then those are just empty words" (NW03). Moreover, it could be seen in the expressed feeling of pride of a few newcomers, that working in a place aligned with their values and what they believe in was not only important but provided another layer to their sense of belonging.

Corroborating Grubbström and Lopez's (2018) and Kultalahti and Viitala's (2014) findings, data from the interviewed newcomers, but also from OM01 who indicated that AFirm does not offer the highest salary in the market, seem to insinuate that the value of working for a cause was highly esteemed by the new employees in comparison to financial rewards. Making this, one of the biggest changes of millennials from previous generations who focused on more basic needs (Gupta, 2011; Notter, 2018).

5.5.2 F2: Organizational support

From the literature and the findings of this case study it could be said that this factor relates to three aspects: the need of employees to develop and feel supported, personally and professionally, with particular emphasis in their career development; the kind of support given (and sought), which includes leadership style, mentoring, feedback, recognition of efforts, etc.; and the elements of the company that play a role in the organizational support, like the managers/leaders and the company' structure.

<u>Organizational support: Career development and welfare</u>

In line with Oyedele's (2010) findings, this case study suggests that the interviewed newcomers valued the concern that an organization can pay to employees' welfare, because of the satisfaction and dissatisfaction they expressed regarding the following aspects: the support that the onboarding process implied, the time that mentors dedicated to them (e.g. to solve their 'problems'), the consideration given to their interests and the best use of their skills. Growth and development seem to be even more crucial aspects for millennials in the ACE field than welfare, in particular career development (Kultalahti and Viitala, 2014; Oyedele, 2010). Corroborating Wetprasit's (2006) indications, most of the interviewed new employees seem to have sought career development over salary. The data showed the importance that newcomers gave to this aspect, for example in the reasons most of them provided for remaining at the company; their interest in networking; and the critics that were done to the unequal influence of seniors (GL and PL included) in newcomers' ability to work in certain projects and be recognized within the organization.

Many of the new employees decided to join AFirm for the prospective career development and learning. Practices and tools like the Sitting with the GL, the Introduction Day, the Internship, the Booklet and the DOP provided an overview of different ways the employees could develop their skills and knowledge within the organization, through study trips, e-learning programs, the development networks and knowledge-sharing.

Organizational support: Leader-member relations

As the findings show, the new employees' personal development plan starts since the interview period. A threat to the satisfaction of this factor was observed at the onset of the employment. An apparent delayed (and in some cases failure) in the communication about the skills of the new employees to their GLs, which could affect the career development of newcomers, occurred when GLs were not present during the hiring process. This is supported by the data of some interviewees that complain that their skills were not used correctly; one of them actually attributed the lack of knowledge of their GL about their skills to the miscommunication caused by this particularity of the hiring process. Data shows that during the onboarding process certain circumstances could affect the perception of the actual development prospect of new employees, like those in which the Sitting could not take place during the first week or even first month, because this is an important practice in terms of the employees' career development as their development plan should be discussed in this meeting.

Nonetheless, the major influence in the perceived reality regarding this factor seems to be the LMX (the leader member exchange); which corroborates the literature that indicates that attributes of this factor relate to the relationship between the employees and their superiors (Grubbström and Lopez, 2018; Oyedele, 2010; Sang et al., 2009). As it can be seen from the data, these relationships could provide (and in some cases denied) the kind of support that new employees need for their development and which the literature mentions: adequate feedback on projects (Oyedele, 2010) and in other areas such as career paths or performance in general; recognition of contributions and efforts (ibid.), in every day work and in architecture competitions; the consideration of the suggestions the employees make (Sang et al., 2009); a coaching leadership style (Grubbström and Lopez, 2018) characterized by the mentoring practice; the empowerment and involvement of employees (Behera et al., 2011) through the sponsorship of mentors; facilitation of skills development (Kultalahti and Viitala, 2014; Oyedele, 2010). From the quality of the LMX (see Section 5.3.3) will depend if the member (new employee) is receiving supportive communication from the leader/superior (in this case GL and PL) (Michael et al., 2005) and if development practices like mentoring are encouraged (SDC, 2013), or if the mentoring is effective (Casimir et al., 2014); in all, it could determine if the expectations formed about the support that the organization provides for their development are met. As discussed in Sections 5.3.3 and 5.3.4, other detected aspects like lack of time, non-equity in the treatment of new employees and power struggles can also be associated with the building of high quality relationships and the support of newcomers' growth and development. Thereby, it could be said that the previously discussed 'barriers of the systems' (see Section 5.3) can also influence the perceived reality in relation to this factor, representing a perceived hindrance of the development in some cases, according to the found results.

Organizational support: Structure

The company' structure can also facilitate organizational support. AFirm has been described as a flat organization. Its structure allows employees to assume leadership positions, and later return to hold regular, subordinate roles. According to several interviewees, this flexibility and ‘flatness’ in the structure tries to encourage accessibility between members and allows networking and knowledge sharing; in all, it enables the building of supporting relationships/connections for new employees’ development. It can be observed that there are practices that aimed to show the organizational support in terms of the opportunities that the company’ structure provides. It could be stated that the Lunch with the OM and the Introduction Day are some of the most relevant practices in this respect, because they showed firsthand the aforementioned accessibility. Additionally, data concerning the connections that newcomers were able to stablish during their internships and their learning about how the company worked, imply the role that the internship has in forming new employees’ expectations of the organizational support. Moreover, findings indicate that previous experiences of employees are significant in how newcomers perceive this factor, when referring to the support facilitated by the structure. OM01’ comments indicate that a former working experience in a company with a more hierarchical structure could represent a challenge for embracing the support of AFirm’s ‘flat’ structure, in contrast with the effects of arriving fresh out of the university. In the light of this two possible experiences and their influence in the expectations formed, the case study corroborates the significance that the internship, as a ‘realistic job preview’, can have in preventing unmet expectations according to Bauer (2010).

Descriptions of newcomers’ participation in the CoP’s productive activities during the period of Introduction to the Office reveal the perception of a reality that reflects the organizational support enabled by AFirm’ structure, for example: the possibilities for networking, how easy it was to ask anyone, and knowledge sharing without employees fearing they would lose their positions because of it. Corroborations that differ from the expectations about the flat structure and ways of working in AFirm, and which were negative or not entirely positive, can be observed for a couple of newcomers; these, contrasted a perceived negative or more complex reality with the expectations they had from the internship or from the information in the homepage of the company. It could be said that through the involvement of new employees in the CoP the reality is perceived not only from the newcomer’s own experience, but as one of the aforementioned cases show, from ‘communications’ or ‘conversations’ with colleagues about their experience. From findings like this it is possible to see the relevance of these ‘conversations’ and interactions with other CoP members in comparison to official statements of the organization. The observed negative result in the corroboration process because colleagues’ stories of their own experiences were accepted as the reality, disregarding the company’s explicit statements (e.g. AFirm’s webpage), supports Swap et al.’s (2001) findings about the strength of stories above abstract data.

Barriers like those related to legitimation of newcomers’ integration (see Section 5.3.2) and time and task alignment (see Section 5.3.4), could influence the corroboration of this factor during this period, because of the already discussed implications that these have in the participation of all employees in the knowledge transfer processes and the integration of newcomers, as well as the participation of newcomers in the CoP’s practice, all of which if hindered could represent a dissatisfaction with the support that the organization structure could provide to new employees. Nonetheless, in most of the cases what the newcomers perceived from their involvement through the CoP, did not seem to be different from what they have expected, nor it appear to be unsatisfactory. The major concerns and dissatisfaction appear to be related to the power struggle with leaders (already discussed) when mentoring did not provide the expected organizational support.

5.5.3 F3: Design efficacy and working relationships

This case study reveals that during the onboarding process new employees were able to positively corroborate the following attributes associated to the design efficacy and working relationships factor: harmony of the working relationships (Oyedele, 2010), a positive climate, nice colleagues and work community (Kultalahti and Viitala, 2014), as well as social relations (Behera et al., 2011); also, satisfactory working methods (Kultalahti and Viitala, 2014). The expectations regarding this factor appear to be mostly dictated by the intrinsic motivations of millennials in the ACE field, and not so much by past experiences of the interviewees or previous information that they had about the company. Nonetheless, it could be seen how the idea of an interesting office culture that attracted many of the newcomers to AFirm, could be associated with expectations about a nice work community and attractive working methods. Moreover, it is believed that also a few onboarding practices and tools might provide a preview of this factor's attributes which would influence the expectations of the newcomers. One of these practices is the Internship. The glimpse that this pre-boarding practice gave newcomers who experienced it, about how it would be to work at the company, and the relationships they stablished during this time, could be related to a favorable idea regarding the social and working relations, and the ways of working within groups; supported by the positive comments about the Internship and its association to the interviewees' desires of returning to AFirm. The other tools and practice are the DOP and the Introduction Day, which in different forms are able to convey how AFirm' structure works. This knowledge about the groups, networks and roles in the organization, their competences or knowledge, and the knowledge-sharing culture of the firm, which many newcomers found useful, could be interpreted as a reflection of the working approach used in the company which the findings revealed were later corroborated by the newcomers through their involvement in the CoP.

The apparent cohesion of the teams, that according to previous research (Kultalahti and Viitala, 2014; Oyedele, 2010) reflects this WMF and the good working climate and relations (Behera et al., 2011; Kultalahti and Viitala, 2014; Oyedele, 2010) are suggested by newcomers' accounts about the working relations they developed during the Introduction to the Office, while engaging in everyday work. These relations with colleagues were deemed positive or neutral, and in general with colleagues and leaders or senior employees, they were filled with agreement, receptiveness of new project ideas, respect and discussion of different points of views, work to develop newcomers' ideas and encouraged participation of newcomers by seniors. All of these suggest teamwork, good communication, trust and active participation which the literature (Kultalahti and Viitala, 2014; Oyedele, 2010) associates with a positive appreciation of the design efficacy and working relationships factor. The work of the QL in the onboarding, seems to have a significant role in achieving the design efficacy, since it allows the newcomers to be on the same page as the rest of their teammates.

Additionally, it could be stated that the work in assignments and projects is particularly important in terms of corroborating the working methods (Kultalahti and Viitala, 2014) because this part of the onboarding process, which was referred to as the best way of learning, allowed the new employees to experience that way in which things are done at AFirm, the easiness to ask questions and reach knowledge, the indiscriminate sharing of that knowledge among employees, and the encouragement of involvement. Even more obvious appears to be that working in projects in itself was the main way in which newcomers were able to perceive the reality of the attributes related to the working climate and social relations (Behera et al., 2011; Kultalahti and Viitala, 2014; Oyedele, 2010).

The harmony of the working relations could be threatened by the power struggles, as it can be observed in the case of the relationship of one newcomer with their PL. Nonetheless, it seems that most time this factor is easily satisfied, because the data indicates that newcomers can change groups and project teams, which was useful for a few of them in situations when there was dissatisfaction or a desire to improve the conditions related to this factor. It should be added that especial emphasis must be paid to the barriers of the system (see Section 5.3) since all of them relate to the character of the interactions and nature of the relationships that new employees can have with their colleagues, thus possibly affecting the corroboration this factor.

5.5.4 F4: Efforts recognition and rewards

It could be argued that for the interviewed newcomers owning shares of the company represented two kinds of incentives for their work; one was financial, the other could be seen as a gain in autonomy, based on the association with the forms of empowerment and the feeling of working for themselves discussed in Section 5.5.5. Additionally, it could be claimed that another form of reward that new employees expected was in terms of their development, based on the interest several of them showed in the organization's orientation to research, its study trips, the knowledge of its employees, before being employed at the company. Besides these incentives there is no other data related to expectations of receiving additional rewards (monetary or non-monetary). Hence, the corroboration of this factor seems to be associated with attributes of other two factors. These are: factor two (see Section 5.5.2) and the possibility of growth and development (Kultalahti and Viitala, 2014), especially career development; and factor five (see Section 5.5.5), including the attributes of autonomy ((Behera et al., 2011) and self-sufficiency (Kultalahti and Viitala, 2014).

Consequently, the expectations regarding this factor have a similar origin to those that new employees formed about their development and autonomy. The fact that AFirm is an employee-owned company and that all employees have the possibility to get the incentives mentioned before, as well as its investment in research and many other possibilities for learning within the company (e.g. networks, study trips), were known by new employees before they joined the company. Additionally, T&Ps like the Booklet, the DOP, the Introduction Day, and the Sitting could tell more to the newcomers about how they could benefit from all of this (see more in Sections 5.5.2 and 5.5.5). Therefore, influencing the expectations of the rewards that they could get from their jobs. As well, previous job roles that they developed in other companies could influence the expectations newcomers have regarding their development, in terms of job positions the aim to achieve at the current company.

The corroboration of this factor is possible when the new employees are rewarded when they become involved in the productive activities of the CoP during the Introduction to the Office, getting assignments and showing their skills and that they can manage more responsibilities, collaborating with colleagues, and discussing their skills and interest with those in charge of their development (GL and PL). It can be observed that most of the mentioned rewards or motivating elements that could be considered rewards were means for newcomers' development or represented the gaining of autonomy. These rewards were non-monetary, of the kind cited in the literature, like promotion ((Behera et al., 2011; Oyedele, 2010) or training for a new role, and recognition of efforts and contributions (Oyedele, 2010; Sang et al., 2009) in the following forms: entrusted responsibilities, related to autonomy; communications within the company of a successful project result (e.g. recognition for winning architecture competitions), which could be reckoned as a way of getting noticed within the organization and showing their skills; or even the consideration and development of newcomers' ideas in projects, as it was reported in the work with senior colleagues, which contributed to their development as professionals, but also as CoP members. On some occasions, newcomers did not receive these rewards, but they saw a colleague who did. This suggests that the perception of the possibilities to be rewarded depends on several elements: the relationships of new employees with the people that can give them these recognitions (e.g. managers, mentors), their involvement in assignments, their integration with colleagues in general and subsequently, the sponsorship of mentors, included the 'social mentor' or 'Fadder'.

5.5.5 F5: Autonomy

Characteristics of AFirm like being employee-owned, could be linked to the attributes of autonomy (Behera et al., 2011) and self-sufficiency (Kultalahti and Viitala, 2014) and the willingness for creating their own business that according to Grubbström and Lopez, (2018) millennials have, since being a shareowner of AFirm was correlated by interviewees with empowerment, and a sense of belonging and commitment that could be associated as one of them said to the feeling of 'work for yourself'. Additionally, the flat organizational structure, which a few interviewees associated to independence and changing leadership roles, could be considered a sign of the opportunities for independence (Grubbström and Lopez, 2018) and flexibility at work (Behera et al., 2011; Kultalahti and Viitala, 2014). The findings indicate that new employees were aware of these characteristics before they joined the company and were able to know more about them through the Booklet, the DOP, the Internship, and the Introduction Day. Therefore, the expectations that interviewees formed of this factor were apparently related as much to the motivators of millennial professionals in the ACE field as they were to the information they gathered about AFirm before starting to work there and the insights about the company provided by the first T&Ps they were in contact with. Additionally, it can be assumed that the past working experiences of new employees can also influence their expectations, based on comparisons that a few of them did with their previous jobs; one of them compared their current responsibilities and role at AFirm with their previous job, and another two compared the organizational structure of other offices where they worked and that of AFirm, and identified the benefits of the 'flat' structure.

The ability to participate and contribute to the CoP's practice during the Introduction to the Office period seems to have given most newcomers a sense of autonomy, corroborating the expectations that being an employee-owned company with a flat structure had fostered in new employees. The perception of the reality regarding this factor appears to be directly related to how much responsibility new employees were allowed to take. Thus, several elements of the onboarding process and the tools and practices that supported newcomers' integration played an important role that enabled this corroboration: small gestures like putting them in charge of their own onboarding by giving them the control of the Checklist; the assignment of tasks or projects during the whole OP; the openness to their input, even of more knowledgeable colleagues; and the possibilities to voluntarily take responsibility when colleagues are busy; and especially the empowerment that mentors (who were bosses or senior colleagues) gave to the new employees by entrusting them with responsibilities and their sponsorship, which relates to several of the aforementioned. The role of the mentors is also highlighted in the case of an interviewee who expressed that their work dynamic with their PL did not meet the expectations they had based on the discussion of their responsibilities with their PL.

Moreover, it could be said that this factor is of great importance due to its connection with the development of new employees, which as it was already mentioned, was highly valued by the interviewed newcomers. The involvement of newcomers and the mentoring relationships appear to have enabled, in most cases, a positive corroboration of the expectations that newcomers formed about attributes of the autonomy factor that relate to employees' growth and development, such as continuous improvement, and the ability to put their value and capacity to the best use (Behera et al., 2011; Kultalahti and Viitala, 2014). It could be argued that he autonomy and responsibilities that were given to new employees relate to the possibility that several of them saw of showing their value and skills, be selected for the projects the wanted and in which they would thrive, or achieve the job role they desired.

However, the data shows that not all employees felt as autonomous as they would have liked, which could be correlated to the discussion in Section 5.3.1 about power in the organizational structure and its distribution among members of the CoP that suggest that power can promote or hindered newcomers' ability to contribute to the CoP; consequently, affecting the corroboration of this factor in regard to several of its attributes, including those related to employees development. Although the barrier involving power might be the one that relates the most to the perception of the sense of autonomy, as it occurs for several of the WMFs, all the other barriers bear certain influence because of their connection with newcomers' ability to be involved in the CoP.

5.5.6 F6: Work-life balance

The word that described AFirm's CoP way of recognizing when it is appropriate or not to 'go home' could be 'solidarity' (OM01). From the comments of OM01, it seems that it was acceptable for new employees to leave because of their parental responsibilities or other activities, but it was also expected that they would be solidary, stay and support their co-workers, to show reliability. Opposing to the idea that millennials do not have the 'right' values and behaviors towards work, the data corroborates the literature indicating that millennials in the ACE field do not have an issue with meeting the expectations of work, only that they would also like to have enough time for their personal and family needs (Grubbström and Lopez, 2018), and that they want to find that balance between work and life (Kultalahti and Viitala, 2014).

The work-life balance factor refers to the value both millennials and the professionals within the ACE field give to the relationship between personal needs and welfare, and the demands from their career. The expectations that are formed regarding this factor seem to relate greatly to newcomers' perception of what the profession entails, in relation to effort; and this comes from their previous work experience, which a few referred to as being 'burned out' or dissatisfied with their job, or as it was also seen, from the high demands of their education period.

After changing environment (jobs) or when they started their career at AFirm, it appears that the new employees adopted the community' behaviors and avoided those that threaten their work-life balance. The general answer among interviewees about working extra hours reflects the contradiction that Oyedele (2010) identifies between the work-life balance that the employees in ACE aim at, and the long hours culture of the profession. It also indicates the importance that millennials in this field give to other WMFs like F1 and F2 (Kultalahti and Viitala, 2014) because the newcomers' response was that working extra hours meant a challenging work or having a satisfactory project result, and because it only happened in certain periods of time, it was acceptable for them.

The Introduction Day is a practice that showed some of the new employees how the work-life balance might be in the company. One newcomer commented that during the Introduction Day there was a presentation about stress and how to train for handling it, which seemed to them that there was "a bigger problem, that it's a systematic problem at the whole company, that they should handle in another way" (NW05). Irrespective of the opinion about how to handle a 'problem' as 'big' as this, the introduction of this aspect of the work life at AFirm during this onboarding practice might be considered an example of how to set realistic expectations that can be positively corroborated.

Later, during the everyday work was when the new employees compared their former expectation about this factor. Mainly, the interviewees were able to do this comparison because the structure of the onboarding provided them with their own experience. Nonetheless, a couple of newcomers saw how the work-life balance was at AFirm, based on their colleagues' examples; as discussed before, the members [of an organization] will try to mimic the attitudes and behavior of their managers (Bass et al., 1987), and according to the findings, in the work-life balance aspect this could be extended to the attitudes and behavior of their colleagues. As previously discussed, in this CoP every colleague can become mentor and teach trough their actions, in this case, about how the work-life balance is handled in AFirm (e.g. when S01 goes home to show new employees the importance of this balance). What newcomers observed about the work-life balance at AFirm was considered both positive and negative. A reflection of the relevance that the work-life balance factor has on the satisfaction and particularly on the motivation of the millennial professionals of the ACE field (Behera et al., 2011; Grubbström and Lopez, 2018; Kultalahti and Viitala, 2014; Oyedele, 2010) was found in the negative corroborations; for example when one newcomer saw that their colleagues where working long periods of time for 'free' when the project had a 'tighter budget' and even though they wanted to participate in these smaller projects, seeing how they have to work in them discouraged them from doing so.

Moreover, there is evidence that the attribute of satisfactory organizational concern about employees' safety and welfare (Oyedele, 2010) exist in the case study. The interviewed OM stated that the company has already set measurements to educate their leaders about the work-life balance struggles that can be present within the organization. The PLs and GLs should have the capacity to see the signs in order to prevent burnout or job dissatisfaction. In fact, some of the concerns that the new employees faced were related to the outside environment (i.e. the incomprehension of friends and family regarding their work schedule), and not to the way in which the company manages this factor or the requirements of the profession.

5.6 The key to retention

Retention was found to be related to two aspects. One is job satisfaction and the other is the development of new employees as CoP members. The following sub-section will examine these relations and will also discuss the existence of additional factors, independent from the OP, which seem to influence retention.

5.6.1 Job satisfaction & retention

As discussed in Section 5.5, during their onboarding experience new employees formed a perception of the reality of the company and their jobs, that enabled a corroboration process through which newcomers were able to verify the fulfillment of their WMFs; therefore, being able to form a perception of their future at AFirm, which seems to be the base for the reasons motivating the interviewees to keep or leave their jobs. In line with the literature (Behera et al., 2011; Mitchell et al., 2001; Sang et al. (2009), a correlation was found between job satisfaction and retention, because these reasons could be associated with the work motivation factors (WMFs), that lead to job satisfaction in millennials in the ACE field.

Contemplating the findings of the corroboration process, Table 5.6 shows the connection between the reasons that newcomers gave for wanting to remain at their jobs or leave and the WMFs. An indication of the attributes of each factor that apply for such association is also shown in the table. Although newcomers' plans for a future at AFirm support the correlation between job satisfaction and retention, it should be noted that the correlation is particularly accentuated by those few findings that reflect voluntary turnover intentions. For instance, NW05's intentions to resign to their job due to their career development being hindered, which could be associated to deficient organizational support (F2), unequal working conditions (F1), and lack of autonomy (F5); or NW03 contemplation of changing job at a (past) moment during their OP in which they felt they were being 'seen as a number', i.e. their interests, strengths and weaknesses were not being considered, which could be related to inadequate organizational support (F2).

Table 5.6. Relation between reasons to keep/leave the job and WMFs.

Reasons to keep/leave (*) their job	***WMFs***
Possibilities to develop in the company. *Career development is hindered.	**Organizational support (F2):** Satisfactory organizational commitment to employees' career development, Possibility of growth and development, Employees' immediate line manager and a coaching leadership, Employee empowerment and involvement, Being responsible for outputs. **Autonomy (F5):** Autonomy **Working conditions (F1):** Organization's equity in management of all employees, The way the practice is managed.
Possibilities to learn. *Want to learn inside the company and then experience other opportunities.	**Organizational support (F2):** Satisfactory organizational commitment to employees' career development, Possibility of growth and development, Employees' immediate line manager and a coaching leadership
Satisfaction with the job stability.	**Organizational support (F2):** Satisfactory organizational concern about employees' safety and welfare, Job security.
Appreciation of the values of the firm (sustainability aim).	**Working conditions (F1):** Job content, Contribute to an important cause.
Happiness with the working relations. Happiness with the work environment.	**Design process efficacy and working relationships (F3):** Colleagues and climate; nice work community, Social relations,

	Harmonious working relationship within design team and co-workers.
Satisfaction with the requirements of the job (i.e. hour-wise and emotional)	**Work-life balance (F6):** Emotional state, Balance between personal needs, family needs, and the requirements of a career.
Contentment with the salary.	**Efforts recognition and rewards (F4):** Pay & promotion.

In accordance with the previous analysis and taking into account Mitchell et al.'s (2001) findings which associate the incitement of voluntary turnover to the failure in meeting employees' job expectations, it appears that a corroboration process in which expectations are violated, could prompt newcomers' turnover. As the findings demonstrate, a corroboration that leads to the verification of non-fulfillment of newcomers' WMFs, could cause job dissatisfaction and on some occasions, this could represent a motive to resign. The relation of this dissatisfaction and the turnover intentions seems to be associated with the possibility of improving their situation, which newcomers could also foresee based on the corroboration process. Of the two interviewees that expressed the intention to resign because of job dissatisfaction it can be observed that, when the newcomers thought that a change that could suppose an improvement of their satisfaction would not occur, then they contemplated resigning to their jobs (case of NW05), and when a positive change had occurred the intentions were dismissed (case of NW03). In contrast, when the interviewees corroborated the fulfillment of the WMFs, a connection is seen between their expressed satisfaction and their desire for keeping their jobs. In fact, the retention of the couple of interviewees that planned to leave the job in a near future could be associated with their satisfaction related to the learning opportunities (F2).

Findings indicate that all the WMFs from the factor analysis could be related with retention, in different degrees. Data shows that the possibilities for career development, followed by those for learning, were the most determinant reasons in newcomers' intentions to remain or leave their jobs; both relate to organizational support (F2). The discussion of the corroboration process indicates that other factors associated with the development are autonomy (F5) and the working conditions related to the equity (F1). Associated to the reasons for remaining in their job that were less mentioned are also the following factors: working conditions (F1) related to the work following a cause, in this case, sustainability; organizational support (F2) associated with job stability; the work relationships (F3), which included the relations per se as well as the environment; efforts recognition and rewards (F4), in relation to the salary; and work-life balance (F6), associated to the emotional and hour-wise requirements of the job.

F2 is the most recurrent factor reflected in the interviewees' plans for their future in AFirm and that which is most associated with their satisfaction and dissatisfaction with their job. Also, several other factors seem to be related to it; for example, F1 and F5, which could also be associated to newcomers' intentions to leave their job. Overall, findings suggest that in line with Oyedele's (2010) explanation about motivation of professionals in design firms, organizational support (F2) is the most relevant WMF for newcomers' job satisfaction, and the most influential in their retention. This highlights the relevance of the mentoring relationships and other forms of support for new employees' career development and learning, like the building of a network. In comparison F4, efforts recognition and rewards, was only mentioned once in relation to the salary and retention; in the other cases it was associated to other forms of reward (i.e. recognition) and career development. This supports the literature that indicates that in particular for millennials salary does not play a main role in motivation (Kultalahti and Viitala, 2014), and that for new employees the salary is not as important as for example the career prospects (Wetprasit, 2006).

5.6.2 Development of CoP members & retention

Newcomers' integration into the company was found to be related to their feeling of no longer being a new employee. As previously discussed, this feeling could be interpreted as the development of their sense of belonging and their identity as CoP members, as described by Wenger (2010a). It could be said that the development of new employees as CoP members could be correlated to their retention, on the grounds that it is possible to associate this process of developing the sense of belonging and identity to the 'fit' and 'links', which Mitchell et al. (2001) identify as determinants for employees' intention to remain in their jobs. The 'fit' could be compared to the sense of belonging to the CoP. While it could be argued that through the development of their identity as CoP members, new employees were able to form 'links'. These attachments (i.e. 'links') that interviewees had formed with diverse aspects of the company and job, including the relationships with colleagues, are reflected in the identification newcomers did of values they shared with the company, and their satisfaction and pride with different aspects of the company and their job, as well as the possibilities for their future at the company, expressed in newcomers' perception of AFirm (see Section 4.5) and their reasons for remaining in the job (see Section 4.7). As Table 5.7 shows, the evidence of these links could be associated with aspects of the identity development of CoP members, like the identity traits or forms of involvement during the identity formation.

The 'sacrifice' identified by Mitchell et al. (2001) as the third determinant for employee retention, was observed only in a few instances when the interviewed newcomers explained their considerations about changing jobs. It appears that this determinant is related to the satisfaction of newcomers, since employees seemed unwilling to give up certain desirable or satisfactory conditions of the job that could be associated with the WMFs. An example of contemplating what they might have to sacrifice if leaving their job was found when NW01 decided against quitting because they did not want to lose their "healthy relationship" with their work, which could be connected with work-life balance (F6). Nonetheless, as Reichers (1985) explains, leaving a job means sometimes sacrificing things that employees have grown familiar with so, it might be said that the 'sacrifice' could also refer to giving up the formed 'links' or the 'fit'. This assumption is supported by the relation that some of the identified links have with aspects connected to the WMFs, for example the opportunities to influence projects relate to their development, an attribute of F2; the knowledge within the company (a CoP's intangible resource) or its research orientation relate to the possibilities to learn, also F2; or the relationships that made them returned to the company after the internship or feel integrated (not new) relate to harmonious working relationships and F3. It is, therefore, assumed that employees who have developed their identity as CoP members have more attachments and a greater sacrifice to make when leaving their job than those who have not.

Table 5.7. Evidence of 'links' established through the identity development.

Aspects of the identity development	***Evidence of the formed 'links'***
Understanding the undertakings of the CoP.	Appreciation/praise of the sustainability aim and research orientation. Identification of values they shared with the company.
Use of resources of the CoP.	Satisfaction with the knowledge within the company and networks (intangible resource). Consideration of the ability to use resources (tangible and intangible) as a reason for feeling integrated (i.e. not new).
Participation in the CoP's productive activities.	Contentment with the opportunity to influence projects and have their inputs considered. Appreciation of the sharing culture.
Relations and interactions with CoP members.	Happiness with their working relations and work environment. Regard relationships with colleagues as a reason for returning to AFirm after the internship, for changing groups or for no longer feeling like a new employee.

5.6.3 External factors

As the unfolding model (Lee and Mitchell, 1994) suggests, there is a great variety of reasons why employees would choose to quit their jobs. While path 4: leaving an unsatisfying job, regards the relation between job satisfaction and retention discussed in Section 5.6.1, and indicates the role a company can play in the voluntary turnover of its employees, path 3: leaving for something better, points to those elements outside the company's control.

According to what the literature suggests, findings revealed that there were external factors (outside of the company efforts) as headhunting from other companies, the conditions of the market and staff layoffs at AFirm, that could also be influential in new employee's intentions of turnover. A process of thought in which newcomers questioned their future at the company when confronted with these external factors, was observed; in this process newcomers considered their situations, how things were being handled during the OP and the opportunities they had to influence their future at the company. Leaving for something 'better' (path 3), reflects that a comparison is being made; this thinking that newcomers did gives indications of weighing the 'sacrifice' they should do if they leave the company. Thus, the role of company should not be underestimated. All of the aspects that were pondered by the interviewees are product of the onboarding KMS; therefore, pointing to the relevance of the efforts the organization made for newcomers' onboarding, which, as the discussion has so far shown, could be responsible for whether these aspects were seen as satisfactory or not.

Moreover, in accordance with Lee and Mitchell (1994), it was found that within these elements that are independent from the OP but can be related to turnover, are also employees' predefined plans (path 1). As expressed by two of the interviewees their intentions to leave their jobs were already set at a point in the future when they have learned and were able to continue with their career plans. Nonetheless, even though these new employees seemed to have had their minds set, a question remains whether if their development as CoP members and job satisfaction could change their plans. It could be assumed that even in these circumstances the OP and the development of the 'links' to the company and job could influence how long will the tenure of these newcomers be, because during the corroboration process and the identity development the employees could corroborate their expectations and form attachments to the possibilities for learning withing the company, as many of the interviewees did.

5.7 A critique of the relevance of CoP for the onboarding process

In accordance with the literature, the findings from some of the representative and supportive actors indicate that considering the knowledge era, new employees' retention becomes of the utmost importance to avoid not only an investment loss but a knowledge loss too. Thus, it could be said that the relevance of the CoP regarding KM in the onboarding process, relies on its influence in the outcomes related to the critical factors (i.e. job satisfaction and retention). As the results point to the supportive role of the CoP in the onboarding KMS which could influence the critical factors, it could be said that contrary to Roberts' (2006) questioning, CoP is a relevant part of the KM for organizations, when it comes to the onboarding process.

Whether this support of the CoP is contributing to a pace for new employees' adjustment that benefits the company remains unsure, because it was not explored in this study; however, the suitability of CoPs in this regard, from the point of view of new employees seems to be indicated by the findings. As a generation from the era of acceleration described by Roberts (2006), millennials, according to the literature, might show a similar acceleration in the way they explore and exploit what the labor environment has to offer them (i.e. changing jobs trend). This might bring doubts like those of Roberts (2006) about the appropriateness of CoPs for managing knowledge from the point of view of millennials. Nonetheless, contrary to the literature on the millennial generation, most of the interviewees did not seem to show an interest for rapidly changing their job at AFirm, at least not in the following two years. What the interviewed newcomers did show was the need for relatedness (Kultalahti and Viitala, 2014; Grubbström and Lopez, 2018; Behera et al., 2011) and supervisory support (Behera et al., 2011) indicated for millennials in the literature. It could be said that the interviewees pursued the building of trust and mutual understanding that Roberts (2006) associates with CoPs, because findings showed that newcomers were keen to belong to AFirm's CoP and leverage on its members for their learning and development, by seeking interaction and support from them. Hence, it could be stated that, due to their generational characteristics, the 'slow' pace of CoPs (Roberts, 2006) is not an issue for millennial newcomers' in the ACE field.

6 Lessons learned & recommendations

The present section offers recommendations for AFirm to optimize the onboarding process (OP). Additionally, rather than recommendations, certain points are lessons learned in this study worth keeping in mind.

6.1 Optimization of AFirm's OP

The suggestions of Newell et al. (2009) and Chouikha Zouari and Dhaou Dakhli (2018) for gaining the most out of the knowledge management tools or technological knowledge management system (KMS), seem to be applicable to the onboarding KMS. Therefore, it is understood that the optimization of the OP will depend on the perception of the tools and practices (T&Ps) as part of a system and the comprehension of that system and its elements. In line with this, the following recommendations are a result of considering the relation between the T&Ps, the organizational context of the system (i.e. the community of practice) and the people who participated in the system (using the T&Ps and supporting their functioning). Considering people means, in accordance with Chouikha Zouari and Dhaou Dakhli (2018) and Newell et al. (2009), to take into account their perception and how they interact with the T&Ps.

Being part of a CoP

In order for new employees to develop the sense of belonging ('fit') and attachments ('links') that will give them reasons to want to stay in the company, the onboarding must support their development as members of the CoP. This means they must understand the purpose and vision of the company and how they (i.e. their interests and strengths) fit within the company's undertakings. Additionally, they should have the ability to use the company's resources, both tangible and intangible (i.e. knowledge). Finally, they must be able to contribute to the practice's productive activities, as well as to the development of the practice.

For all of this, mentorship plays one of the most relevant functions, so, the need for mentors and the selection of them should not be taken lightly. It is thus advised to consider training for the employees that will have this role, or at least evaluate before selecting them their aptitude and attitude towards knowledge sharing and newcomers' integration into the company; as well as their availability to carry out the role The kind of relationship that mentor and mentee develop is also important. The points in this section regarding the barriers of the system, provide recommendations and lessons that can be useful for fostering satisfactory mentoring relationships that can assist new employees' development as CoP members.

Meeting development expectations

It is advised to pay attention to the fulfillment of all the work motivation factors (WMFs) of new millennial employees. Moreover, it was found that it is especially important to meet the expectations regarding new employees' learning and career development, as this will influence their satisfaction with several of the WMFs, including the one that seems to be most important, organizational support (F2). Group leaders (GLs) of new employees are significant actors for achieving this objective, because of their obvious involvement in employees' development and career planning; but so are project leaders (PLs), when it comes to career development, and senior colleagues, in relation to learning and overall growth (more on this later). Furthermore, many of the points in this section will facilitate meeting these development expectations, because they address the interest of newcomers from generation Y in seeking support from the company for their development and growth.

The need to assess the OP

As suggested by Chouikha Zouari and Dhaou Dakhli (2018) and Newell et al. (2009), people's perception and use of the T&Ps should be considered in ordered to improve the effects of KMS. Therefore, to enhance the support that the T&Ps can give, the company needs to gather feedback about this system, which is now insufficient (see Section 4.2.2).

The case study shows that prior knowledge about the company and job, especially explicit knowledge like that transferred through the Digital Onboarding Platform or the firm's webpage, is going to be subject to the corroboration process. Since unmet expectations can incite turnover, this process must be taken into consideration. Hence, feedback about the OP could help assess the corroboration process and reveal the barriers for participation. This will allow to align what the company wants to express and what newcomers will actually experience, consequently reducing the chances of violating initial expectations.

The role of senior employees

The majority of interviewed newcomers said they worked with senior employees. This is a practice that is highly encouraged, because it was found that senior employees, although not formally included in the OP, play an important mentoring role. Their relevance as mentors is associated to the apparent constancy of their role, characterized by informal-basis working, and to the many topics that their mentoring comprises. Senior's mentorship is an important catalyst of learning, maybe even the most important in new employees' perception. Also valuable is this mentor's legitimation of newcomers' participation in the community of practice (CoP), which could not only foster their development as CoP members but have an impact in their career development.

Power and the role of project leaders

Powerful employees (i.e. with authority or expertise) can promote or hinder newcomers' ability or willingness to participate in the CoP (this includes projects, tasks, and networks). The influence of power was mainly seen in mentor-mentee relationships, in the form of sponsorship that mentors can provide to newcomers.

Avoiding the barrier that power can generate for sponsorship is particularly important, since mentors' legitimation of newcomers' participation opens plenty additional opportunities for new employees to learn. The sponsorship can be seen as a sort of delegation of the supportive function that mentors have, so the development of new employees will not rely exclusively on mentors, rather on the whole community.

The project leader (PL) is a relevant actor regarding the power issues. Even if the role of the PL seems limited in the onboarding plan, the high impact of power when it comes to their mentorship is associated to the continuous interactions they have with newcomers during day-to-day work and their role in the assignment of tasks and responsibilities to new employees. When a PL uses their power in a manner that represents a barrier for newcomers' participation the effect could be considerably noticeable; it could affect the WMFs of organizational support (F2) for employees' career development and their autonomy (F5), consequently, prompting the intention to leave the company. Additionally, it must be noticed that other employees with power, who apparently do not form part of the OP, can actually influence new employees' participation in the CoP. For more on the role of power, see Section 5.3.1.

<u>How to legitimate newcomers' integration</u>

AFirm's culture was already promoting knowledge sharing and a sense of community which was found to be important to encourage employees' participation in the OP. Although, to further promote participation and a culture that supports this, the following recommendations are drawn from Ruikar et al.'s (2009) findings: ensure that employees' development aligns with the goals of the company; assess employees' involvement in sharing practices and peer-to-peer learning, as well as their collaboration in the onboarding of newcomers; and finally, recognize and reward behaviors that support newcomers' integration into the company.

The idea that everyone must help newcomers to integrate is also important. It was observed that several interviewees believed this, however, the extent to which it was shared by the whole office is unsure; thus, it is important to emphasize it. The integration of new employees represents a gain for everyone because it signifies that they can contribute to the practice. If this is understood and newcomers' integration is seen as an objective of the whole office (i.e. the CoP), everyone's interest in aiding newcomers can be fostered. Hence, this legitimation would be relevant to promote the substitution effect, the mentoring and the mentors' sponsorship of newcomers, and it might even be able to counteract the power issues that could hinder newcomers' participation. For more on the legitimation of new employees' integration see Section 5.3.2.

<u>Time & task alignment</u>

Seeing that lack of time was an issue, it seems important to align the tasks of the actors that support the onboarding (e.g. group leader, 'fadder', quality leader) with their project or other work tasks, to prevent this issue from becoming a barrier for newcomers in terms of not receiving the support they need. This alignment (discussed in Section

5.3.4), will suppose that mentors (and newcomers) would not see the onboarding tasks as secondary or something that takes time from their ‘actual’ jobs. Practices that can support this could be, as suggested by QL01, selecting mentors for the quality-related topics that work in the same project as the new employee; or choosing the ‘fadder’ for newcomers in accordance to how GL01 did it, selecting a ‘fadder’ whose work activities can provide the experiences that the newcomer needs to learn.

It must be taken into consideration that time constrain represented a problem also for newcomers, who would sometimes skip onboarding practices (i.e. Introduction Day). Because the practice in question is an event unrelated to the work tasks of newcomers, an alignment of the kind discussed for the situations with the mentors is not possible. Hence, it appears that the way to prevent that newcomers skip or postpone practices is to try to avoid the time constrain that triggers this behavior of new employees. An option could be to pay attention to the schedule of onboarding practices and the workload on newcomers around the time when the events occur.

Relevance of networking and building a network

Networking means for newcomers to know where the competences in the firm are located (i.e. who is knowledgeable in different topics), and that other employees know the competences and knowledge of the newcomers. The importance of networking as a process that affects the corroboration of the most relevant WMF found in the case study (i.e. F2), must be recognized (see Section 5.3.3). Therefore, emphasis should be given to those practices and roles that allow for this crucial process to occur.

Based on the consideration of the discussed barriers (see Section 5.3.3), some approaches to ensure networking consist in providing opportunities and support for building the network. For example, create more activities in which newcomers can interact with other employees, which interviewees expressed was needed; or ensure variety of projects and assignments in which newcomers work, which as the findings show allowed networking. AFirm could also organize an activity in which newcomers can present themselves, their competences and skills in order for other employees to be aware of these; or the company could use its established networks for sharing the knowledge about employees’ competence and expertise, as suggested by a newcomer.

Moreover, bosses should try to avoid assigning tasks to newcomers immediately after they start their job or other activities that prevent their interaction with colleagues at the beginning of the OP. The company should take into account that practices involving meeting colleagues were deemed important for the first months of employment. Since employees can start their employment at any moment of the year, opportunities for meeting co-workers provided by practices like the Introduction Day and Christmas Party might not occur at the beginning of the OP for some new employees; in this case it is important to ensure that other practices with the same function take place.

As Collison (2004) explains “key to learning what others have done is to know who to ask, and being able to reach them easily” (Ch1). For this reason, another approach that was hinted by the comment of an interviewee, could be to create a skills yellow pages for newcomers to be able to find and contact knowledgeable employees in diverse topics or with expertise in certain types of projects. The use of skills yellow pages is highly encouraged in the literature as a tool that can support knowledge transfer (KT) through personalization approach (Collison, 2004; Hartmann and Dorée, 2015; Robinson et al., 2005; SDC, 2013). A skills yellow pages can be complementary to the company's networks, to connect newcomers (and all employees) with colleagues that are knowledgeable in topics that are not covered in the existent networks, but that are still of interest to the new employees to apply in their work.

In order to leverage this tool, the following recommendations, based on the research literature, are done to promote the use of the yellow pages: support voluntary participation (SDC, 2013); let employees manage the content of the tool and include what they want to share (ibid.); and suggest the inclusion of personal information (e.g. experiences, challenges and social aspects) to create a sense of familiarity between employees (Collison, 2004). In line with Collison (2004), it is understood that the yellow pages can connect employees, but to ensure sharing, a sense of willingness should exist. Hence, guaranteeing networking and that networks serve their purpose could be related to other employees' willingness to participate in the OP, which indicates the need for fostering the sense of community and legitimating newcomers' integration as an important endeavor of the whole office (see Recommendations for How to legitimate newcomers' integration).

Building high-quality relationships and trust

Failure to build high-quality relationships and trust can influence KT and the effectiveness of mentoring, consequently, affecting newcomers' learning and integration. Also, it can affect new employees' happiness with their work relationships and their perception of the organizational support, which could thus bring dissatisfaction (see Section 5.3.3). As the case study shows, this applies for relationships with mentors, as well as for those with colleagues. In order to achieve a positive outcome in terms of the aforementioned aspects, the company should try to work on several aspects. First, as it was suggested for the building of a network (see above), ensure the possibilities to create the connections by avoiding monotonous tasks, fixed groups, and activities low in interaction during the first days of the onboarding. Second, work on the trust and harmony of the relationships. For example, in order to build relationships with colleagues, one could undertake activities that build trust within the groups. Additionally, it is advised to consider the recommendations for How to legitimate newcomers' integration, to foster the desired relationships with all colleagues. Also, mentors could attempt to implement some of the actions which were found to be associated with high-quality and trustful mentoring relationships in the case study. For instance, being available for newcomers and dedicating them time (see Recommendations for Time & task alignment); helping them to solve their problems; and supporting their development by giving them feedback for their career development, teaching them, and through the consideration of their interests and competences when assigning them tasks and projects. Also, mentors should consider the newcomer's opinion on what they need during the onboarding instead of strictly following designated tools (e.g. the Checklist), which might be in line with the company's desire of making the onboarding more personalized.

Moreover, evaluating the relationships of newcomers with their leaders (i.e. GL and PL), could help identify any challenges that power could be creating in the building of trust between them. Due to the limited availability that was associated with the GLs, it is important to flourish a good relationship between the new employee and their 'fadder', who might have more time to dedicate to the mentee. Of course, this does not imply that the GL-newcomer relationship can be overlooked.

The issue of repetition

Findings show that there was repetition during the OP which rendered some of the T&Ps unnecessary. It is worth recognizing this issue of repetition and try to prevent it, in order to facilitate new employees' contentment with the OP and promote their development as CoP members.

Since the internship is one of the practices associated with the issue of repetition, identifying if the newcomers had been interns at AFirm might help to optimize the OP. It could also be important to assess if there are T&Ps that newcomers with this pre-boarding experience do not need, and what do these employees require instead. Considering the implementation of additional T&Ps to provide them with further KT and learning experiences to foster their integration, may be positive. However, further research on newcomers who did an internship and the difference from those who did not might be needed to better understand what these employees need from the OP, as this was not the focus of this study.

Furthermore, another form of repetition can occur when practices are postponed or skipped, and new employees learn on the job. Thus, the importance of controlling the schedule of the onboarding activities and how it fits with newcomers' working schedule; for which it should be known that the main reason why practices were postponed was found to be the lack of time of mentors and newcomers (see Recommendations for Time & task alignment). Additionally, it may be considered if it is necessary to implement (or have the newcomers attend) a practice that is already behind schedule. This should be considered with caution because it might be complicated to assess if new employees have actually learned what they were supposed to learn, before they partake in the onboarding practices. Also,

Finally, for the issue of repetition of the content between the Introduction Day and the DOP a reconsideration of the content in this tool and this practice, based on their strengths is recommended (see Recommendations for The strength of the repositories). Thus, the Introduction Day could be focused on KT through a personalization approach, implementing those activities that the DOP cannot cover (networking, mingling, storytelling); and the transfer of explicit knowledge about the company's practical things should be left to the knowledge repositories (i.e. DOP and Booklet). This could prevent repetition and still aid to achieve the most important objectives identified by newcomers for the Introduction Day, namely: the transfer of knowledge related to the organization' structure, the competence within that structure, and the company's culture.

The strength of the repositories

It could be said that the challenge of keeping the contents of the repositories relevant (Raytheon, 2012), exemplified by the issue of repetition with the DOP, points to Newell et al.'s (2009) reflection about the reduced help that the knowledge from repositories can provide in contrast to that embedded in everyday practices. Thus, a recommendation is to find how the repositories of the OP could support the practices in order to optimize the OP.

The opportunity that the DOP and Booklet, as knowledge repositories, give for accessing the knowledge when needed is a strength that could be leveraged on to solve several issues identified in the OP. If explicit knowledge is mainly transferred through the repositories, more time could be given to needed social interactions, and situations in which the transfer of explicit knowledge is prioritized over the interaction and building of high-quality and trustful relationships could be avoided. Hence, this kind of tools can support practices that aid in fulfilling newcomers' interest in meeting more people and networking. Moreover, the repetition of content in the DOP and Introduction Day could be prevented, and Raytheon's (2012) suggestion of maintaining the relevance of the contents of the repositories could be achieved.

Storytelling: its power and use

The implementation of storytelling was found to be a powerful practice for the transfer of knowledge that could help new employees in their learning and adjustment, as well as in their corroboration of expectations. The strength of stories above abstract data, that the literature and some of these findings reveal, indicates the importance of assessing the OP (see Recommendations for The need to assess the OP) as these stories might not be representing AFirm in the way the company desires.

Moreover, storytelling could be further promoted in order to use the power of stories to reinforce the firm' statements, in line with Swap et al.'s (2001) suggestions. In fact, it was found that some of the videos in the DOP, already have a storytelling format, which indicates that these videos can have a similar positive effect. As Swap et al. (2001) explain stories could particularly benefit the KT related to values, norms and the organization's managerial system, so a suggestion would be to use storytelling for the transfer of this tacit knowledge. For instance, it could be knowledge related to AFirm's decision-making process and its flat organizational structure. These were some of the characteristics related to a negative result in the corroboration process that was influenced, in the case of one newcomer, by the reality that co-workers' anecdotes depicted. Furthermore, as suggested by literature, the use of stories could also help to show how AFirm's core values are reflected in the way things are in the company, which was considered relevant for one newcomer.

7 Future research

The following are some topics that can be further studied. The first topic pertains to the influence of work experiences or the lack thereof with respect to the outcomes of the onboarding process (OP). As the findings about the corroboration process show, one of the elements conforming the expectations that newcomers form about their job and the company is the past experiences, and it might be interesting to examine if there is a difference in the outcomes of the OP for newcomers with work experience or starting right after college. Additionally, this might shed light on how to proceed in relation to the idea the company has about personalizing the OP.

Second, taking into account that organizational support for career development (F2) was found to be the most significant work motivation factor for the interviewees, it might be pertinent to inquire about the role of the development meetings as part of the onboarding system and its relevance on the impact of the OP in the critical factors of new employees. This study did not examine these meetings in depth, because these were considered as part of the activities coordinated by the group leader (GL) as a mentor. The gathered data pointed to the contribution of several practices for the career development, but there are indications that these meetings and the communication between the supportive actors about the development plan of the new employees might play an important role.

Third, research could also be done regarding the different sub-communities of practice (CoPs) within the office. Each group in AFirm might be its own CoP and it is possible that there is uniformity in the results when using a specific group as the unit of analysis. In this study people from different groups were interviewed and that might have given the diverse feelings of being a new employee in relation to the employment time. Findings show that there were differences in the hiring process of newcomers depending on their group that might affect the relationship of newcomers with their GL and the sharing of new employees' competences and knowledge, and in turn the development of their identity as CoP members and the effect on their critical factors.

Fourth, based on the evidence found of the variations in the tools and practices implemented in the diverse offices of AFirm, a comparative study of the OP across offices could be done with the objective to identify possible best practices that could help to optimize the OP in AFirm's offices.

8 Conclusion

Considering knowledge from a practice-based perspective, as both thinking and doing, and context dependent, what newcomers must learn during the onboarding process (OP) could be regarded as 'knowledge'. Hence, looking from a knowledge management (KM) perspective the onboarding could be interpreted as a knowledge management system (KMS) (depicted in Figure 8.1), in which the onboarding tools and practices (T&Ps) support a knowledge transfer (KT) process. This KT, consisting in obtaining, internalizing and applying knowledge, was found to facilitate newcomers learning and their adjustment, through their development as members of a community of practice (CoP). Becoming a CoP member entails the development of a sense of belonging and identity traits of CoP members, namely understanding of the CoP's undertakings, ability to use the CoP's resources, and to contribute to the community. A CoP as a social structure with a 'history of learning' that promotes learning in organizational contexts and fosters a sense of belonging, was found to be representative of the context for the onboarding KMS. The CoP is one of the system's elements supporting the development process of new employees; an expression of this support is the observed substitution effect, that ensures the fulfillment of the KT in cases of failure in the official onboarding plan.

This thesis set out to analyze the effect of KT in the integration of millennial employees in an architecture firm by examining the effect of the onboarding T&Ps in the two critical factors (i.e. job satisfaction and retention) of millennials in the architecture and civil engineering (ACE) field. Nonetheless, one of the most interesting conclusions that can be drawn from this study is perhaps that a KM perspective highlights the systematic configuration of the OP, suggesting that the T&Ps are not the only elements influencing the critical factors of millennial new employees and their integration into the company. Unforeseen practices and actors, the context of this system and the interactions of the actors, also play a role in newcomers' learning and adjustment into the company.

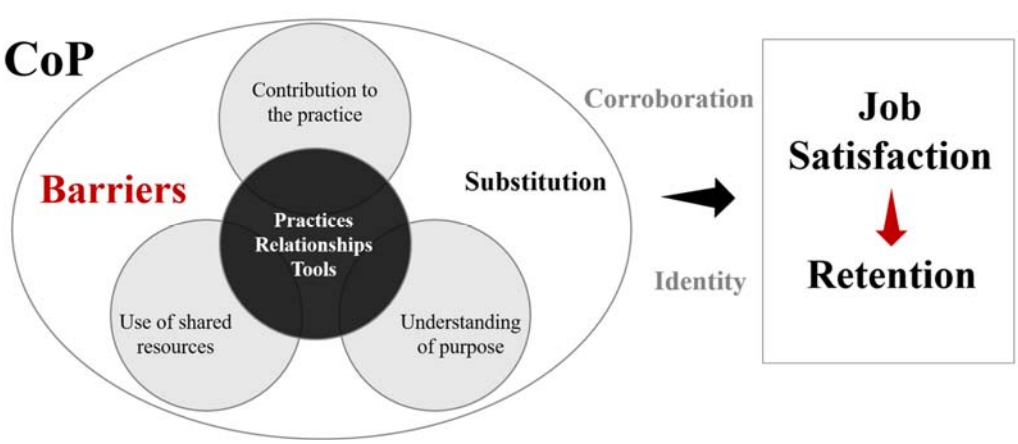

Figure 8.1. AFirm's onboarding KMS and outcomes.

Further results demonstrate that the involvement in the CoP and partaking in the T&Ps, which supported the aforementioned development, enabled a corroboration process whereby new employees could verify if the company could fulfill their work motivation factors (WMFs), in order to bring them job satisfaction. The WMFs are: Working conditions (F1), Organizational support (F2), Design efficacy and working relationships (F3), Efforts recognition and rewards (F4), Autonomy (F5) and Work-life balance (F6). The findings regarding this process imply that the violation of initial expectations and any indication that their WMFs cannot be fulfilled could lead to job dissatisfaction and subsequently encourage turnover intentions, especially in the cases in which a change, that could represent the satisfaction of the factors, looks unviable to newcomers. Of the six WMFs for millennials working in an architecture firm, the F2 was found to have the greatest influence in newcomers' job satisfaction and retention in accordance with previous research. Although other factors seem to be less influential based on the reasons that motivated new employees to stay in the company or leave, the results related to the corroboration process reflect that the fulfillment of all factors can be seen as a determinant with respect to the job satisfaction of newcomers and their intentions to remain in their job.

Additionally, the study suggests a correlation between newcomers' development as CoP members and their retention, based on the evidence of the sense of belonging (fit) and attachments (links) that employees may establish during this process, and the sacrifices of the attachments that employees who want to leave their job would have to make. This development could imply more motives for them to remain in their jobs. Therefore, while the development as CoP members seems to create reasons for newcomers to maintain their jobs, the (non)fulfillment of the WMFs could provide incentives to stay or leave.

Moreover, this research has identified barriers that could affect employees' participation in the CoP and the KT. Thus, they could have an impact in new employees' development as CoP members and the corroboration of the WMFs, and consequently in their job satisfaction and retention. These barriers relate to power; legitimation of newcomers' integration as part of the CoP's purposes; building of a network, in terms of opportunities and the characteristics of the relationships; and time and alignment of work and KM tasks.

As it could be expected, it has been revealed by this study that the onboarding experiences, tools and practices are not the only elements influencing employees' job satisfaction and retention (or voluntary turnover); aspects from employees' experiences before starting the onboarding could be determinant in the corroboration of expectations that results in job satisfaction; additionally, although the study did not deepen on the subject, there were indications of external factors, outside the company's effort, that can prompt considerations of voluntary turnover. Previous research has determined the WMFs of millennial professionals of the ACE field and this case study showed their significance for the interviewees. Also, this study found evidences that the onboarding KMS plays a role in setting the perception that newcomers develop regarding the WMFs, based on which they will corroborate their expectations and define their job satisfaction. Therefore, a combination of the knowledge about the WMFs of millennial professionals of the ACE field and the elements of the onboarding KMS that influence the corroboration process could facilitate meeting new employees' expectations in order to guarantee their job satisfaction and promote retention.

By highlighting a connection that was seldom explored between the OP and KM, and providing a novel perspective to the OP from the KM field, this study could help to realize the importance of several actions. First, to ensure that the necessary attention is paid to relevant actors and practices that were not considered in the formal onboarding. Second, to leverage on the CoP and its sharing culture to promote the substitution effect and encourage the involvement of all employees in the development process of newcomers. Third, to emphasize the identified strengths of T&Ps. Fourth, to identify and overcome the barriers that can affect the development of newcomers as CoP members.

These actions could support the enhancement of the KT, the promotion of newcomers' participation in the CoP and their development as CoP members. Also, they could aid in the alignment of newcomers' expectations and perceived reality, and the prioritization of the most relevant work motivation factors for them. As a result, these outcomes could represent an optimization the onboarding by guaranteeing the job satisfaction and retention of new millennial employees. For this reason, Section 6 offers recommendations to AFirm in line with these insights.

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Appendix I

The following (Table 9.1) is a list of some of the onboarding tools and practices found in the literature, used for the identification of the onboarding T&Ps used in AFirm's onboarding (see the pertinent methodology in Section 3.2.1). In it the T&Ps are sorted in Klein and Heuser's (2008) categorization. Klein and Heuser (2008) divide the onboarding practices depending on their purpose: those that inform, those that welcome, and those that guide the newcomers. The inform category includes all tools and practices that "provide information, materials and experiences" (ibid., p.318), and targets the aspects that the new employee must learn to get integrated. The 'inform' practices are divided in three subcategories: communication (covers the exchange of information one or bi-directional); resources (incorporates the practices that make resources known to the new employees); and training (are the planned programs that will facilitate the collection of knowledge and skills). The 'welcome' practices are the activities that recognize and appreciate that the newcomer have joined the company. These also give the new employee the opportunity to meet other employees and fulfill their emotional needs and socialize. The 'guide' practices have as purpose to supply with real and direct assistance from another employee.

Table 9.1. Onboarding tools and practices (adapted from Snell, 2006; Klein et al., 2015; Weinstock, 2015; Raytheon, 2012; Bauer, 2010).

Purpose	***Tools and practices***[15]
Inform	**Communication**
	Q&As session with senior leaders.
	Lectures.
	Meet with a senior leader.
	Time alone with manager.
	Meet HR representative.
	Key stakeholders meeting.
	Executive networking forums.
	Discussions/regular reviews of job description and expectations.
	Go over mission, vision and goals of the firm.
	Resources
	Computer-based orientation.
	Show how to use of website (where to find things).
	Show website section for newcomers.
	*Newcomer's development plan.

[15] The * indicates the resources or tools.

	*Glossary of abbreviations of the company. *List of contacts of "important people" in the firm. *Workspace ready. *Policy Manual. *Handbook of processes. *Written onboarding plan. Collaboration tools. Short-form content (e.g. job aids, quick reference guides).
	Training Observation of colleague / work shadowing On-the-job training: job performance of newcomer's job. Instructor led-courses. Training about practice and position. Online orientation program or onboarding. Tour of firm's facilities. Orientation program with other newcomers. Presentation by experts (colleagues). *Newcomers' video. Rotational assignments.
Welcome	Personalized welcome (phone call, email, or letter) from senior leader and manager. Exercises to get to know colleagues. Gathering for meeting colleagues. Newcomers welcome celebration. Social event to get to know colleagues. Social activity for newcomer's family. Announcement of newcomers joining the company (e.g. email, website, newsletter). *Welcome kit. *Items with the company name/logo.
Guide	Assign mentor or mentor network, sometimes higher level than manager. Coaching. Welcome coordinator/ point of contact. Assign buddy (colleague) / sponsor system.

Appendix II

The following are the interview guides used for the semi-structured interviews conducted in this research. The first, is the guide used for newcomers; the second, was made for the roles supporting the newcomers during the onboarding process (i.e. group leader, office manager, quality leader and senior).

Interview for newcomers

Disclaimer- anonymity

Background and role

1. Tell me about yourself.
2. Age (millennial?).
3. How long have you been working at AFirm?
4. Which is your position/role in the company?
5. How do you feel about working at AFirm?

On-boarding at AFirm

1. Do you still feel you are a new employee? Why?
   - 1.1. When do you think you stopped being a new employee? Why? (F5)
     - 1.1.1. How did you achieve that point/place (referring to what they pointed out)?
2. Can you tell us, what happened after you were hired at AFirm? (pre-boarding?)
   - 2.1. Did the company contact you in anyway before your first day of work?
     - 2.1.1. What was the purpose of it?
     - 2.1.2. How did this make you feel or what did it make you think? Why?
3. What is your opinion about how did they welcome you?
4. What did you do when you started at AFirm? Timeline For each of the activities/steps of the process:
   - 4.1. Could you describe this situation/activity /relationship (SAR), in as much detail as possible?
   - 4.2. What was the purpose of this SAR?
   - 4.3. Did you find it useful or interesting for you in any way? How/why?
   - 4.4. How did this SAR make you feel / think?
5. The following questions are about your time as a new employee. (Questions about motivators)

Mentor/Manager

- 5.1. How would you describe the relationship you had with your mentor? (F2)
  - 5.1.1. What and how was the mentor’s help/support/guide?
  - 5.1.2. How did you feel about this support? Was this useful?
  - 5.1.3. Did it contribute in how you feel about your work and the company? How?
- 5.2. How would you describe the relationship you had with your immediate manager? (F2)

5.2.1. What and how was the mentor's help/support/guide?
5.2.2. How did you feel about this support? Was this useful?
5.2.3. Did this relationship contribute in how you feel about your work and the company? How?

5.3. How would you describe the relationship you had with your quality leader? (F2)
5.3.1. What and how was the mentor's help/support/guide?
5.3.2. How did you feel about this support? Was this useful?
5.3.3. Did this relationship contribute in how you feel about your work and the company? How?

Work and feedback

5.4. When did you start getting assignments? (F5)
5.4.1. Until what point did you receive guidance about your work? (F5)
5.4.2. Did you feel you needed this until that moment or were you ready to work on your own? Why?

5.5. Was your work recognized? How? (F2 y F4)
5.5.1. What gave you that impression?
5.5.2. Did you feel your contribution was appreciated? Why? (F2)

5.6. Did you get appropriate feedback? (F2)
5.6.1. What was the feedback about?
5.6.2. From whom did you receive feedback?

5.7. Did you feel you could make mistakes in your work? Can you explain? (F4)
5.7.1. How was the company in relation to making mistake?

Work environment

5.8. How did you feel about your co-workers and the work environment? (F3)
5.8.1. What allowed you to form the impression you had on your coworkers and the work environment? (Any SAR?)

5.9. Did your design decisions fit with those of your team members? (F3)
5.9.1. Did this influence the work dynamic? How?
5.9.2. Did you feel your uniqueness was encouraged? (F3)
5.9.2.1. What made you think that? Why?

5.10. Did you feel all employees get the same treatment? (F1)
5.10.1. What gave you that impression?

Challenge and work - life

5.11. How did you feel about the work you did? (F1)
5.11.1. Did you feel it was important or interesting?
5.11.2. Did it ever get too demanding? Can you explain?

5.12. Did you spend a lot of extra hours at work during this time? Why? (F6)
5.12.1. Did you think it was going to remain the same or change?
5.12.1.1. What gave you that impression?
5.12.2. Is this recurrent or for special occasions? Example?
5.12.2.1. How do you feel about it?

6. What is the main purpose of this welcome process?

7. Did you find a conflict between what you wanted to do, with what was planned for you? Can you explain?
8. Was there something you liked or disliked in this time as a new employee?
   8.1. What and why?
   8.2. Is it related to any of the activities/tools?

<u>Future - After finishing this first 6 months/ year</u>

9. What was your impression about the company? (F2)
   9.1. What gave you that impression?
10. Did your period as a new employee contribute in how you felt about your work? How? (F1)
    10.1. What made you feel/think that way? Why?
11. What did you think about your future at AFirm? (F2)
    11.1. What made you think like this?
    11.2. Did you get follow up or evaluation about your development from your immediate manager?
    11.3. For how long did you planned to stay at the company? Why?
          11.3.1. What made you want to stay/leave?
12. Did you considered buying shares of AFirm? Why?
    12.1. What made you think that way?
13. Who are the quality leaders?

Interview for Mentors/Managers/Quality leader (MMQ)

<u>Disclaimer- anonymity</u>

<u>Background and role</u>

1. Tell me about yourself.
2. Age.
3. How long have you been working at AFirm?
4. Which is your position/role in the company?

<u>On-boarding at AFirm</u>

5. What is your role during the introduction period? Explain.
6. How many times have you been a MMQ for a new employee?
7. How did you become a MMQ?
   7.1. What motivated you to be a mentor?
8. Did you get any guidelines for being a MMQ?
   8.1. From who?
   8.2. Which were?
9. What do you want to transmit to the new employee?
   9.1. How do you do it? Timeline.
   9.2. When does your role as a mentor end?
        9.2.1. Do you ever think it needs to continue? Why?

Perceptions

10. When do you think the employee stops being a new employee?
11. How much influence has the new employee in the process?
12. How is the relationship you have with the new employee?
    - 12.1. Have you had a positive or negative experience during this process?
13. Do you think your role in this process is important? Why?
14. How does your role affect the new employee?
    - 14.1. How does your role affect their perception about the company?
    - 14.2. How does your role affect the prospect of the career development of new employees?
        - 14.2.1. What do you do to take care about it?
15. Do you think there might be something missing in the process or your role? What?