



Building people as they build work: promoting the recruitment and retention of construction professionals by facilitating agency

Hwangbo Bae¹, Denise R Simmons², and Cassandra McCall³

Abstract

Turnover rates in construction are high and must be slowed to meet the needs of an expanding and evolving industry. Therefore, it is critical to understand what makes construction professionals continue their employment in a company and persist in the field. This exploratory study examined the work values that influenced construction professionals' decisions to seek employment at a company (i.e., values influencing recruitment) with the work values they perceived as lacking within the company (i.e., values influencing retention). Qualitative analysis of open-ended survey responses from 314 construction professionals identified three salient work values for improving recruitment: (1) development, (2) autonomy, and (3) belonging; and three values for retention: (4) advancement, (5) inclusivity, and (6) flexibility. Two actions that companies can exercise to support these values were also identified: (1) communicating and demonstrating a commitment to building people as they build work such as promoting *modus operandi*, trust and practice, and personification, and (2) building an employee-centered structure for communication, empowerment, and acknowledgment that is not stifling to employees. These findings point to a larger implication for construction companies' recruitment and retention efforts to build employees as active agents in navigating their career paths at a company.

Keywords

Employee Values, Employee Agency, Recruitment/Retention, Construction, Human Resource Management

¹Department of Civil and Coastal Engineering, University of Florida at Gainesville, FL 32611, United States, hwangbo.bae@ufl.edu

²Department of Civil and Coastal Engineering, University of Florida at Gainesville, FL 3261, United States

³Department of Engineering Education, Utah State University, Logan, UT 84322, United States



INTRODUCTION

The United States (US) construction industry faces an increasing need in both the quality and quantity of future construction projects. To meet this need, the industry is predicted to add approximately 807 500 jobs between 2018 and 2028 (Dubina et al., 1915). However, this expansion is complicated by a steadily increasing employee turnover rate, which has been attributed to employees' temporary engagement with projects, relocation needs, and other reasons related to the project-oriented nature of the field (Holden and Sunindijo, 2018). In 2020, the reported turnover rate for the US construction industry was 22.2 percent, which has steadily increased since 2014 (Bureau of Labor Statistics (BLS), 2021). Such high turnover translates into concerns for the industry related to higher costs for recruiting, hiring, and training new employees and a loss of seasoned employees with valuable experience.

Approximately 20 percent of the construction workforce is designated as construction professionals – individuals who are defined as construction employees but not as tradespeople. Examples of construction professionals include construction managers, architectural and engineering managers, civil engineers, structural engineers, surveyors, and architects (Simmons et al., 2018; Smithers and Walker, 2000; U.S. Census Bureau, 2019). Similar to industry retention trends, the number of construction professional positions in the US is also projected to increase by 6–8 percent between 2018 and 2028 (BLS Occupational Outlook Handbook, 2020). However, if current industry turnover trends serve as an indication of construction workforce growth, or a lack thereof, then the recruitment and retention of new construction professionals is a critical issue for sustaining the future of the construction industry. Throughout this manuscript, the term 'employee' is used to generically refer to a construction professional.

To address concerns related to workforce growth, prior work has identified various factors that promote career satisfaction and lead to enhanced retention. Broadly, psychologists have frequently theorised and investigated a strong link between job satisfaction and turnover (Judge et al., 2017). In the construction industry, researchers

have found that employees demonstrate increased satisfaction when companies provide employees with transactional rewards (eg, salary increases, compensation) and social exchanges (eg, sense of belonging, membership) (Giri et al., 2019; Larkin et al., 2012; Oyer and Schaefer, 2010; Yankov and Kleiner, 2001). Other studies have further defined career satisfaction as one's ability to advance in their career through professional development opportunities and to maintain some sense of autonomy (Ling and Loo, 2015). Therefore, career satisfaction is not only promoted by transactional rewards such as pay, but is also heavily influenced by a social system that allows for individual autonomy in and belonging to a larger professional group. Collectively, this work highlights the complexity of employee satisfaction and the importance of understanding the interconnectedness of various factors that promote employee retention. Yet, many construction companies still heavily rely on traditional human resource management strategies, such as negotiating transactional rewards, to recruit and retain employees. These strategies often overlook social and professional factors necessary for sustainable, long-term workforce growth (Mitchell et al., 2001; Volmer and Spurk, 2011).

To advance in their career and respond to societal needs, construction professionals must be able to cultivate the necessary competencies for engaging in complex and unpredictable construction projects. Construction companies can support this need by facilitating employees' professional development (Sakhrani et al., 2017). Industry leaders have identified two Engineering Project Organisation Grand Challenges related to construction professionals' development: (1) New Project Managers and (2) Innovation and Growth Strategies (Sakhrani et al., 2017). New Project Managers should be equipped with competencies in boundary spanning, leadership for promoting learning, balancing short- and long-term performance, and self-directed technical learning, which can be cultivated through training and experience. Innovation and Growth Strategies addresses the complexity and uncertainty of projects by bringing research, policies, and practices together to focus on business models and mechanisms that enable a culture of searching



and learning, managing knowledge networks, and facilitating agile collaboration. From this perspective, the development of a construction professional requires integration of work values, skills, and competencies (Holt, 2014; Laat and Schreurs, 2013, Boud and Hager, 2012).

To improve programmes aimed at recruiting and retaining talented construction professionals, companies need to understand work values shaped by personal, professional, and social factors. Values are defined as “beliefs that are experienced by the individual as standards that guide how he or she should function” (Brown, 2002). To gain a contextualised understanding of values perceived as important by the construction professionals, we operationalized work values as beliefs and principles shaped by personal, professional, and social experiences that influence individuals' workplace standards and employment decisions. This study contributes to the growing body of knowledge in facilitating work values of construction professionals. The aim of the present study is to promote industry recruitment and retention efforts by identifying the construction professionals' work values and how construction companies can support them. The findings from this study inform organisational practices aimed at helping companies decrease turnover and expand the profession. By exploring current employee values and the ways companies address, or fail to address, those values, this study provides practical implications for companies to help employees find meanings of their work and become agents of their career development.

LITERATURE REVIEW

A significant amount of work has been dedicated to identifying employee needs and values across disciplines (Bluestein, 2006; Judy and Amico, 1997). Bluestein (2006) investigated the work values of employees that influenced their career paths and decisions to remain at or leave a company. He found that an individual's career is an essential part of their personal life that could be categorised into three core functions: (1) working as a means for survival and power, (2) working as a means for social connection, and (3) working

as a means of self-determination. In Bluestein's study, employees perceived work as a way to gain basic needs for life, build relationships with others, and develop self-confidence. These findings pointed to the strong relationship between career and personal lives; a career extends the boundary from professional to personal self that allows an employee to fulfil their personal goals and values (Bluestein, 2006).

A number of studies have established that organisational and individual work values are inherently and reciprocally linked. When examining dimensions of professional identity, Ashforth et al. (2008) found individuals construct their professional selves based on personal attributes, social membership, and work roles. Similarly, Alvesson and Willmott (2002) found employees often embraced an organisation's identity upon becoming a part of the organisation, thereby implicitly representing the organisation through the self. That is, individuals developed professional selves by integrating company and personal values while employed at a particular company.

From this perspective, employee motivation for career advancement can also be positioned as a personal pursuit of self-esteem (Super, 1980) and self-efficacy (Bell and Staw, 1989). Moreover, employee behaviour regarding career management highlights “the process of implementing a decision to enter an occupation, adjusting effectively [to the work environment], establishing oneself and progressing within that occupation” (King, 2004, p. 116). In examining these behaviours, King (2004) identified that employees' self-esteem and self-efficacy were two causal elements of employee attitudes toward self-directing and navigating career advancement. They also found that maintaining control over one's work was another contributing factor to career-self management. These studies allude to the need for the development of organisational support structures that consider employee career advancement goals in tandem with personal and professional factors.

Individuals' work values are important factors for human resource managers to consider for the retention and recruitment of construction professionals. Prior work has shown this is true not only for intrapersonal values but also interpersonal



values where an individual is interacting with the company and its culture. Studies have shown that promoting an organisational culture that integrates employee values helps employees feel supported in the workplace (Ellett et al., 2007; Inabinett and Ballaro, 2014). Other studies have found that if employees perceive their values as being aligned with organisational values, they are more likely to stay at the current company (Bragg and Bonner, 2014; Chatman, 1989). Employees' perceptions of value alignment or value congruence with the company had a strong and positive relationship with employee retention.

To support this value congruence, prior studies have emphasised the importance of professional development (PD) and suggested companies offer opportunities that allow employees to learn knowledge, transfer knowledge to practice, and continuously participate in learning activities for personal growth (Laat and Schreurs, 2013, Boud and Hager, 2012). These studies define PD as continuous learning activities through individual and interactive development opportunities in the workplace where employees acquire knowledge and skills, broaden their own abilities to efficiently complete tasks, and work towards the goal of becoming an expert in the field. Further, research examining prior shifts in the construction industry has provided insights and lessons learnt that can be used to address recruitment and retention issues through PD. For example, researchers have noted employees' intrinsic fulfilment of their PD as a significant predictor of employee retention rather than monetary rewards such as salary (Milman and Ricci, 2004). Based on interviews with managers from commercial construction companies, Danforth et al. (2017) identified employee development focused on improving employees' skills as necessary for innovation and contingency. Further, they suggested training not only supported employees' PD but also improved morale and company loyalty by promoting higher involvement, affective investment, and commitment. Offering PD, such as training programmes, helped sustain the company by professionally satisfying employees during an economic downturn, which minimised turnover.

While studies have emphasised the importance of intrapersonal values as related to skills and

competency development (Holt, 2014; Laat and Schreurs, 2013, Boud and Hager, 2012), other research has shown interpersonal values are also important considerations as an individual interacts with the company and its culture. Mitchell et al. (2001) and Taris and Kompier (2004) reported that employees use personal and social factors when deciding to remain at a company, prompting human resource managers to address not only employees' belongingness to the company but also social connections, relationships, and interactions with their coworkers in the organisation. Mitchell et al. (2001) found understanding and acknowledging interpersonal values can help human resource managers develop more effective retention and recruitment strategies.

Management can provide a variety of opportunities for employees to fulfil their professional values. Companies can provide sufficient support and resources to allow employees to advance in their field (Lent and Brown, 2006). For example, companies can sponsor training and promotion opportunities to support employee PD to help increase employee performance (Cheung et al., 2019; Schmid and Adams, 2008; Sirota et al., 2005). Although studies have highlighted employees' values and the company's role in fostering PD, only a few studies have investigated systemic ways of supporting professional values (Rubenstein et al., 2018). Prior studies have investigated employees' career choices influenced by job characteristics (Hackman and Lawler, 1971; Judge et al., 2000; Lawler and Hall, 1970; Taris and Kompier, 2004); however, there is a lack of research on how companies can support employee values to attract and retain a talented workforce.

Few studies have examined how construction professionals' work values, including inter- and intrapersonal and professional values, influence how those values are reflected within or fulfilled by employment at a company. One exception is a set of studies by who applied Brown's Value-Based Theory (Brown, 2002) to examine the values that informed the recruitment and retention of construction professionals at their places of employment. They found that many values expressed by participants could not be distinctly categorised as personal, professional, or social; rather, participants sought recruitment

and anticipated retention at companies based on values that combined personal, professional, and social aspects of their lives. Paarlberg and Perry (2007) reported values are not always congruent between an employee and the organisation. While an organisation may espouse values to address employee needs and desires, employees may practice different values associated with their cultural and social lives. These studies highlight an integrated relationship between employee and company and underscore the need for future research to identify ways in which companies can support these values. Therefore, the purpose of this study was to gain a greater understanding of the work values that promote recruitment and retention among construction professionals and the ways companies can align those values. Specifically, the guiding research questions for this study were:

1. What perceived work values influence the recruitment and retention of an employee at a construction company?
2. How can construction companies support and facilitate these work values to promote employee recruitment and retention?

Theoretical Framework

To answer these questions, this study used a theoretical framework developed as a lens to explore construction professionals' work values. This framework, adapted from Brown (2002), contextualises broader concepts of values in the construction industry. This framework categorised employee values as professional work values, professional cultural values, and professional work-life balance values. Amongst the three value categories, professional work values are significant in that they provide a set of vocational benchmarks that help individuals determine the desired features of work. For example, a company that markets itself as a leader in the global construction industry with projects located across several countries is more likely to recruit and retain an individual who can easily relocate, enjoys travel, and desires exposure to other cultures and countries. Therefore, the values inherently communicated by a company are interpreted by individuals and shape their recruitment and retention within that particular company. As shown in Figure 1, identified professional work values as an individual's inter- and intra-personal values they believe should be satisfied through a work role at a professional organisation. Examples of professional work

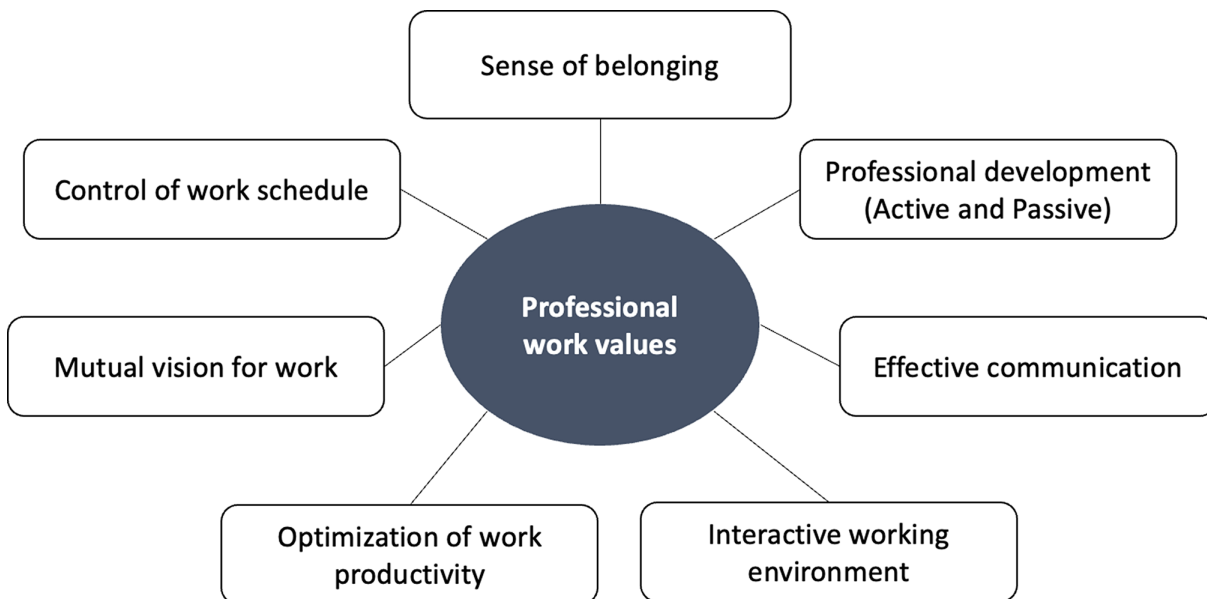


Figure 1 List of professional work values redeveloped.



values include managing a flexible work schedule, engaging in various professional development opportunities, feeling a sense of belonging with coworkers, and utilising effective communication channels. The current study builds on this work by focusing on the professional work values associated with construction professionals' decisions to seek (ie, recruitment) and maintain employment (ie, retention) at a particular company as well as the strategies that companies can utilise in this dynamic.

Methods

To address the research questions, written responses to open-ended survey questions were interpreted by examining participants' perceived alignment between their values and those of the company. Participants' responses were qualitatively analysed by classifying values that led to their recruitment (ie, what drew the individual to their current company) and those that will likely lead to retention if addressed by the company (ie, what would the individual like to see changed within their current company). A detailed description of data collection and analysis is provided in the following sections.

Participant Recruitment

Surveys were electronically distributed to the members of an industry advisory board for a construction engineering programme at a public Mid-Atlantic university. This board included construction professionals from over 45 companies of various sizes and geographic locations. A summary of participating companies is shown in Table 1. To protect the identities of the participating companies and survey respondents, four geographic descriptors were used to indicate the area in which each company operates. Advisory board members were asked to distribute the survey to others working in their companies. The only criterion for study participation was that the respondent needed to be currently employed as a construction professional (eg, senior managers, project engineers, project managers, superintendents, presidents, and CEOs, etc.). This process allowed a top-down distribution

Table 1 Summary of participating company's geographic descriptor and number of respondents

Geographic descriptor	Number of companies	Number of respondents
Global	4	82
National	11	24
Regional	21	138
Local	11	25
(No answer)	—	45

of the survey to construction professionals at participating companies.

Data Collection

A survey was distributed in May-July 2016 and 314 construction professionals provided their responses. Their current job titles varied including Senior Managers (24%), Project Engineers (22%), Project Managers (22%), Superintendents (20%), Estimators (10%), and Presidents/CEOs (3%). The sample primarily contained men (89%), which mirrors the gender disparity in the construction industry (Bureau of Labor Statistics (BLS), 2020). The age of participants ranged from 18 to 76, and the majority of participants were 35–54 years old.

Survey responses from two open-ended questions were analysed. While interviews, focus groups, and observations are typically used in qualitative studies, researchers have also utilised open-ended survey responses to gather perceptions of phenomena from large groups of individuals (see Anita et al., 2015; Ryan et al., 2016). The first question (Q1), "What drew you to seek employment at your current company?" was used to identify key values that attracted the individual to a particular company, which resulted in implications for recruitment strategies. The second question (Q2), "What one thing would you change about your current company?" was designed to pinpoint values that participants felt their company is currently lacking and resulted in implications for retention strategies. Of the total participants, 192 (61%) and 224 (71%) provided responses to Q1 and Q2, respectively.



Data Analysis

We analysed participant responses to the open-ended survey questions using a phenomenological analytic approach. This approach allowed us to explore common perceptions and experiences of individuals in a particular group (Patton, 1990). This approach was also particularly useful for this study because it is often used to explore existing phenomena where only limited work is available. In the present study, a phenomenological analytic approach was used to gain a holistic understanding of the professional work values associated with a phenomenon of employee value alignment. In this study, employee value alignment is defined as an individual's perceived alignment between their own values and those they identify in a company. Through interrupting survey responses, we were able to examine employee value alignment at two career stages: (1) at the start of one's employment to identify what values attracted the individual to seek employment at the company (ie, to be recruited), and (2) after being hired to identify what values may influence the individual to continue employment at that company (ie, to remain).

Data analysis was conducted in three steps: (1) screening responses associated with professional work values, (2) identifying codes by using the theoretical framework, and (3) conducting an abstracted analysis. Open-ended responses were first examined using deductive coding analysis (Charmaz, 2014; Thomas, 2006) to capture values across participant responses for each question. Using theoretical framework, the first author evaluated the participants' responses and classified professional work values.

Next, the categorised responses were deductively labelled with codes to capture the meaning of their responses. For example, a respondent stated that the employee was attracted to the current company because of its emphasis on a family-like work environment. To capture this statement, a code called, "family-like environment," was created and assigned to that response. The labelling process helped the researchers to explore participants' descriptions in-depth and identify salient codes during the analysis process. In cases when a response did not fit into any of the values suggested by the theoretical framework, it

was inductively analysed and labelled with a new code. The same approach was taken for values related to retention. The first author checked the codes and theoretical categorizations with the other two authors to determine whether the codes and categories accurately captured the meaning communicated in each response. This process also helped the authors identify common and salient values, achieve data saturation until no new codes emerged, and minimise researcher bias in interpreting the qualitative data.

Lastly, an abstracted analysis (Oliver, 2012) was conducted to explore the relationships between the values and the actions that a company can exercise to align these values. Abstracted analysis is an interpretive approach that helps identify prevalent patterns and themes across data to explain a phenomenon (Charmaz, 2008; Johnson et al., 2017). The company's actions could be identified by examining and aggregating the values that construction professionals described as important for recruitment (Q1) and retention (Q2) of an employee at a company. For example, through the use of iterative comparison, this abstracted analysis simultaneously considered a segment's code name, theoretical category, and its associated survey prompt to glean a broader, more abstract meaning from the data. This analysis revealed three values that linked employee recruitment and the other three values with retention with a larger theme of employees' desire for building agency (addressing RQ1). The identified values were then used as a guide to identifying how companies can support these values (addressing RQ2). These results are further discussed in the Findings section.

To ensure research credibility and trustworthiness throughout the qualitative coding process, peer debriefing was utilised (Lincoln and Guba, 1986). Peer debriefing refers to "the review of the data and research process by someone who is familiar with the research or the phenomenon being explored" (Creswell and Miller, 2000). The three-person research team included two members with extensive qualitative research experience with one of these members having more than ten years of experience in the construction industry. The research team met periodically to discuss and clarify the meaning of participants' responses and the emerging codes and



categories. In instances where the research team did not agree on codes, they reexamined participants' responses and discussed the essence of their responses until consensus was reached.

Methodological Limitations

The first methodological limitation relates to the design of the data collection instrument. The first survey question analysed for this study, Q1, required that respondents reflect on the prior job search process from when they were hired at their current company. As a result, their responses to Q1 may have been retroactively influenced by benefits received after being hired. By nature of the present study design, the research team was unable to capture the values that influenced construction professionals' decisions to pursue a career at a particular company in real-time. Future work may address this limitation by collecting data from recently employed individuals or conducting a longitudinal study that follows employees throughout the job search process. Another limitation related to the data collection procedures is the nature of the qualitative questions used in this study. The survey questions were used to indirectly identify construction professionals' work values (ie, asking about what drew employees to their current companies and what they would change). Therefore, a future study may confirm if these values are prevalent using more transparent data collection approaches that explicitly ask about participants' employee values either through surveys or interviews.

The last methodological limitation of this study is the demographic nature of respondents who participated in this survey. The majority of respondents in this study were male, which accurately reflects the gender demographics of construction professionals. However, the perspectives of female construction professionals were not widely represented. As a result, the values and the prevalence of agency (as discussed in the Findings section) identified in this study may differ based on gender.

FINDINGS

The findings of this study relate to both individual employees and construction companies, broadly.

For employees, the survey response analysis revealed three work values that influenced the recruitment of construction professionals, which are development, autonomy, and belonging. Also, the analysis showed that advancement, inclusivity, and flexibility influenced the retention of current employees. Employee agency, which was defined as an individual's desire to maintain control in making decisions that guide and shape one's career, emerged as an unanticipated yet overarching finding from this work. This finding underscores the role of companies in fostering and contributing to the workforce necessary for meeting expanding demands of industry. A significant implication of this work is that construction companies should implement strategies to support and facilitate employee agency because employees are in search of, and have a desire for, a work environment in which they are empowered to navigate their careers.

For companies, the analysis revealed two actions through which companies can address these work values. A construction company can improve the recruitment of future employees by (1) communicating and demonstrating a commitment to building people as they build work such as promoting *modus operandi*, trust and practice, and personification. Moreover, a construction company can improve the retention of current employees by (2) building an employee-centred structure for communication, empowerment, and acknowledgement that is not stifling to employees. Figure 2 presents a conceptual model relating the identified employee work values to strategies that companies can utilise to effectively recruit and retain employees. Employee values and company's actions are further described in the following sections.

Employee Values That Lead to the Recruitment at a Company

Development

The first employee work value that influences the recruitment of an employee at a construction company is *development*. Development is a work value that prioritises opportunities that promote professional growth in the field. In participants' responses, construction professionals expressed the

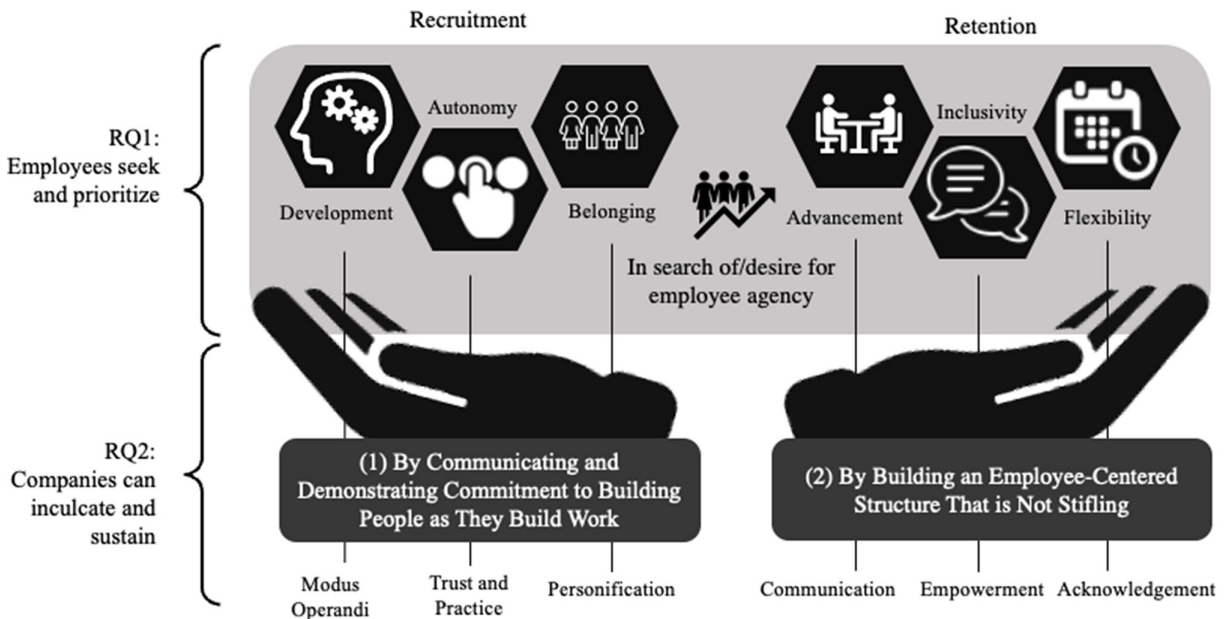


Figure 2 Conceptual model linking employee values to recruitment and retention at a company through building employee agency.

importance of gaining professional development (PD) opportunities when considering a place of employment and chose to work at their current companies because they saw a potential for growth. For example, when describing what attracted him to his current company, a male project manager with 13 years of experience stated: “I was drawn to the emphasis placed on ongoing learning and development and on community service and involvement.” Also, a female project engineer with 4 years of experience sought employment at her current company because:

I wasn't exactly sure what I wanted to do [after] I graduated and [the current company] gave me opportunities to shape my career and really [helped me] figure out what I like to do and what I am good at.

Although she expressed uncertainty about her interests and career path, she was drawn by multiple company-sponsored opportunities through which she could identify her strengths in performing particular work (ie, project engineering). These responses indicate that construction professionals are attracted to companies that provide diverse

opportunities for development that foster work experience.

Autonomy

The second employee work value identified by respondents was autonomy. Autonomy in this study is defined as having the freedom to choose a project type and extending the range of assigned job duties. Although ‘freedom’ can mean different things, in this context, it means that employees are given a space to think and act independently by taking ownership of their projects and subordinating tasks. Unlike being drawn by development opportunities, which highlight a general desire for learning and career advancement, this value captures construction professionals’ specific interests and autonomous engagement in working on certain types of projects, such as heavy civil or commercial construction projects. Participants described their preference for a particular type of project and their attraction to companies that provided such work opportunities. For example, a male estimator with 15 years of experience was drawn to “the type of projects [his company] pursue[s] and build[s].” A male project manager with 16 years of experience also described being attracted to his



company because of “the fact that [his company] is a self-performing, heavy civil contractor in the mid-Atlantic region.” Furthermore, construction professionals noted the importance of expanding their autonomy at work. For example, a male project manager with 40 years of experience was attracted to his current company because he “wanted to see what [he] could accomplish with a large, publicly held company.” Another male estimator with 23 years of experience also was drawn to his current company because he saw a potential for gaining an “opportunity to ‘step-up’ and work on large-scale heavy-highway projects” at the current company. These responses highlight the critical role that autonomy plays when experienced construction professionals are choosing to pursue employment or being recruited to a new company.

Belonging

The third work value that construction professionals prioritised was gaining a sense of *belonging*, which is defined as feeling a sense of connectedness at the company in which one can self-identify as a member of the community. For example, a male business systems manager with 13 years of experience was attracted to his current company because there were: “... many ways that made [the current company] special. It was the sense of family, the core set of values that govern how we work together, how we do business, and how we work with others.” The sense of family was described as important by construction professionals because they pursued working companies that “treat employees [like] family,” a male project manager with 10 years of experience said. While participants often described key influencers as people they had previous connections to and relationships with (eg, family members, fellow alumni, friends, internship recruiters at university career fairs, etc.), they also highlighted how quickly new acquaintances could claim this role by exhibiting values that resonated with them. A male project manager with 9 years of experience responded that: “the people I interviewed with were honest and upfront, [and demonstrated the] values that are similar to mine.” This finding suggests individual socialisation through which they build a sense of belonging,

family, and membership is a crucial experience that guides their decision to work at a company.

Employee Values That Lead to Retention at a Company

Advancement

Employee value for development was also expressed as a form of *advancement* as construction professionals stayed at a company for several years and wanted to build expertise in their particular interest areas. Advancement was often discussed by participants as professional development opportunities that would ultimately lead to retention. A male estimator with 20 years of work experience expressed his desire to have “more opportunities for career development and advancement on the estimating side of the house.” Similarly, a male superintendent with five years of experience wanted to receive “more tech training” as a means to gain new skills and knowledge that would advance his career. These responses indicate that while professional development opportunities are often utilised to attract new employees at a particular company, they are also vital for ensuring continued advancement, learning, and retention. . Once individual and professional growth becomes stagnant, employees are likely to seek other, more fulfilling job opportunities.

Inclusivity

The second work value described as significant for retention at a company was *inclusivity*. Inclusivity highlights construction professionals’ desire for their company to listen to their needs and concerns. Unlike *belonging*, which was identified as important for recruitment, *inclusivity* was observed to influence the retention of an employee by highlighting the significance of internal communication practices. This observation seems reasonable because new employees typically do not experience the ins and outs of internal communication practices until after they have been hired. However, this observation also aligns with *belonging* in that it focuses on gaining a more holistic understanding of one’s membership within the company and the role of the company in facilitating the fulfilment of one’s professional



needs for efficient job completion and effective networking.

In their responses, participants described communication as a necessary tool and skill for building a positive work relationship and gaining access and support for work-related ideas and concerns. For example, a male project manager with 26 years of industry experience indicated a desire to change the type of conversations he had with his supervisor, stating, “I would like to change [how] I would [. . .] speak to my supervisor and discuss my idea[s] with him.” A male senior manager with 42 years of experience expressed a similar sentiment in his response: “getting upper management to listen to my concerns at times”. He further went on to describe a need for management to also provide employees with direct feedback on their experiences, challenges, and strategies for overcoming them.

In the same vein, construction professionals emphasised that having effective communication influenced their decision to remain at a company. Effective communication encourages and promotes employees’ participation in decision-making processes with management and other branches of the organisation. A male estimator with three years of experience wanted his current company to build a structure to allow employees to be active agents in the company’s decision-making process. He stated:

I think there should be more transparency between management and the estimators/project managers. Currently, everything is very secretive. This is supposed to be an employee-owned company but the employees are kept in the dark on decisions the company is making.

Furthermore, other respondents tied this value back to the *development* value and emphasised that effective communication is crucial for fostering a learning workplace culture. For example, a male project engineer with six years of experience stated: “I would like to have a post job meeting with the estimating team and operations team.” In this response, a desire for having a meeting with other branches signals the importance of getting a space for construction professionals to discuss their

concerns and needs, as well as to reflect, discuss, and revise operations and revisit best practices.

Flexibility

The last employee work value for retention at a company was having *flexibility*. Flexibility captured respondents’ desire to control their workload and manage work schedules. For example, a male senior manager with 31 years of experience commented on the unrealistic and client-driven nature of project schedules, stating, “The type of projects we currently pursue tend to have unrealistic schedules dictated by the client which leads to poor work-life balance.” A male superintendent with 27 years of work experience similarly described how “[the company demands employees] work on the excessive hours that seem to come up during the busy season.” While these participants identified unrealistic schedules and excessive workloads as a harmful workplace culture needing to be addressed at the company level, other respondents relegated this as a norm in the industry. A male project manager with 16 years of experience stated, “The number of hours that need to be worked are higher than I would like at times. This is common to the industry in general.” These responses indicate that the excessive number of working hours negatively impacted professionals’ work-life balance and underscore the importance of moderating workload to reduce burnout, support mental health, and promote retention in the construction industry (Enshassi et al., 2016; Rouhanizadeh and Kermanshachi, 2021).

The prevalence of agency in employee values

Looking across the six identified employee values, *agency* emerged as a unifying theme. This study defines employee agency as employees’ perceived ability to guide and shape their careers within a company. All of the six identified values (ie, development, autonomy, belonging, advancement, inclusivity, and flexibility) relate to employee agency.

Construction professionals sought employment at companies in which they perceived opportunities and abilities to navigate career options/interests through company-sponsored development opportunities, to



cultivate autonomy to work on projects and jobs they liked, and to gain a sense of belonging as a member of the company. Overall, these findings highlight the importance of perceived agency when construction professionals are choosing a workplace supportive of their values.

Furthermore, respondents expressed a desire to remain at a company where they felt empowered to steer their careers. For example, participants identified areas for improvement and sought advanced development opportunities at the company. Through these opportunities, they desired to gain specific knowledge and skills in specific areas (eg, estimating). Participants also desired their companies to facilitate efficient and effective internal communication channels through which employees feel like they have a voice at the company and that their voice is valued. Moreover, having flexibility in taking control over work schedules was expressed by participants as a form of empowerment that facilitated increased productivity and more manageable work-life balance.

Overall, employee agency was a unifying theme that encapsulated the six values concerning either retention or recruitment. Although the values identified as important for retention were different from values associated with recruitment, it is a reasonable variance due to the experiential and knowledge differences between someone who is speculating about working at a company versus an employee who has been there for some time. However, employee agency indicates a common desire across both prospective and current employees to be agentic and empowered to shape their career paths. With the understanding that construction professionals want to exercise agency in the workplace, the researchers proceeded to identify how companies can address these values, which may then inform recruitment and retention practices.

Recruiting Construction Professionals by Communicating and Demonstrating the Commitment to Build People as They Build Work

In addressing the second research question on how companies can address employee work values for recruitment, the researchers identified that respondents chose to pursue careers at companies that exhibited transparent and frequent

communication practices and demonstrated a commitment to building employees as they build work. This theme can be described in three ways: by communicating the company's (1) *modus operandi*, (2) culture of trust and practice, and (3) personification of their employees. For example, respondents indicated that they were attracted to companies that supported their development of professional competencies; a male project engineer with two years of experience wanted his company to "[provide] initial job training for entry-level employees." Similarly, a male estimator with three years of experience stated that "[my current company] presented me with an opportunity to travel all over the country and see a variety of projects." Participants' responses positioned their companies as a facilitator who helps employees identify, acquire, and develop competencies by offering a variety of training and other educational activities. These are examples of *modus operandi*, or a functioning of the organisation/company, that attracted employees through career development mechanisms.

Next, communicating a company's culture with an emphasis on trust and practice was also observed as an attractive characteristic among potential employees. Company's culture was communicated in various forms. Descriptions of company culture were often intertwined with descriptions of company reputation, particularly as it related to certain project types and interactions with the current employees. For example, some respondents considered company accomplishment as evidence of its trustworthiness, which influenced why they wanted to work there. A male project executive with 24 years of experience stated: "[my current company] is an exceptional general contractor that [has] a national reputation [allowing] the company to win jobs..." This response suggests that the reputation of the company attracts people because of its competitiveness in the national market. Such reputations broadly communicate that by associating with (ie, being employed at) a successful company, that individual will also be successful in the industry.

However, company reputation did not always guide potential employees' perceptions of its culture. By using people as reference points, respondents were able to better understand the



workplace culture which attracted them to the company. This finding suggests that building positive work relationships with current employees can lead them to take a voluntary role of an informal recruiter outside the company, which may also be as influential for building a national or global reputation of the company. Respondents indicated that they were able to understand the workplace culture by talking with current employees. They referenced family members, friends, and alumni who have worked, or are currently working, for the company to examine the workplace culture. For example, a male project manager with four years of experience stated that “[he] heard great things about how [the current company] treat[s] their employees with a family feel in mind.” Another male estimator with 25 years of experience shared that, “I heard it was a good company and had a relative working here.” Furthermore, allowing people to interact with current employees at a company can be a way to communicate the culture of trust and practice. For example, a male business systems manager with 13 years of experience was drawn to his current company because of the “empowerment [that the executive staff] g[a]ve all employees to make decisions at all levels.” A female project engineer with five years of experience also stated that she “felt a good energy and atmosphere during the interview.” These respondents reflected on and appreciated the interaction they had with the current employees who emanated a positive impression about the company. These responses show that the interaction with current employees can be a window to observe the workplace culture. Allowing people to interact with current employees may be another effective strategy to demonstrate how the company is building its current employees, thus improving recruitment.

In addition to communicating a culture of trust and practice, respondents indicated that companies should demonstrate a commitment to promoting employees’ sense of belonging. A sense of belonging captures the desire for an individual to identify oneself as part of the larger group (ie, company) and to be socially involved in interpersonal work relationships. *Personification* highlights that companies should establish a culture where the newcomers perceive that the company treats their employees as important

contributors to building and reinforcing the community of practice. A male project engineer with two years of experience was attracted to the current company because he was drawn to the company’s commitment to employees. He stated: “[t]he level of commitment and dedication [the current company] provided to their employees and the commitment to teamwork exhibited by all those employed [at] the company” gave him a sense of welcoming culture and supportive work environment. By understanding how a company treats employees and that they are valued as members of the organisation and not replaceable assets, a sense of belonging can influence employees’ decisions to work at that company.

Retaining Construction Professionals by Building an Employee-Centered Structure That Is Not Stifling

Lastly, data analysis showed that the retention of employees can be improved by building an employee-centred structure that is not stifling. This theme includes a negative connotation to capture participants’ desire to change within the current company (Q2). This theme was informed by three codes that were identified as those currently lacking but essential structures that may improve the retention of construction professionals. These codes are communication, empowerment, and acknowledgement, and will be discussed in the following sections.

First, building an effective communication channel is key to retaining construction professionals. For example, a male senior manager with 25 years of experience emphasised listening and addressing employee concerns stating: “[it is important that the company “continue[s] to make the necessary adjustments [by] listen[ing] to employees to ensure that [the company is] meeting their needs and ensuring that they understand [the company’s] goals.” This response suggests that communication should be key to building a structure that facilitates the understanding of the goals and needs of each party.

Companies should be attentive to revisit, examine, and revise communication channels. As an example, survey responses show that participants are agentic and able to identify needs for improvement which



vary by each employee. A male project manager with 25 years of experience wanted to obtain a detailed understanding of his tasks through training. He stated, “although training is available and adequate, more detailed training in some areas” was desired. Also, a male project engineer with two years of experience wanted to obtain the necessary resources to complete assigned tasks and projects. He stated that he wanted his company “to ensure everyone has the tools needed to complete [the] job at hand.” The findings from these excerpts are twofold: as construction professionals become more experienced and knowledgeable about the work, their agency to exercise discretion and to solve problems at work becomes stronger. More so, these responses show that each employee perceives different needs at work and that a lack of communication at the company can influence them to seek employment elsewhere. This finding illuminates the importance of preserving an avenue for employees to exercise agency and communicate their needs with the company.

Second, empowerment at work puts employees at the centre of the organisation and allows them to guide their development and lead change. As previously discussed, respondents wanted to feel included in the organisation. A sense of inclusivity can be fostered by providing opportunities for employees to participate in decision-making processes and sharing concerns with coworkers and/or superiors. These responses show that effective communication channels are key to retaining employees, such as providing space for employees to share their concerns freely and safely, and must be cultivated within the company. A consequence of chilly workplace culture was exemplified in a response by a male project manager with 12 years of experience who stated: “there [was] a large unknown associated with an opportunity [which] raise[d] concerns to people [but the company’s culture] prevent[ed] them from raising their hand for opportunities.” His response demonstrates that a chilly company culture may lead employees to be reluctant about raising their voices about concerns or advancement. By cultivating an empowering culture, adjustments in the workplace can be led by the employees.

Third, another way that a company can create an empowering culture is by fostering a family-like environment. A female assistant project manager with 19 years of work experience, appeared

to value a family-like work environment and lamented a cultural move away from it. She stated, “We were a close-knit family, and this seems to be subsiding somewhat. This is truly a shame for a true team to work. No matter what sport or business everyone needs to have the other’s back.” A sense of inclusivity for and among employees lies at the intersection of work and personal life. One not only works at a company, but is more meaningfully connected with the broader organisational cultures, outcomes, and objectives related to that work. Creating environments and activities that cultivate a sense of inclusivity through positive work relationships and a family-like culture can promote retention by helping bridge and sometimes integrate different aspects of one’s life.

Companies can further promote employees’ sense of inclusivity by giving credit and acknowledging hard work. Respondents valued a work environment that acknowledged their contributions at all levels, thus making every employee feel like a valued part of the company. One male project manager with 20 years of experience noted that his current company did not sufficiently recognise employees’ hard work, stating, “I believe they [the company] need[s] to have additional avenues to recognise their lower-level employees more.” Another male superintendent with 1.5 years of experience wanted his company to appreciate his and others’ hard work stating, “[I wish that my company] acknowledges the employees in the field and why we are successful.” These responses augment *personification* as a consistently desired and crucial mechanism for recruitment and retention. Construction professionals want their companies to treat them as valued members of the organisation and not simply as assets or resources for achieving organisational goals.

DISCUSSION

This study identified work values that construction professionals perceived as important for their careers at a specific company. By examining these perceptions, construction professionals’ expectations of their companies in supporting these values were also identified. Using a ‘bottom-up’ approach, this study utilised employee (ie,



construction professionals) perspectives to inform the underlying support structures that companies can create to promote recruitment and retention in construction.

Throughout the study, employees described values that inherently empowered them to have more control over day-to-day knowledge application, work and home life balance, and overall career paths. In general, agency is typically defined as the capacity for an individual to make an independent choice that shapes cultural and personal aspects of one's life (Emirbayer and Mische, 1998). Previous workplace studies have explored the concept of an agency concerning employees' attitudes toward self-sufficiently progressing through their careers (Hall and Moss, 1998; Volmer and Spurk, 2011) as well as the impacts of autonomy on employee career satisfaction (Clark, 2001; Hackman and Lawler, 1971; Thompson and Prottas, 2006). Together, these studies create a larger narrative supported by the present study: that construction professionals tend to be attracted to and retained by companies where their work is meaningful and engaging, their voice is heard and valued, and their career development is continuously supported. In this sense, agency, and related concepts such as autonomy, helps individuals construct the meaning of their work. Employees are not just passive recipients of organisational support (ie, exposure and access to resources and equipment) but are active agents seeking personal and professional growth (Emirbayer and Mische, 1998). However, despite prior work in this area, agency has yet to be a focal concept when considering ways to better recruit and retain employees within construction companies.

IMPLICATIONS

The findings of this study make several implications for human resource managers at construction companies to effectively promote retention and recruitment. First, the present study contrasts prior work focused on incentivising performance (Larkin et al., 2012; Oyer and Schaefer, 2010) and aligns with current work underscoring the importance of interpersonal relationships and opportunities

for professional development (Bigelow et al., 2021; Welfare et al., 2021). However, unlike prior work, this study positions employee agency as a significant contributor to promoting the recruitment and retention of construction professionals across companies. This study calls attention to a need for construction companies to intentionally design and provide opportunities for employees to build their agency in ways that also support their values. With an emphasis on employee agency, this study makes implications for construction companies to utilise different strategies to recruit and retain their employees.

Based on the findings identified as important for recruitment, the authors recommend that companies provide and market flexible options for future employees to expand their breadth and depth of knowledge and skills as well as the interpersonal relationships necessary for upward career mobility. These interpersonal relationships can be established as early as the applicants meet with recruiters during the interview or career fair in college and were deemed as crucial in attracting employees (Avery and McKAY, 2006; Connerley and Rynes, 1997). This finding suggests that employees' interactions with recruiters should centre on understanding employees' values and how the company can address them, thus promoting a space for their agency.

The authors also recommend that companies build a diverse community for recruitment. Our findings showed that personal relationships with current employees (eg, family members, alumni, friends, etc.) were identified as influential figures when construction professionals were seeking employment and examining the company's culture. Such interactions are essential for employees to gain a sense of belonging and shape their decision to work at a company. To recruit talented individuals, it may be helpful that a recruiter introduces an individual to current employees who share similar backgrounds and render a belief that their career can be successful at the company. This finding suggests that promoting diversity in the workplace can help individuals gain a sense of belonging and improve recruitment. Prior studies show that recruitment activities often provided less favourable signals to underrepresented minority populations because



the applicants perceived that a recruiter shares different backgrounds (Freeman, 2003; Goldberg, 2003). Therefore, recruitment activity can be effective if a recruiter shares similar backgrounds and communicates a sense of community in which an individual can relate and belong. We hope that this implication bolsters the call for improving diversity in the construction industry.

To improve retention at a company, the authors encourage executive members of companies to take time to intentionally listen to their employees to identify new strategies for creating opportunities for personal and professional development. Moreover, employers need to be attentive toward the signs and signals of burnout, fatigue, and other factors that may ultimately decrease job satisfaction and increase attrition. The data indicated construction professionals value productive communication with their supervisors and colleagues. By having a communication channel (eg, mentorship) to talk about needs and concerns related to their tasks, employees can feel better guided by management and acknowledged for their hard work in the company. Therefore, creating a culture of mutual respect and collaboration where individual voices and contributions are valued by the management may help the company to better retain employees.

For employees, this study encourages individual reflection to identify what is most important in relation to their lifestyle, family situation, and desired career trajectory. Moreover, the authors of this work encourage employees to consider ways that a company may facilitate desired development opportunities and to communicate those ideas. Providing these as optional opportunities underscores the role of agency by allowing employees to determine what aspects of their professional and personal lives they would like to focus their energy and efforts on.

Lastly, the findings of this study contribute to the growing body of literature on employee values in construction. As there is an increasing need for attracting and retaining a talented workforce in construction, examining the interplay between employee values and the actions that a company can exercise to fulfil these values will help researchers study employee values in other contexts and among other groups. Furthermore, the bottom-up approach used in this study helps researchers aid

their understanding of organisational structures that employees desire to activate and exercise agency within the company from employee perspectives.

FUTURE RESEARCH

These exploratory findings contribute to an understanding of the ways construction companies can promote employee recruitment and retention by providing opportunities that build employee agency. However, future work is needed to examine and articulate the interrelationships among employee values, agency, the company's strategies to align those values, and outcomes related to recruitment and retention. Traditional approaches of 'top-down' management lack a complete understanding of employee perspectives. In contrast, more studies utilising 'bottom-up' approaches in future research could help to further elicit best practices for fostering positive organisational cultures that contribute to increased recruitment and retention. Such studies could be supplemented by a full meta-synthesis of recently published literature on organisational management to take stock of the ways employee values are implicitly discussed in current recruitment and retention practices and how those may be improved.

Methodologically, future studies could build on the limitation of the open-ended survey questions by completing interviews to fully capture construction professionals' descriptions of their values. Moreover, the prompts utilised in this study did not explicitly ask respondents to describe work values; therefore, verifying the values observed in this study with construction professionals would be a fruitful area for future study.

In the present study, agency emerged as a significant contributor to construction professionals' recruitment and retention at a particular company. Future studies should utilise data collection and analytical approaches that are intentionally designed with a focus on agency to further explicate these relationships. These studies should also consider additional racial, gender, and sociocultural barriers experienced by women, minoritized races and ethnicities, and newcomers as well as the power and privilege associated with each. In examining work values, Brown



(2002) has suggested socio-economic status, history of discrimination, and gender can impact an individual's career choice. Examples of such studies include examining the relationship among hierarchical workplace structures, demographics, and workplace validation and acknowledgement (ie, promoting a sense of belonging or sense of exclusion). At the same time, studies across demographic groups could explore and investigate changes and differences in employees' values as influenced by employee roles/positions; company type, geographic location, and/or size; and other demographic characteristics previously mentioned.

In order to remain competitive, organisations need to attract and retain talented workers (Eversole et al., 2012). Emerging demographic shifts in the US workforce – including the need for generational, racial, and ethnic diversity and inclusion – are making this task more urgent and complex. To meet the emerging needs for workforce diversity and inclusion, it is important to understand employees' work values, such as a sense of belonging and feelings of being needed, understood, and recognised (Deb S. and Carlos Tasso, 2016). Obtaining these qualities of organisational culture can shape the ways organisational leaders and managers understand employee values and further inform recruitment and retention efforts with attention to employee professional growth.

CONCLUSION

It is important for individuals to find a company that provides diverse work opportunities, improves their competence, and advances career competitiveness and social networks. The present study found that construction professionals typically seek employment and stay employed with companies that support employee agency. This study utilised a qualitative approach to investigate the work values that influence recruitment and retention among construction professionals and the ways companies can facilitate those values. Specifically, responses to two open-ended survey questions were qualitatively analysed to explore and gain an understanding of common and salient

values held by construction professionals. Overall, three work values were identified for recruitment: (1) development, (2) autonomy, and (3) belonging; and three other values were identified as important for retention: (4) advancement, (5) inclusivity, and (6) flexibility. Employee agency emerged as an unanticipated yet unifying theme that linked these six values to employees' recruitment and retention in a specific company. These values contribute to an enhanced sense of agency that allows employees to maintain control in making decisions that guide and shape their careers. That is, employees become agentic co-constructors, with company support, of their career pathways. In this capacity, companies can support employee agency and promote recruitment and retention by: (1) communicating and demonstrating a commitment to building people as they build work such as promoting *modus operandi*, trust and practice, and personification and (2) building an employee-centred structure for communication, empowerment, and acknowledgement that is not stifling to employees.

From this work, the authors contend that companies who strive to build agency through the two identified actions are more likely to support employees' values that promote recruitment and retention. However, more work is needed to gain a greater theoretical understanding of the complex and dynamic interplay between construction professionals' values and their decisions to enter into or leave an employer. These complexities may be attributed to current social structures that challenge traditional gender norms and separations between work and home life. Therefore, it is imperative that construction companies acknowledge employees as multifaceted individuals, holistically consider their needs, and allow them to individually and agentially navigate their career paths. Such approaches will help companies develop necessary recruitment and retention plans that are critical in meeting the increased demand for a qualified and diverse construction workforce.

Acknowledgments

The authors would like to acknowledge for her valuable insights, continuous support, and



encouragement that she contributed in various ways while writing this manuscript. The authors acknowledge the contributions of to the broader research on the work values of construction professional staff through his technical report on the topic. In addition, the authors launched a Workforce Challenges community of practice and have gained many insights from interacting with this group. Particularly, the authors thank, who serves as the industry leader of that group. Finally, the authors gratefully acknowledge the National Science Foundation for supporting this work under CAREER Grant No. [XXX] and Grant No. [XXX]. Any opinions, findings, conclusions, or recommendations expressed here are those of the authors and do not necessarily reflect the views of the National Science Foundation.

References

- Alvesson, M. and Willmott, H. (2002), "Identity Regulation as Organizational Control: Producing the Appropriate Individual", *Journal of Management Studies*, Vol. 39 No. 5, pp. 619–644. 10.1111/1467-6486.00305
- Anita, Y., Dollarhide, C. T. and Amber, B. (2015), "The Voices of School Counselors: Essential Characteristics of School Counselor Leaders", *Professional School Counseling*, Vol. 19 No. 1, pp. 2156759X1501900. 10.5330/2156759X1501900101
- Ashforth, B. E., Harrison, S. H. and Corley, K. G. (2008), "Identification in Organizations: An Examination of Four Fundamental Questions", *Journal of Management*, Vol. 34 No. 3, pp. 325–374. 10.1177/0149206308316059
- Avery, D. R. and McKAY, P. F. (2006), "Target Practice: An Organizational Impression Management Approach to Attracting Minority and Female Job Applicants", *Personnel Psychology*, Vol. 59 No. 1, pp. 157–187. 10.1111/j.1744-6570.2006.00807.x
- Bell, N. E., and Staw, B. M. (1989). 11 People as sculptors versus sculpture: The roles of personality and personal control. In the Handbook of career theory. New York, NY: Cambridge University Press.
- Bigelow, B. F., Perrenoud, A. J., Rahman, M., & Saseendran, A. (2021). An exploration of age on attraction and retention of managerial workforce in the electrical construction industry in the United States. *International Journal of Construction Education and Research*, 17(1), 3-17. <https://doi.org/10.1080/15578771.2019.1611678>
- BLS Occupational Outlook Handbook (2020), *Occupational Outlook Handbook*, U.S. Department of Labor.
- Bluestein, D. L. (2006). *The psychology of working*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Boud, D. and Hager, P. (2012), "Re-Thinking Continuing Professional Development through Changing Metaphors and Location in Professional Practices", *Studies in Continuing Education*, Vol. 34 No. 1, pp. 17–30. 10.1080/0158037X.2011.608656
- Bragg, S. M. and Bonner, A. (2014), "Degree of Value Alignment - a Grounded Theory of Rural Nurse Resignations", *Rural and Remote Health*, Vol. 14 No. 2, pp. 1–11. 10.22605/RRH2648
- Brown, D. (2002), "The Role of Work and Cultural Values in Occupational Choice, Satisfaction, and Success: A Theoretical Statement", *Journal of Counseling & Development*, Vol. 80 No. 1, pp. 48–56. 10.1002/j.1556-6678.2002.tb00165.x
- Bureau of Labor Statistics (BLS) (2020), "Employed Persons by Detailed Industry, Sex, Race, and Hispanic or Latino Ethnicity. Labor Force Statistics from the Current Population Survey." <https://www.bls.gov/cps/cpsaat18.htm>
- Bureau of Labor Statistics (BLS) (2021), "Table 18. Annual Quits Rates by Industry and Region, Not Seasonally Adjusted Economic News Release. U.S. Department of Labor." <https://www.bls.gov/news.release/jolts.t18.htm>
- Charmaz, K. (2008), "Constructionism and the Grounded Theory Method", *Handbook of Constructionist Research*, Vol. 1 No. 1, pp. 397–412.
- Charmaz, K. (2014), *Constructing Grounded Theory*. 2nd ed, Thousand Oaks, CA: Sage.
- Chatman, J. A. (1989), "Improving Interactional Organizational Research: A Model of Person-Organization Fit", *The Academy of Management Review*, Vol. 14 No. 3, pp. 333. 10.2307/258171
- Cheung, C. M., Bowen, P., Keith, C. and Davis, J. (2019), *Measuring What Counts: Workplace Well-Being of Project Professionals*. Edited by Chris Gorse and Christopher J Neilson, ARCOM, pp. 874–883.
- Clark, S. C. (2001), "Work Cultures and Work/Family Balance", *Journal of Vocational Behavior*, Vol. 58 No. 3, pp. 348–365. 10.1006/jvbe.2000.1759
- Connerley, M. L. and Rynes, S. L. (1997), "The Influence of Recruiter Characteristics and Organizational Recruitment Support on Perceived Recruiter Effectiveness: Views from Applicants and Recruiters", *Human Relations*, Vol. 50 No. 12, pp. 1563–1586. 10.1177/001872679705001205



- Creswell, J. W. and Miller, D. L. (2000), "Determining Validity in Qualitative Inquiry", *Theory Into Practice*, Vol. 39 No. 3, pp. 124–130. 10.1207/s15430421tip3903_2
- Danforth, E. M., Weidman, J. E. and Farnsworth, C. B. (2017), "Strategies Employed and Lessons Learned by Commercial Construction Companies during Economic Recession and Recovery", *Journal of Construction Engineering and Management*, Vol. 143 No. 7, pp. 04017027. 10.1061/(ASCE)CO.1943-7862.0001310
- Deb S., L., Carlos Tasso, E. D. A., Research Affiliate, Center for Workplace Diversity Research, School of Advanced Studies, University of Phoenix, USA and University Research Chair, Center for Workplace Diversity Research, School of Advanced Studies, University of Phoenix, USA (2016), "Diversity in the Workplace and the Impact of Work Values on the Effectiveness of Multi-Generational Teams", *I-Manager's Journal on Management*, Vol. 10 No. 3, pp. 20. 10.26634/jmgt.10.3.3781
- Dubina, K. S., Morisi, T. L., Rieley, M. and Wagoner, A. B. (1915), "Projections Overview and Highlights, 2018–28", *Monthly Labor Review*, Vol. 142 No. 10, pp. 1–28. 10.21916/mlr.2019.21
- Ellett, A. J., Ellis, J. I., Westbrook, T. M. and Dews, D. (2007), "A Qualitative Study of 369 Child Welfare Professionals' Perspectives about Factors Contributing to Employee Retention and Turnover", *Children and Youth Services Review*, Vol. 29 No. 2, pp. 264–281. 10.1016/j.childyouth.2006.07.005
- Emirbayer, M. and Mische, A. (1998), "What Is Agency?", *American Journal of Sociology*, Vol. 103 No. 4, pp. 962–1023. 10.1086/231294
- Enshassi, A., Al Swaity, E. and Arain, F. (2016), "Investigating Common Causes of Burnout in the Construction Industry", *International Journal of Construction Project Management*, Vol. 8 No. 1, pp. 43–56.
- Eversole, B. A. W., Venneberg, D. L. and Crowder, C. L. (2012), "Creating a Flexible Organizational Culture to Attract and Retain Talented Workers Across Generations", *Advances in Developing Human Resources*, Vol. 14 No. 4, pp. 607–625. 10.1177/1523422312455612
- Freeman, C. (2003), "Recruiting for Diversity", *Women in Management Review*, Vol. 18 1/2, pp. 68–76. 10.1108/09649420310462343
- Giri, A., Gangopadhyay, S., Majumder, J. and Paul, P. (2019), "Model development for employee retention in indian construction industry using structural equation modeling (SEM)", *International Journal of Management*, Vol. 10 No. 4, pp. 196–204. 10.34218/IJM.10.4.2019.019
- Goldberg, C. B. (2003), "Applicant Reactions to the Employment Interview: A Look at Demographic Similarity and Social Identity Theory", *Journal of Business Research*, Vol. 56 No. 8, pp. 561–571. 10.1016/S0148-2963(01)00267-3
- Hackman, J. R. and Lawler, E. E. (1971), "Employee Reactions to Job Characteristics", *Journal of Applied Psychology*, Vol. 55 No. 3, pp. 259–286. 10.1037/h0031152
- Hall, D. T. and Moss, J. E. (1998), "The New Protean Career Contract: Helping Organizations and Employees Adapt", *Organizational Dynamics*, Vol. 26 No. 3, pp. 22–37. 10.1016/S0090-2616(98)90012-2
- Holden, S., Sunindijo, R. Y., Faculty of Built Environment, UNSW Sydney, NSW 2052, AUSTRALIA.(2018), "Technology, Long Work Hours, and Stress Worsen Work-Life Balance in the Construction Industry", *International Journal of Integrated Engineering*, Vol. 10 No. 2, pp. 13–18. 10.30880/ijie.2018.10.02.003. <http://penerbit.uthm.edu.my/ojs/index.php/ijie/issue/view/169>
- Holt, G. D. (2014), "The Door Is Ajar—Response to 'Project Management: A Profession with A Hole in Its Head or, Why A Change in the Culture of Academic Support Is Needed for the Profession'", *Engineering Project Organization Journal*, Vol. 4 No. 4, pp. 165–169. 10.1080/21573727.2014.947270
- Inabinett, J. M. and Ballaro, J. M. (2014), "Developing an Organization by Predicting Employee Retention by Matching Corporate Culture with Employee's Values: A Correlation Study", *Organization Development Journal*, Vol. 32 No. 1, pp. 55–74.
- Johnson, M., O'Hara, R., Hirst, E., Weyman, A., Turner, J., Mason, S., Quinn, T., Shewan, J. and Siriwardena, A. N. (2017), "Multiple Triangulation and Collaborative Research Using Qualitative Methods to Explore Decision Making in Pre-Hospital Emergency Care", *BMC Medical Research Methodology*, Vol. 17 No. 1, pp. 1–11. 10.1186/s12874-017-0290-z
- Judge, T. A., Bono, J. E. and Locke, E. A. (2000), "Personality and Job Satisfaction: The Mediating Role of Job Characteristics", *The Journal of Applied Psychology*, Vol. 85 No. 2, pp. 237–249. 10.1037/0021-9010.85.2.237
- Judge, T. A., Weiss, H. M., Kammeyer-Mueller, J. D. and Hulin, C. L. (2017), "Job Attitudes, Job Satisfaction, and Job Affect: A Century of Continuity and of Change", *The Journal of Applied Psychology*, Vol. 102 No. 3, pp. 356–374. 10.1037/apl0000181



- Judy, R. W. and Amico, C. d (1997), *Workforce 2020: Work and Workers in the 21st Century*, Indianapolis, IN: Hudson Institute, ERIC.
- King, Z. (2004), "Career Self-Management: Its Nature, Causes and Consequences", *Journal of Vocational Behavior*, Vol. 65 No. 1, pp. 112–133. 10.1016/S0001-8791(03)00052-6
- Laat, M. and Schreurs, B. (2013), "Visualizing Informal Professional Development Networks: Building a Case for Learning Analytics in the Workplace", *American Behavioral Scientist*, Vol. 57 No. 10, pp. 1421–1438.
- Larkin, I., Pierce, L. and Gino, F. (2012), "The Psychological Costs of Pay-for-Performance: Implications for the Strategic Compensation of Employees", *Strategic Management Journal*, Vol. 33 No. 10, pp. 1194–1214. 10.1002/smj.1974. <http://doi.wiley.com/10.1002/smj.v33.10>
- Lawler, E. E. and Hall, D. T. (1970), "Relationship of Job Characteristics to Job Involvement, Satisfaction, and Intrinsic Motivation", *Journal of Applied Psychology*, Vol. 54 No. 4, pp. 305–312. 10.1037/h0029692
- Lent, R. W. and Brown, S. D. (2006), "Integrating Person and Situation Perspectives on Work Satisfaction: A Social-Cognitive View", *Journal of Vocational Behavior*, Vol. 69 No. 2, pp. 236–247. 10.1016/j.jvb.2006.02.006
- Lincoln, Y. S. and Guba, E. G. (1986), "But Is It Rigorous? Trustworthiness and Authenticity in Naturalistic Evaluation", *New Directions for Program Evaluation*, Vol. 1986 No. 30, pp. 73–84. 10.1002/ev.1427. <http://doi.wiley.com/10.1002/ev.v1986:30>
- Ling, F. Y. Y. and Loo, C. M. C. (2015), "Characteristics of Jobs and Jobholders That Affect Job Satisfaction and Work Performance of Project Managers", *Journal of Management in Engineering*, Vol. 31 No. 3, pp. 04014039. 10.1061/(ASCE)ME.1943-5479.0000247
- Milman, A. and Ricci, P. (2004), "Predicting Job Retention of Hourly Employees in the Lodging Industry", *Journal of Hospitality and Tourism Management*, Vol. 11 No. 1, pp. 28–42.
- Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablinski, C. J. and Erez, M. (2001), "Why People Stay: Using Job Embeddedness to Predict Voluntary Turnover", *Academy of Management Journal*, Vol. 44 No. 6, pp. 1102–1121. 10.5465/3069391
- Oliver, C. (2012), "Critical Realist Grounded Theory: A New Approach for Social Work Research", *British Journal of Social Work*, Vol. 42 No. 2, pp. 371–387. 10.1093/bjsw/bcr064
- Oyer, P., and Schaefer, S. (2010). Personnel Economics: Hiring and Incentives (Working Paper no.15977; Working Paper Series). National Bureau of Economic Research. <https://doi.org/10.3386/w15977>
- Paarlberg, L. E. and Perry, J. L. (2007), "Values Management: Aligning Employee Values and Organization Goals", *The American Review of Public Administration*, Vol. 37 No. 4, pp. 387–408.
- Patton, M. Q. (1990), *Qualitative Evaluation and Research Methods*. 2nd ed, Sage.
- Rouhanizadeh, B. and Kermanshachi, S. (2021), "Causes of the Mental Health Challenges in Construction Workers and Their Impact on Labor Productivity", *Proceedings of the 2021 Trans-SET Virtual Conference*. 10.1061/9780784483787.003
- Rubenstein, A. L., Eberly, M. B., Lee, T. W. and Mitchell, T. R. (2018), "Surveying the Forest: A Meta-Analysis, Moderator Investigation, and Future-Oriented Discussion of the Antecedents of Voluntary Employee Turnover", *Personnel Psychology*, Vol. 71 No. 1, pp. 23–65. 10.1111/peps.12226. <http://doi.wiley.com/10.1111/peps.2018.71.issue-1>
- Ryan, T., Chester, A., Reece, J., Xenos, S., A., C., J., R. and S., X. (2016), "A Qualitative Exploration of Facebook Addiction: Working toward Construct Validity", *Addicta*, Vol. 3 No. 1, pp. 55–76. 10.15805/addicta.2016.3.0004
- Sakhrani, V., Chinowsky, P. S. and Taylor, J. E. (2017), "Grand Challenges in Engineering Project Organization", *Engineering Project Organization Journal*, Vol. 7 No. 1. 10.25219/epoj.2017.00102. <https://epojournal.net>
- Schmid, B. and Adams, J. (2008), "Motivation in Project Management: The Project Manager's Perspective", *Project Management Journal*, Vol. 39 No. 2, pp. 60–71. 10.1002/pmj.20042
- Simmons, D. R., Iorio, J., Taylor, J. E. and Li, D. (2018), "Professional Progression, Company Commitment, and Project Choice: An Empirical Investigation into Professional Staff Values in Construction", *Construction Research Congress*, pp. 565–574.
- Sirota, D., Mischkind, L. A. and Meltzer, M. I. (2005), "Assumptions That Kill Morale", *Leader to Leader*, Vol. 2005 No. 38, pp. 24–27. 10.1002/ltl.149. <http://doi.wiley.com/10.1002/ltl.v2005:38>
- Smithers, G. L. and Walker, D. H. T. (2000), "The Effect of the Workplace on Motivation and Demotivation of Construction Professionals", *Construction Management and Economics*, Vol. 18 No. 7, pp. 833–841. 10.1080/0144619000433113



- Super, D. E. (1980), "A Life-Span, Life-Space Approach to Career Development", *Journal of Vocational Behavior*, Vol. 16 No. 3, pp. 282–298. 10.1016/0001-8791(80)90056-1
- Taris, T. W. and Kompier, M. A. J. (2004), "Job Characteristics and Learning Behavior: Review and Psychological Mechanisms", *Research in Occupational Stress and Well Being*, Vol. 4, pp. 127–166. 10.1016/S1479-3555(04)04004-1
- Thomas, D. R. (2006), "A General Inductive Approach for Analyzing Qualitative Evaluation Data", *American Journal of Evaluation*, Vol. 27 No. 2, pp. 237–246. 10.1177/1098214005283748
- Thompson, C. A. and Prottas, D. J. (2006), "Relationships among Organizational Family Support, Job Autonomy, Perceived Control, and Employee Well-Being", *Journal of Occupational Health Psychology*, Vol. 11 No. 1, pp. 100–118. 10.1037/1076-8998.10.4.100
- U.S. Census Bureau (2019), "Standard Occupational Classification (SOC) Codes for 2018 and Later Based on 2018 SOC Codes, Occupation, ASC 1-Year Estimate-Public Use Microdata Sample Table." <https://data.census.gov/mdat/#/search?ds=ACSPUMS1Y2019>
- Volmer, J. and Spurk, D. (2011), "Protean and Boundaryless Career Attitudes: Relationships with Subjective and Objective Career Success", *Zeitschrift Für ArbeitsmarktForschung*, Vol. 43 No. 3, pp. 207–218. 10.1007/s12651-010-0037-3
- Welfare, K., Sherratt, F. and Hallowell, M. (2021), "Perceptions of Construction Work: Views to Consider to Improve Employee Recruitment and Retention", *Journal of Construction Engineering and Management*, Vol. 147 No. 7. 10.1061/(ASCE)CO.1943-7862.0002057
- Yankov, L. and Kleiner, B. (2001), "Human Resources Issues in the Construction Industry", *Management Research News*, Vol. 24, pp. 101–105. 10.1108/01409170110782711