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Comparing Human Traits and Tendencies: A Study of Facility Managers and Procurement Professionals

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The facility workforce has recognized an increase in the number of facility management professionals. However, the ability to identify, develop, and retain these individuals is an essential task to the success of the facility management sector broadly across many organizations. As a result, the purpose of this research is to shed light on the usage of human traits profiles for facility professionals using procurement professionals as a benchmark of comparison to assist in recruiting and retaining experts in the facility workforce. The study used HEXACO personality inventory, Emotional Intelligence, and Q-Disc behavioral diagnostics to identify the differences between 49 facility managers and 319 procurement professionals. The collected data was analyzed using a t-test to estimate quantitatively. This analysis identified significant differences between the two fields. As one of the few studies for human traits profiles in facility management, this paper will help enhance talent retention and solidify the facility management industry's foundations on a global scale.

Keywords: Human traits, Facility Manager, Procurement Professional, Talent Development.

Introduction

The facility management sector has matured over the years and is now one of the youngest disciplines in the built environment, with a global presence. Hence, due to its presence worldwide, there has been an increase in the demand for its workforce, and workforce management (Delaney & Huselid, 1996). The identification of tools to help recruit, retain, and manage the entire workforce is essential. Although diverse tools to implement this have been extensively reviewed, the use of human traits has

not gained much attention in managing the facility management workforce. Given that the facility management profession is a ‘people’ profession, as it deals extensively with vendors, customers, and contractors, a comprehensive knowledge of personality traits would be essential to adopt in executing tasks effectively.

This study aims to analyze and compare the various human characteristics and behaviors of facility managers and procurement professionals in the construction sector. It seeks to help individuals identify their strengths and weaknesses in personality, emotional intelligence, and behavior, and to aid organizations in workforce development, including retention, recruitment, and knowledge sharing. The focus is on the traits of procurement professionals and facility management, an area with scant existing literature.

Literature Review

Facility Management (FM) focuses on the upkeep and operation of buildings to improve their use and a company's core productivity (ISO, n.d.). Census by BLS (2021), reports that billions are spent annually on new construction and ongoing operations, and there's a growing need for FM professionals. Yet, challenges arise due to an aging FM workforce and a lack of new talent, potentially leading to unfillable skilled positions (Sullivan et al., 2010). Facilities companies must first determine the personality traits and skills that lead to employee excellence in order to effectively hire, retain, and train their workforce.

The facility management sector, highly reliant on people, depends on the collaborative efforts of its diverse workforce. Recognizing the importance of personality traits in new hires, current employees, and retirees is crucial for successful succession and project outcomes, as noted by (Atalah, 2014) and (Maali et al., 2022) in their emphasis on the impact of personality on job performance in construction. Marcus et al., (2013) suggests that personality traits largely shape a person's values, behaviors, motivations, and perceptions, implying that inherent personality attributes significantly define one's character. Research, including (Carr, 2000), shows that these traits affect job performance.

Within the construction sector, various studies on human traits have been undertaken (Kassa et al., 2022;Ogundare et al., 2023). Trait theory has been widely used in various fields, including inventory management for procurement professionals (Strohhecker, 2013) and Supply Chain Management (SCM). These studies reveal the multiple benefits of recognizing and developing traits, as they are strong predictors of job performance and satisfaction in different roles (Salgado 2002). Muchinsky (2012) emphasizes their crucial role in recruitment, training, and mentoring, while Williamson et al. (2013) note their contribution to enhancing human resource quality. (Kassa et al., 2022) stress the importance of understanding the link between personality traits, workforce development, and ethical decision-making in the construction industry. Using personality assessments in construction helps understand professional behaviors and their reactions.

In the bid to examine the differences between both professionals HEXACO, Emotional Intelligence (EI), and Q-Disc personality traits were utilized. Jordan et al. (2002) described HEXACO among the most popular models for evaluating personality. It encompasses various facets of a person's behavioral inclinations. Numerous past studies have applied HEXACO specifically to the construction sector (Cheah, 2020; Kassa et al., 2020; Ogundare et al., 2023; Wang et al., 2016). Emotional Intelligence (EI) is a key metric for gauging human aspects. It involves the ability to identify and express emotions, blend emotions with thoughts, understand and reason emotions, and control emotions both

in oneself and in others. While the construction sector has studied the impact of personality traits on project outcomes, this area remains under-researched in facility management. The absence of such studies underscores the importance of personality evaluations in recruiting and training facility managers. Conducting this pilot study can pinpoint top-performing employees, enhancing their job performance and potentially decreasing staff turnover.

Research Method

The study assessed facility managers and procurement professionals using three criteria: personal characteristics, emotional intelligence, and behavioral tendencies. It aimed to provide a comprehensive comparison of both roles and the selection of these measures was based on their strong foundation in literature. The following sections detail their descriptions, measurement scales, data collection, and analysis methods.

Measures

The comparative study survey comprised the HEXACO Personality Inventory, Emotional Intelligence Diagnostic, and the Q-Disc 101 Behavioral Assessment. The details of these subcomponents are elaborated further below.

HEXACO Personality Inventory

Ashton (2018) formulated the HEXACO Personality Inventory and it gauged personality through six primary dimensions: **Honesty-Humility**(H), **Emotionality**(E), **Extraversion** (X), **Agreeableness**(A), **Conscientiousness**(C), and **Openness** to **Experience**(O). Each dimension is further segmented into four facets with dimensions rated on a 1 to 5 scale reflecting agreement or disagreement. This personality inventory consisted of 60 questions. The HEXACO scale doesn't indicate better or worse scores; each domain is a spectrum of personality traits where high and low ends are subjectively interpreted. A mid-range score suggests a balanced personality between the extremes in a specific domain or subdomain (Kassa et al., 2022). The various facets are:

- Honesty-Humility(H): Sincerity, Fairness, Greed, Avoidance and Modesty.
- Emotionality (E): Fearfulness, Anxiety, Dependence and Sentimentality.
- Extraversion(X): Social Self-Esteem, Social Boldness, Sociability, and Liveliness.
- Agreeableness (A): Forgiveness, Gentleness, Flexibility and Patience.
- Conscientiousness (C): Organization, Diligence, Perfectionism and Prudence.
- Openness to Experience(O): Aesthetic, Appreciation, Inquisitiveness, Creativity, and unconventionality.

Emotional Intelligence Diagnostic

The Emotional Intelligence (EQ) Appraisal included 28 questions, where participants specified the frequency of certain behaviors they exhibit. The questions were framed using the Likert scale, with 1 being "strongly disagree," 5 as "neutral," and 10 representing "strongly agree." The scores obtained aim to evaluate the participant's ability to identify and regulate their feelings as well as understand and manage the emotions of others. EQ is broadly divided into one’s competence (Self-Awareness and Self-Management) and social competence (Social-Awareness and Relationship Management).

- Self-Awareness (SEA): An individual's ability to accurately assess their current emotions and understand their reactions in various situations.
- Self-Management (SM): An individual's capacity to leverage emotional understanding to remain adaptable and guide their actions in a positive direction.
- Social Awareness (SOA): An individual's ability to accurately perceive emotions in others and truly understand their state, coupled with managing relationships.
- Relationship Management (RA): An individual's capacity to adeptly navigate interactions by being attuned to both their own emotions and the feelings of others.

DiSC Behavioral Assessment

This research employed the QDiSC-101, a variant crafted by Dr. Avi Wiezel of the four-quadrant behavioral assessment instrument. It offered insights into the participant's work-related priorities and inclinations. The four-quadrant tool is further divided into work orientation ranging from task-focused to people-focused and communication approach from reserved or outspoken. Based on these the tool was majorly categorized into

- Dominant (D): A behavioral assessment of being domineering, demanding, precise, powerful, and conventional.
- Inspiring (I): A behavioral assessment of being convincing, persistent, and stimulating.
- Supportive (S): A behavioral assessment of being kind, compassionate, companionable, and willing.
- Cautious (C): A behavioral assessment of being soft-spoken, nervy, and neighborly.

The scoring system used a scale that spanned from -4 to +4 for both work orientation and communication style.

Data Collection and Analysis

This study's research population consisted of facility managers and procurement professionals from the United States, Canada, and Australia. Given the exploratory nature of this study, the author sought volunteer participants after giving a presentation and other industry outreach. The survey was distributed via an online survey system. Future research will significantly expand the scope and breadth of target respondents. The data collection effort involved making the personal characteristics, emotional intelligence, and behavioral diagnostics assessments available online for volunteering participants. A total of 49 facility managers and 319 procurement professionals participated in the study. Taking part in this survey was completely voluntary and all responses' anonymity was properly protected to ensure participants' privacy. All volunteers were given an IRB-compliant consent declaration for all the assessments. Table 1 provides an overview of the number of respondents.

Table 1
Number of Respondents by Profession

Profession	Number of Respondents
Facility Managers	49
Procurement Professional	319
Total	368

In this study, SPSS Statistics was used to analyze the data. Univariate descriptive statistics were employed to investigate the central tendency, dispersion, and overall structure of the sample data. To examine potential statistically significant mean differences in human traits measures between facility managers and procurement professionals, an Independent T-test was conducted.

Results and Findings

An independent-samples t-test was run to determine if there were differences in human traits between facility managers and procurement professionals. Q-Q Plots revealed that the data was normally distributed for both groups. Levene's equality of variances test verified that the dataset's variance homogeneity assumption was fulfilled. Therefore, an independent t-test was run on the data with a 95% confidence interval (CI) for the mean difference. The summarized outcome of this analysis can be found in Table 2.

Table 2

Statistically Significant Differences Between Facility Managers and Procurement Professionals

Factors	**Significance**	**Mean Difference**	**Percentage Difference**
Greed-Avoidance	<.001	-0.207	-7%
Fearfulness	<.001	0.024	1%
Anxiety	0.033	-0.053	-2%
Patience	<.001	-0.092	-3%
Organization	<.001	-0.452	-14%
Diligence	0.004	0.196	5%
Perfectionism	0.108	-0.727	-25%
Conscientiousness	0.003	-0.288	-8%
Aesthetic Appreciation	<.001	0.117	3%
Creativity	0.003	0.017	1%
Openness to Experience	0.009	-0.107	-3%
Social Awareness	0.025	-5.192	-7%

Facility Managers Higher Mean HD Scores

When compared to procurement professionals, facility managers scored higher in Diligence (+5%). Diligence represents the tendency to work hard (Ashton and Lee, 2009). Higher scores in this domain show facility managers, compared to procurement professionals, are more likely to have higher self-discipline, strong work ethic, and motivation. Aesthetic Appreciation (+3%) is another factor where facility managers scored higher than procurement professionals. Higher scores of Aesthetic Appreciation show facility managers' tendency to get absorbed in complexity and emphasis on aesthetics. Additionally, Facility managers compared to procurement professionals are more likely to

be creative (+1) in that they tend to be more innovative and experiment with newer areas for the success of their projects.

Facility Managers Lower Mean HD Scores

Facility managers, on the other hand, scored lower in Greed Avoidance (-7%) compared to procurement professionals. Lower scores in Greed avoidance show an inclination towards enjoying privilege and high social status (Ashton and Lee, 2009). Organization (-14%) is another domain where facility managers scored lower in comparison to procurement professionals. This shows facility managers' tendency to be sloppy in seeking order on their projects. They are likely to complete tasks using haphazard approaches. Similarly, facility managers scored lower in Perfectionism (-25%), indicating their tendency to tolerate errors in their work, overlooking details. Conscientiousness (-8%) is another domain where facility managers scored lower compared to procurement professionals. Lower scores in Conscientiousness relate to the inclination to be unconcerned with orderly surroundings or schedules. Facility managers, according to this result, tend to avoid challenging tasks and be satisfied with work that has some errors. Following this, they may make impulsive decisions with little reflection. Facility managers also scored lower in Social Awareness (-7%) indicating they are less likely to accurately determine what is happening in their organization. Compared to procurement professionals, facility managers tend not to detect and comprehend other people's emotions.

Discussion

In the assessment of work diligence between procurement professionals and facility managers, it was observed that facility managers tend to exhibit a greater commitment to their work. This could be attributed to the necessity for meticulous attention and a systematic approach in maintaining the built environment to superior standards. Such heightened diligence implies that facility managers may be equipped with the essential self-discipline and drive required for effective management of complex facilities. Contrastingly, Ogundare et al. (2023) pointed out that a greater propensity for diligence is instrumental in an individual's superior performance and suggests a potential to excel. Given this insight, it's clear that the diligent characteristic of facility managers not only augments their effectiveness in their current roles but also suggests that they possess the potential to advance in their careers, perhaps even into more senior positions within facility management or beyond. Their higher scores in Aesthetic Appreciation reflect a keen awareness of their surroundings, coinciding with their duty to uphold both the beauty and functionality of the facility they oversee. However, Kassa et al. (2022) highlighted the fact that a trait like aesthetic appreciation suggests value for the presence of more codes of conduct to steer professional responsibilities, essential for the industry's integrity. This appreciation assists in creating work settings that aren't merely efficient but also elevates the living standards of the inhabitants.

The modest advantage in creativity that facility managers tend to possess indicates their readiness to embrace new ideas and pursue innovative strategies to improve the functionality and productivity of the environments under their care. This inclination towards creativity is particularly valuable as it facilitates their ability to adjust to continuous changes and meet the shifting requirements of their organizations. Given the rapid pace of change in today's world, this creative trait is crucial for facility managers to keep pace with emerging innovations. On the other hand, their lower tendencies in Greed Avoidance might expose the profession to risks of valuing personal or professional advantages over collective ethical standards. This concern highlights the importance of establishing robust ethical

guidelines and comprehensive ethics training within the field. Kassa et al. (2022) has pointed out that human characteristics are a fundamental component of individuals' ethical conduct. Therefore, it's particularly concerning that facility managers exhibit lower resistance to greed, a finding that warrants close examination. A deficiency in this area could compromise the integrity with which facility managers engage with suppliers and contractors. Developing their soft skills through targeted training could be pivotal in enhancing their sense of responsibility and fostering a culture of openness and honesty in their professional activities. Moreover, their lower scores in areas such as Organization and Perfectionism may reflect a tendency towards a more adaptable and improvisational management style. While this flexibility can be advantageous, allowing for swift adjustments and creative problem-solving, it could also hint at a predisposition towards a lack of structure or a willingness to overlook mistakes, potentially leading to inefficiencies or a decline in the quality of work. Ogundare et al. (2023), reiterated the significance of traits such as organization and perfectionism, which are lower in facility managers, has been emphasized as crucial in helping the construction workforce to manage and successfully execute construction projects. This accentuates the necessity for facility managers to cultivate these traits.

The limited social awareness of facility managers raises concerns about their interpersonal skills, crucial for dealing with various stakeholders. This deficiency could impact effective communication and problem-solving. Their inability to understand and react to others' emotions could be a drawback. Mischung et al. (2015) suggest that training programs focused on improving social awareness have significantly boosted both individual and team performance in construction. Identifying these traits highlights areas for growth in facility managers, including enhancing organization, ethical behavior, and social skills, which are essential for professional development and adapting to industry demands.

Conclusion

In summary, this study illuminates significant distinctions in human traits between facility managers and procurement professionals, shedding light on their diverse characteristics. Notably, the facility managers that participated in this study showed higher levels of Fearfulness, Diligence, Aesthetic Appreciation, and Creativity, whereas procurement professionals scored higher in Greed Avoidance, Organization, Perfectionism, Conscientiousness, and Social Awareness. These differences underscore the unique demands of their respective roles, highlighting the substantial differences in work environments across sectors.

The primary contribution of this study lies in providing a comprehensive understanding of the traits and inclinations inherent to facility managers and procurement professionals. By emphasizing the importance of assessing human traits, this study emphasizes the practical significance of understanding employees' personal characteristics. Organizations can enhance their workplace environments by leveraging employees' personality traits, emotional intelligence, and behavioral attributes, thereby fostering improved staff retention. Embracing insights from human traits assessments can promote workspaces where diverse perspectives are valued, paving the way for increased innovation, mutual respect, and personal growth.

Furthermore, the implications of this study extend significantly to the workforce in both facility management and procurement professions. Employees stand to gain invaluable insights from this research, enabling them to cultivate realistic expectations when collaborating with colleagues and transitioning between roles. Armed with a deeper understanding of their work environment, individuals can engage more effectively with their peers, fostering a more harmonious workplace

atmosphere. Knowing oneself empowers individuals to leverage their strengths, identify areas for growth, and appreciate the myriad viewpoints held by others. Harnessing the potential of human traits assessments can be transformative, enabling individuals to optimize their inherent capabilities, address areas that require development, and gain profound insights into the diverse perspectives of their colleagues.

Limitation and Recommendation

The population of facility managers in this study was constrained by a shortage of available data. To gain a more comprehensive understanding of the role, ongoing data collection efforts are underway. Furthermore, this study did not explore the factors contributing to variations in facility manager and procurement professional traits across different career trajectories. The specific elements influencing these traits in relation to the professional experiences and backgrounds of facility managers and procurement professionals were not elucidated. To address this gap in knowledge, it is imperative to conduct further research. Future studies should focus on investigating how human traits are shaped by the diverse professional journeys and backgrounds of facility managers and procurement professionals. This research should not only consider the overarching differences between these roles but also explore the distinctions within each role across various career levels. By examining these aspects, researchers can gain valuable insights into the multifaceted influences on professional traits, paving the way for a more comprehensive understanding of the subject matter.

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