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Operant Competences, Emotional Competences, Role Clarity and the Climate of Occupational Health and Safety in the Building Industry

[1] **Helen Kibukamusoke, Makerere University, helenkibs@gmail.com**
[2] **Martha Kibukamusoke, Ndejje University, marthakibumo24@gmail.com**

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Abstract

In the wake of the increasing economic growth rate in Uganda, there is a major growth rate in the amount of construction in the recent past which has been coupled with an increase in falling buildings. The study sought to investigate the relationship between operant competences, emotional competences and role clarity in the construction industry highlighting the laxity in supervision and on job training of professionals in the building industry as a major contributor of fatalities in the building industry. Snowball sampling was used to identify professionals in the building industry through recommendation from other professionals to fill in the questionnaires. The sample constituted of 130 professionals ranging from consultant engineers, civil engineers, site or construction supervisors and apprentices from Kampala and Entebbe, with ages ranging from 20 to 60 years. The data was analysed using Statistical Package for Social Scientists (SPSS). The study results show that operant competence and emotional competences are significant predictors of safety climate while role clarity did not predict safety climate. The study recommends Uganda's Ministry of Works and Transport along with the Ministry of Lands, Housing and Urban Development to design, develop and set mandatory training for all professionals in the building industry. It further encourages the Ministries to set supervisory requirements for all professionals in the building industry discouraging the use of disguised, incompetent or ill experienced building professionals who are unclear about their role expectations therefore building the competence of the building professionals and ultimately their attitude towards safety.

Key words: Operant Competences, Emotional Competences, Role Clarity, building industry.

INTRODUCTION AND BACKGROUND

During 1995-2004, 4,775 construction accidents were recorded in the Works Department of Hong Kong with 1,401 (29 percent) cases concerning building repair and maintenance works. During 2001-2004, there were 300 construction accidents in building repair and maintenance works (Chan et al., 2006). Uganda is experiencing a progressive growth in the economy at an average rate of 8.9 percent of Gross Domestic Product annually, making it one of the fast-growing economies in the world (Suruma, 2008). The high economic growth rate has impacted positively on a number of sectors most notably the construction sector with an incremental growth from 15 percent in 1990 to 40 percent in 1999 according to the Minister of Works, Housing and Communications (Nasasira, 2001). The construction industry has thus become the second-largest employer after agriculture. The rapid growth in this sector has been driven by the increased demand for construction and evidenced by the numerous structures that have risen. This industry has witnessed an increased number of injuries and accidents (fatal) on the construction sites in the recent past and increased threat to occupational safety and health.

The City of the Lord Church collapsed following a heavy downpour on Wednesday 8th March 2006 killing 26 people and injuring at least 86 other worshippers when the church wall crumbled (Vision Reporter, 2006 March 9). The church did not have an approved plan and it lacked Kampala Capital City Authority (KCCA)'s supervision. Although city authorities tried to halt the church's construction, the pastor who also doubled as site engineer defied their orders (Nakaayi, 2006). Another incident happened at a construction site for a hotel in a larger complex in Bwebajja which was situated on a slope overlooking the main highway from the capital, Kampala, to Entebbe International airport. Bwebajja is 18km south-east of Kampala.

The building collapsed on Wednesday morning after workers removed support poles on the first floor, witnesses said. One side of the building buckled first and then all three floors dropped onto each other, they said. The hotel collapsed due to poor workmanship and construction failure, the Fire and rescue Chief Joseph Mugisha said on Wednesday 1 September 2010 (Olubi, & Adewolu, 2018).

"The cement that was used for mixing the concrete was not enough." About 20 construction workers were hospitalised and 5 bodies that were buried had been exhumed from the rubble of a construction accident in Uganda. Rescue workers were scrambling on Thursday to save more still trapped alive a day after a three-storey building collapsed on them, a Ugandan official said. It was noted that buildings collapse due to poor design processes caused by inappropriate and flawed designs (Olubi, & Adewolu, 2018).

Competences are internally held human resource skills and expertise that an individual brings to the job and which are considered essential for carrying out the job successfully (Strebler, 1997). Dubois and Rothwell (2000) identified the types of competencies as: technical or functional competencies also known as operant competences, and personal functioning or emotional competencies. Operant competences are defined as the relationship between a worker and his or her work environment (Munene, 2005 PPDA TOT training report). An emotional competence is a learned capability based on emotional intelligence that results in outstanding performance at work (Goleman, 1998). The more competent one is, the more he/she experiences role clarity (Munene et al., 2004).

Role clarity is defined as the individual's perceptions about the expectations and behaviours associated with his/her role (Lyons, 1971). Employees are often unclear about how to do their jobs, when certain tasks should be performed and the criteria by which their performance will be judged (Breaugh & Colihan, 1994). This lack of clarity impacts on the attitude towards occupational health and safety. The root causes of construction accidents as unsafe site conditions, lack of proper training, deficient enforcement of safety, insufficient provision of safety equipment, unsafe methods or sequencing, poor attitude toward safety and isolated and sudden deviation from prescribed behaviour. The Minister of Works, Housing and Communications carried out a survey and released a report on building inspection and construction in several districts in which they stated a number of causes of accidents in the construction industry (Kyazze, 2023). The report revealed that professionals had no consideration for occupational health and safety, used poor quality construction materials and buildings were poorly maintained. The government policy was unsupportive and obsolete, with lack of technical know-how. This is because there was poor sensitisation of requirement for supervision of building professionals whose services are still perceived as expensive and unaffordable. People therefore resort to using disguised, incompetent or ill experienced building professionals who are unclear about their role expectations. Construction and maintenance is dangerous by its nature and increased emphasis needs to be placed on competence acquisition, clarification of roles and occupational health and safety in order to reduce the cost to the industry and increase the performance of the employees in the construction industry, (Caleb, Olonade & Lawan 2023).

The rapid growth in the construction sector has increased demand for construction and this is evidenced by the numerous structures that have risen. However, professionals in the building industry are not adequately trained or are semi-skilled (Senyonjo & Ronaldley, 2007) and are not adequately supervised by qualified competent personnel with work-based competences, to handle this growing demand. The lack of specialised supervision leaves the professionals with limited knowledge of construction requirements, how to acquire and use specialised equipment and building skills. Even though the professionals have the required academic qualifications, the lack of training and supervision leaves them unclear about their roles and expectations thus increasing their vulnerability to making obvious mistakes resulting in more injuries and fatalities (Nishgaki, 1994).

Research objectives

The paper sought to investigate the relationship between competences and role clarity in the construction industry. The study was guided by the following specific objectives;

1. To identify the operant competences of professionals in the building industry
2. To identify the relationship between operant competences and role clarity
3. To identify the relationship between emotional competences and role clarity.
4. To identify the relationship between role clarity and safety climate.

LITERATURE REVIEW

Operant Competences and Role Clarity

Operant competences are the relationship between a worker and his or her work environment. An operant competence directly influences the work environment and contains its own reinforcements (Hineline, 1992). For instance, when workers meet or exceed performance objectives they influence their working environment in at least two ways. One, they create a situation of anticipation of a response from the superior or colleagues because the behaviour is observable. Two, irrespective of the expected response from one's superior or colleagues (the environment), the act itself is positively reinforcing because its impact on other aspects of the environment are observable to the performers.

Operant competences are also referred to as technical competencies. "Technical competencies as defined by Dubois and Rothwell (2000) are the specialized primary and highly related knowledge and skill competencies that employees must possess and use in appropriate ways on the job." They are the 'corporate-wide technologies and production skills that empower individual businesses to adapt quickly to changing opportunities. Technical and functional expertise are underlying knowledge and skills, described in observable and measurable terms, that are necessary in order to perform a particular type or level of work activity. This definition emphasizes the need to be aware of the context in which work activities are carried out as it often determines the final output in quality and quantity (Munene, 2005).

Armstrong and Baron (1995) defined competences as what a job holder needs to do and what he/she needs to know-how to be able to perform to the expectations. A person possesses a competence as long as the skills, abilities, and knowledge that constitute that competence are a part of them, enabling the person to perform effective action within a certain workplace environment. Therefore, one might not lose knowledge, a skill, or an ability, but still lose a competence if what is needed to do a job well changes.

Role clarity is defined as the individual's perceptions about the expectations and behaviours associated with his/her role. According to Bauer and Spencer (2005) in order for the incumbent to perform his/her roles, there is need to know what the expectations of the role set are (the rights, duties and responsibilities); what activities will fulfil the role responsibilities (means-end knowledge) and what are the consequences of performing the role to self, others and the organisation. This is in agreement with Munene et al (2007) whose model of operant competence analysis and profiling aims at unveiling to the role holder the competences needed to perform to satisfactory standard in a role so as to achieve the required objectives. The intervention of operant competence framework increases a secure way of capturing, compiling, storing, sharing and thereafter apply such undocumented knowledge which in turn provides the role holder with opportunities to learn from work experiences (Lan, Hu, & Nie 2025).

Operant competences guide the job holder on what to do and provide opportunities and cognitive skills to learn more from other job holders and from their work experiences. Operant competence interventions increase and make individuals' roles more meaningful as the role incumbent is able to uncover and unpack tacit knowledge embedded in him/her over the years. Roles represent sets of behaviours that are expected of employees. Each employee's role should be defined so that one is clear about one's role. The clearer the role expectations the better the individual is to predict how best to behave, which in turn reduces uncertainty associated with the work situation. It is argued that individuals who possess information that increases their understanding of; the task attributes, complexities and task environment, strengthen their perception of competence. The more competent one is, the more one experiences role clarity (Munene et al., 2004).

Role clarity correlates significantly though moderately with perceived operant competences, operant competence analysis and profiling experience and level of education. Thus, the more competent one is, the more he/she experiences role clarity "Competent performance" occurs when an individual achieves or produces some result or output at the level of quality established for it within the constraints or opportunities of the performer's internal and external environments. In organizations, employees are frequently faced with the dilemma that they know-how to perform the work that is expected of them, but there are constraints, or performance roadblocks which they are powerless to remove and that impede their "competent performance." Interventions using the operant competence framework increase role clarity and reduce job related stress among the role holders (Lan, Hu, & Nie 2025).

Hall (2004) argues that uncertainty (role ambiguity) about the expectations of a work role can lead to tension, anxiety, fear, anger, hostility, futility and apathy. These feelings decrease an individual's satisfaction with their role. Role ambiguity exists when the role incumbent is uncertain about the scope of responsibilities required of him/her that may not be clearly articulated in terms of behaviours necessary to fulfil the activities or tasks. Role ambiguity is an important determinant of stressful work environment. Munene et al (2004) argued that interventions using the operant competence framework increase role clarity and reduce job related stress among the role holders. Tölli, et al (2021) further argued that the operant competence model tries to derive behavioural competences that aim at role clarity. This could lead to improving overall performance of role holders and the organisations. According to Munene et al (2004) operant competence profiling is aimed at uncovering and making available to role incumbents the undocumented elements of work environment. This exposure should increase role clarity and provide jobholders with opportunities and cognitive skills to learn more from their workplace and experience (Munene et al., 2004 & Tölli, et al (2021). It is expected therefore that the introduction of operant competence analysis and profiling in a work situation should increase role clarity, reduce job related stress, and improve overall performance of individuals (Mugabi, 2022). Incumbents who are found to be more competent on an operant profile checklist should feel more psychologically empowered than those found to be less competent. Thus, by removing role ambiguity through the process of competence analysis and profiling, managers and subordinates should feel more disposed to introduce and implement empowerment measures (Houtzagers, 1999 & Kyazze, 2023).

Emotional Competences and Role Clarity

According to Cole (1997) competence is an ability that demonstrates to another person that the role holder can perform a task, process or function to a satisfactory standard. Competences are sets of behaviours that the role holder must display in order to perform the tasks and functions to a satisfactory standard (Armstrong & Baron, 1995). A competence is a description of something which a person who works in a given occupational area should be able to do. It is a description of an action, behaviour or outcome which a person should be able to demonstrate". Competence is not related solely to the work activities deemed to be required to meet unequivocal organisational goals, but is emergent in the complex of personal, social and technical factors in a dynamic context in which differences and disagreement are liable to arise (Tölli et al 2021).

Emotional competence refers to one's ability to express or release one's inner feelings (emotions). They are not oriented or aligned with any particular functional or technical specialty. They include the characteristics that employees call upon and consistently use - along with their technical competencies - to be successful performers with other persons, both internal and external to their organization. They can also include knowledge and skills elements (Dubois & Rothwell, 2000). They determine one's ability to effectively and successfully lead and express. Emotional competence is described as the essential social skills to recognize, interpret, and respond constructively to emotions in yourself and others. The concept of emotional competence is rooted in understanding emotions as normal, useful aspects of being human, (Mugabi, 2022).

An emotional competence is a learned capability based on emotional intelligence that results in outstanding performance at work (Goleman, 1998). Emotional Intelligence is a set of competencies demonstrating the ability one has to recognize his or her behaviours, moods, and impulses and to manage them best according to the situation. Emotional intelligence is considered to involve emotional empathy, mood management or control over emotions and balancing of honest expression of emotions against courtesy, consideration, and respect (Poskey, 2005). Emotional intelligence can identify both the biases and clarity in one's thinking patterns that allow them to make good sound decisions. An employee with high emotional intelligence can manage his or her own impulses, communicate with others effectively, solve problems, and use humour to build rapport in tense situations, (Lan, Hu, & Nie 2025). By identifying the competencies that exemplary workers use to perform a common body of work, organizations can raise the performance bar for all employees' performance by helping fully successful workers understand and apply the competencies that best-in-class workers use to achieve the same work outputs or results and that distinguish their performance (Dubois, 2007).

Emotional competences greatly depend upon the individual's personal characteristics and this dependence upon personal characteristics to carry out a task makes it difficult to know what is expected of the individual as each individual is bound to react differently (Goleman, 2001). Munene et al (2004) stated that the inability of a role holder to know what to do leads to role ambiguity. Parasurama (as quoted by Bauer, 2002) defined role clarity as the extent to which role holders receive and understand information needed to do their jobs. Parasurama emphasizes that given the importance of achieving high role clarity; organisations should take concrete steps to clarify employees' roles because role clarity has a strong positive association with empowerment and job satisfaction. In a similar way, Bauer (2002) & Tölli, et al (2021) considered role clarity to be a subjective feeling of owning relevant information as a role holder would like to own. He asserted that clarity of goals, paths and lines of responsibility greatly improves empowerment in the workplace and is associated with job satisfaction in workplaces.

Role clarity is an antecedent of psychological empowerment because unless individuals have a clear sense of their responsibilities and how to achieve them, they are unlikely to believe that they have the necessary skills and abilities to perform tasks adequately (Hall, 2004). Clarity is the degree to which individuals believe they are clear versus confused by their emotions. Role ambiguity is hypothesised to influence perceived locus of control or self-efficacy which has been found to correlate with willingness to be empowered (Honneger & Applebaum, 1998 & Tölli, et al 2021).

Being unaware of or underestimating one's emotional intelligence may prevent a person from making use of it. Persons with no confidence in their emotional knowledge are unlikely to rely on their judgments about the emotional aspects of situations, even if their emotional intelligence level indicates that they should. Beyond not using emotional knowledge, it would be difficult for individuals to feel in control of a situation when they perceive themselves as being confused about their emotional reactions. Role clarity is the extent to which individuals receive and understand information needed to do their jobs (Bauer, 2002). Studies indicate that the ways in which roles are defined, communicated and perceived, determine subsequent performance (Armstrong, 2000).

In work places, role clarity moderates work demand (psychological strain) and performance relationships. It is believed that certain situations of role clarity improve negative effects of work overload and psychological strain, while other studies cite that lack of role clarity makes employees spend maximum adaptive time and efforts to deal with conflict demands (Hannan & Jimmieson, 2006). The more an employee understands his or her job and how the job contributes to the overall organization, the better they will be able to make decisions on their own, making them confident in their work (Bliese & Castro, 2000). Although an organization has the same policies and procedures, individuals and work groups may interpret policies and procedures differently. Workers work with different safety manners even though they have safety in their mind. It is suggested that this occurs because different work groups are exposed to varying levels of risk and form their own customs and practices (Cooper, 1998). In turn this will influence how safety is perceived, the way safety is managed and the emphasis placed on compliance (Cooper, 1998). Workers are passive in discussing the safety matters with the seniors and only talk to the seniors on the safety matter only when problems occurred or nearly occur (Nansubuga, Munene & Ntayi 2015).

Workers may still proceed with a work activity even after the existing unsafe condition was identified. The workers may also act unsafe regardless of initial conditions of the work environment. In an accident of Mirembe Arcade along Nasser Road in the central business area of Kampala, excavation works that were being conducted at an adjacent construction site forced the foundation of a nearby building to give way resulting in four fatalities and 20 injuries. Reports said that the engineer had not taken into consideration the horizontal and vertical forces around the building before starting on the foundation. Had he considered these forces he would not have built a foundation deeper than three meters. Eye witness reports said that builders at the adjacent site whose works had started three weeks earlier had ignored cries from people in the adjacent building that they had heard cracking sounds from the building, (Munene et al 2004). Also in 2021, a five-floor building that collapsed in Makindye, also in Kampala killed over 13 people due to the fact that the professional developers left the work to be done by unprofessional persons as soon as the plans for the building were approved. https://nbrb.go.ug/collapsed-makindye-building-that-killed-13-was-constructed-by-bricklayer/

Munene et al (2004), Johnson (1995) and Duvall (1999) indicated that increased role clarity among role holders makes them feel more psychologically empowered. Johnson (1995) stated that an empowered employee moves out those role stereotypes so that he/she can take initiative, assume power, act tenderly and compassionately and normally use intuition to balance his/her rationality. He further said that the best managed organisations have a conscious effort to empower their employees and this can only be achieved if the roles of job holders are accurately defined. Lan, Hu, & Nie (2025). said that an empowered employee is less risk-aversive and is more willing to suggest bolder solutions. Such employees are given more authority, autonomy and flexibility; they are encouraged to be more innovative and creative.

Empowered employees work hand in hand with management as a team and can take on greater responsibility with minimal instructions and supervision. Ulrich et al (1997) & Karkkola, Kuittinen & Hintsa (2019) stressed that such empowered employee will attract the superior's recognition, will be strategically credible and become an active role player in the business.

Individuals are unlikely to believe that they have the necessary skills and abilities to perform tasks adequately unless they have a clear sense of their responsibilities and how to achieve them. Spreitzer (1996) argued that creating clear goals, tasks and lines of responsibility improves empowerment in the work place. Role clarity increases intrinsic motivation to perform as it increases the expectations that effort will lead to performance and that performance will lead to outcomes (Tubre & Collins, 2002 & Tölli et al 2021).

Hasibuan et al (2025) noted that when workers are armed with clearly defined behavioural competences, clarity of roles is perceived and such well-equipped workers will make rational decisions that add a unique value to the organisation. The employee gets job satisfaction and becomes more committed to the organisational objectives. He/she, therefore, becomes strategically salient, more credible, highly recognised as valuable and relevant to the organisation (Hasibuan et al 2025).

Gaps in literature

Although there is a link between operant and emotional competence to role clarity, most studies are either descriptive or theoretical with limited empirical validation across the various dynamics of organisational structures. There is also limited literature that examines how competence profiling can be used to add to knowledge and also to informal workplace practices that influence employee clarity and safety related behaviours especially in high-risk work environments like engineering sites. There is also limited or lack of studies to explore how operant and emotional competence interventions sustainably influence role clarity and job performance over time. Although studies show that role clarity is discussed a lot in relation to job satisfaction and performance, there is little exploration of mediating roles of emotional competence like the leadership styles, organisational culture and technological advancement. Limited studies have been shown integrating operant and emotional competences and their combined impact on role clarity and their performance outcomes.

METHODOLOGY

A mixed methods approach which involves the adoption of both the quantitative and qualitative data collection methods was employed to collect data. Quantitatively, information was collected from different groups of respondents using a questionnaire. The respondents were those who had several job descriptions available from different organisations and on the internet, construction companies and organisations that employ engineers. More information about the job profile of building professionals was got qualitatively from interviews with different professionals ranging from consultants to apprentices. All this data was reduced to fit into a competence profile for a professional in the building industry and a questionnaire designed from it. The correlational design was used to establish relationships between the variables: operant competence, emotional competence and role clarity.

A total of 130 professionals in the building industry ranging from consultant engineers, civil engineers, site or construction supervisors and apprentices took part in the study and were selected using the snowball sampling technique. The identified building professionals were requested to recommend other professionals to fill in the questionnaires and also take part in the interviews.

The questionnaire was used to measure operant competences, emotional competences and role clarity using a four-point Likert scale ranging from strongly agree (5) to strongly disagree (1) to show the extent of presence or absence of the operant competences as identified by Goleman (1998) and Sande (2005). Reverse coding was also done to ensure that the respondents read the questions carefully and responded accurately. This was to avoid them from being biased by the statements in the Likert scale.

To test reliability of the instrument, the test-re-test reliability was obtained by administering the same test twice over a period of time to the respondents. The scores from the different times were correlated in order to evaluate the test for stability. The Cronbach's coefficient alpha test was used to establish that each of the sub sections in the questionnaire was a reliable measure for the variables of the study. Cronbach's alpha is a coefficient of reliability that is commonly used as a measure of the internal consistency or reliability of a psychometric test score for a sample of examinees (Cronbach, 1951).

Cronbach's alpha generally increases as the inter-correlations among test items increases. This is known as internal consistency estimate of reliability of test scores. Internal consistency ranges between zero and one. A commonly-accepted rule of thumb is that alpha of 0.6-0.7 indicates acceptable reliability, and 0.8 or higher indicates good reliability. Cronbach alpha values from the variables were above 0.6 as shown in the table 1 below. This means that the instrument was reliable to measure the variables for this research. To ensure validity of results, the content validity test was used to ensure the instruments collect information of all relevant aspects of the concepts being measured.

Table 1: ***Reliability coefficient***

Variable	Cronbach's Alpha Value
Operant Competences	0.96
Emotional Competences	0.93
Role clarity	0.61
Climate of Occupational Health and Safety	0.91

Source: Primary data, 2025

FINDINGS AND ANALYSIS

The study constituted of 21% females and 79% males. This implies, there were more males than females as the building industry and profession is still considered a male occupation and the female penetration into this industry. This also implies that the responses from the males may not be gender-sensitive and specific when it comes to work.

The respondents' ages ranged from 20 to 59 years. The biggest percentage of respondents was between the ages of 20 and 39 years. This group of respondents represented the young able bodied and willing to work group, most of who had recently acquired the necessary academic qualifications to be permitted to work in the construction industry. This implies that the respondents are able to build more capacity and develop their skills in the industry.

At least 3.7% of the respondents had a certificate, 16.9% had a diploma, 64% had an undergraduate degree and 15.4% had a post-graduate degree. These professionals were from different types of organisations with 22% from parastatals or other government bodies, private sector constituted 63% and 14.7% from non-governmental organisations including such organisations as the United Nations. The highest population was from the private-sector as the private sector is the biggest employer in Uganda. This implies that the private-sector is able to influence the faster adoption of technologies and are more performance driven as compared to those in the public sector.

Pearson's Correlation Results

The Pearson's correlation test was used to test the hypotheses; there is a relationship between operant competences and role clarity, there is a relationship between emotional competences and role clarity and there is a relationship between role clarity and safety climate.

Table 2: ***Summary of Pearson correlation for the Key Study Variables***

	Operant Competence	Emotional Competence	Role Clarity	Safety Climate
Operant Competence	1			
Emotional Competence	0.41**	1		
Role Clarity	0.08	0.07	1	
Safety Climate	0.43**	0.55**	0.10	1

** Correlation is significant at the 0.01 level (2-tailed).

Source: Primary data

Hypothesis 1: There is a relationship between operant competences and role clarity.

Results indicate that there is no relationship between operant competences and role clarity ($r=0.08$, $p<0.01$). This means that the level of operant competences of professionals in the building industry is not influenced by the level of clarity they possess. Therefore, the knowledge and skills competences one possesses will not influence his or her level of understanding of his or her role. In this case the hypothesis was rejected.

Hypothesis 2: There is a relationship between emotional competences and role clarity.

Results indicate that there is no relationship between operant competences and role clarity ($r=0.06$, $p<0.01$). This means that the level of emotional competences professionals in the building industry is not influenced by how clear building professionals are of their roles. In this case the hypothesis was rejected. Therefore, the personal characteristics that comprise the emotional competence do not influence role clarity.

Hypothesis 3: There is a relationship between role clarity and safety climate.

Results indicate that there is no relationship between role clarity and safety climate ($r=0.10$, $p<0.01$). This means that the level of clarity of professionals in the building industry does not influence the perception towards climate of occupational health and safety. It implies that even though the professionals in this industry clearly understand their role expectations, their level of clarity will not influence engagement in safe behaviours. These professionals at times feel that safety processes slow down their work speed (Wright, 1986) putting them behind on their roles. In this case the hypothesis was rejected.

Hypothesis 4: There is a relationship between operant competences and safety climate.

Results indicate that there is a significant positive relationship between operant competences and safety climate ($r=0.43$, $p<0.01$). This means that the higher the knowledge and skills one possesses and uses in appropriate ways on the job, the more favourable the climate of occupational health and safety. Operant competences strongly influence the environment in which professionals in the building industry operate (Munene et al., 2004). In this case the hypothesis was retained.

Hypothesis 5: There is a relationship between emotional competences and safety climate.

Results indicate that there is a significant positive relationship between emotional competences and safety climate (r=0.55, p<0.01). This means that the more emotionally competent professionals in the building industry are, the more likely they are to act transparently and to investigate their own mistakes with integrity (Williams, 1994). In this case the hypothesis was retained.

Analysis of Variance (ANOVA)

Analysis of Variance was carried out to establish the difference in perceptions of the various demographic variables on the independent variable. The basis for interpretation of the level of significance was significance is equal to or less than 0.05. The corresponding magnitude of the mean scores is then used to assess which particular group has evaluated the variable more positively or negatively.

Table 3: ***Operant Competences, Emotional Competences, Role Clarity, and Safety Climate by Type of Organisation***

Type of Organisation		Operant Competence	Emotional Competence	Role Clarity	Safety Climate
Parastatal	Mean	1.66	1.83	2.63	2.25
	N	30	30	30	30
Private	Mean	1.65	1.69	2.55	2.16
	N	83	83	83	83
NGO	Mean	1.45	1.74	2.72	2.07
Safety Climate	N	17	17	17	17
Df		2	2	2	2
F		2.04	1.31	2.81	1.17
Sig.		0.13	0.27	0.06	0.31

Source: Primary data, 2025

Respondents from different types of organisations did not differ significantly in their rating of the variables; operant competences (F=2.04 p= 0.13), emotional competences (F=1.31 p= 0.27), role clarity (F =2.81 p= 0.06) and safety climate (F=1.17 p= 0.31). This could be because the same kind of work is done across the different types of organisations and the same expectations are set for all building professionals. Regardless of where they work, engineers need to acquire the basic operant competences from school which they use in their organisations of employment. The work demands of an engineer do not differ regardless of the type of organisation where the engineer works.

Table 4: **Operant Competences, Emotional Competences, Role Clarity, and Safety Climate by Sex of the respondents**

Sex		Operant Competence	Emotional Competence	Role Clarity	Safety Climate
Female	Mean	1.58	1.79	2.53	2.18
	N	25	25	25	25
Male	Mean	1.64	1.71	2.60	2.17
	N	105	105	105	105
Df		1	1	1	1
F		0.5	0.7	1.3	0
Sig.		0.49	0.42	0.26	0.91

Source: Primary data, 2025

Respondents from different gender did not differ significantly in their rating of all the variables; operant competences (F=0.5 p= 0.49), emotional competences (F=0.7 p= 0.42), role clarity (F=1.3 p= 0.26), and safety climate (F=0.00 p= 0.91). This is probably because all employees whether male or female are given the same roles and responsibilities at work and perform them to the same level of satisfaction.

Table 5: ***Operant Competences, Emotional Competences, Role Clarity, and Safety Climate by highest level of education of the respondents***

Education Level		Operant Competence	Emotional Competence	Role Clarity	Safety Climate
Certificate	Mean	2.11	2.31	2.52	2.69
	N	5	5	5	5
Diploma	Mean	1.54	1.62	2.60	2.04
	N	20	20	20	20
Degree	Mean	1.63	1.70	2.57	2.14
	N	84	84	84	84
Post-graduate qualification	Mean	1.58	1.79	2.68	2.27
	N	21	21	21	21
Df		3	3	3	3
F		3.2	3.8	0.9	3.9
Sig.		0.02	0.01	0.44	0.01

Source: Primary data, 2025

Respondents of different education levels differ significantly in their rating of three of the variables; operant competence (F = 3.2 p= 0.02) emotional competence (F = 3.8 p= 0.01), and safety climate (F = 3.9 p= 0.01). They however did not differ on role clarity (F =0.9 p= 0.44). This is because the higher the qualification level of a professional possess, the higher ones operant competence and emotional competences the higher the level of responsibility. They however did not differ on the role clarity since job and therefore roles are distributed as per qualification and operant competence.

Table 6: **Operant Competences, Emotional Competences, Role Clarity, and Safety Climate by time spent in the organisation of the respondents.**

Time spent with the Organisation		Operant Competence	Emotional Competence	Role Clarity	Safety Climate
Less than 1 year	Mean	1.59	1.63	2.56	2.14
	N	45	45	45	45
1 - 2 years	Mean	1.65	1.78	2.59	2.13
	N	26	26	26	26
2 - 4 years	Mean	1.71	1.86	2.53	2.21
	N	28	28	28	28
4 - 6 years	Mean	1.60	1.72	2.77	2.17
	N	14	14	14	14
6 - 8 years	Mean	1.51	1.65	2.57	2.19
	N	6	6	6	6
8 - 10 years	Mean	1.67	1.85	2.49	2.23
	N	4	4	4	4
10+	Mean	1.56	1.64	2.76	2.27
	N	7	7	7	7
DF	Mean	6	6	6	6
F	N	0.4	1	1.7	0.2
Sig	N	0.86	0.40	0.12	0.98

Source: Primary data, 2025

Respondents with different years of service did not differ significantly in their rating of any of the variables; operant competences (F=0.40 p= 0.86), emotional competences (F=1 p= 0.40), role clarity (F=1.7 p= 0.12) and safety climate (F=0.2 p= 0.98). This is probably because all employees regardless of their age were given the same roles and responsibilities at work and were expected to perform them to the same level of satisfaction.

RESULTS AND DISCUSSION

The relationship between Operant Competence and Role Clarity

The findings revealed that there is no relationship between operant competences and role clarity. This meant that the level of operant competences possessed by professionals in the building industry was never influenced by the level of clarity they possess. In this case the hypothesis was rejected. However, the literature available indicates that the application of operant competences increases role clarity among the role holders because the operant competences guide the role holder on what to do (Munene et al., 2004). When the role holder is aware of what they are supposed to do, they acquire the capacity to evaluate the effectiveness of the tasks they carry out. The application of operant competences leads to role clarity. Each employee's role should be defined so that one is clear about one's role. The clearer the role expectations the better the individual is to predict how best to behave, which in turn reduces uncertainty associated with the work situation (Munene et al., 2004). The role holder gets an opportunity to experience reflective learning as he carries out the different tasks and deal with the demands of the environment.

According to Munene et al (2004), operant competences guide the job holder on what to do and provide opportunities and cognitive skills to learn more from other job holders and from their work experiences. Munene et al (2004) further argued that the operant competence model tries to derive behavioural competences that aim at role clarity. This could lead to improving overall performance of role holders and the organisations. Role ambiguity exists when the role incumbent is uncertain about the scope of responsibilities required of him/her that may not be clearly articulated in terms of behaviours necessary to fulfil the activities or tasks (Bauer & Spencer, 2005; Munene et al., 2004).

Research on the Safety Attitudes, Safety Climate, and Employee Health among Older and Younger Workers Working at Height in Construction Industry: A Facet Approach found that most of the respondents think that accidents are sometimes inevitable. Although many regulations have been set-up and aimed at reducing the occurrence of occupational injuries and employers have done so much on safety, the workers' remissness on safety matter accounts for the cause of occupational injuries most. The respondents were quoted to have said, "some workers do not wear their safety belts which might hamper, they think, their work..." it is obvious that the management and supervisors cannot look at them all the times, the workers need to take care of safety in their work and follow the safety regulations unprompted" (Chan et al., 2006).

They were also quoted to say "Safety equipment can make the workers safe at work but they perceive that the safety equipment is only an inconvenience. They only use it when safety officers, supervisors or management are inspecting them. The main causes of accidents/ injuries among workers are due to the fact that workers do not follow the rules of safety, and the remissness of the line management. Moreover, insufficient knowledge on the importance of safety equipment is one of the reasons for the refusal of safety equipment. Concerning organisational role, most of them expressed that safety professionals and supervisors should take up the responsibility of imparting safety knowledge and safety regulations.

Gist and Mitchel (1992) argue that individuals who possess information that increases their understanding of task attributes, complexities and task environments, strengthen their perception of competence. Hall (2004) argues that uncertainty (role ambiguity) about the expectations of a work role can lead to tension, anxiety, fear, anger and hostility. These feelings decrease an individual's satisfaction with their role. Role ambiguity exists when the role incumbent is uncertain about the scope of responsibilities required of him/her that may not be clearly articulated in terms of behaviours necessary to fulfil the activities or tasks (Bauer & Spencer, 2005; Munene et al., 2004).

In an early study examining accidents at sea, Wagenaar and Groeneweg (1987) found that time pressure, the push for production and short-cutting safety processes significantly contributed to accidents. Similarly, in his analysis of deaths on rigs, Wright (1986) found that pressure to speed up work and to complete tasks as quickly as possible were also significant dangers in the work place. Hoffman et al (1995) also argued that the push for production outweighed the motivation and expectation to behave safely. Mugabi (2022) revealed that many of the subjects in his study felt that there was simply not enough time to follow safety procedures.

The relationship between Emotional Competences and Role Clarity

The findings revealed that there is no relationship between emotional competences and role clarity ($r=0.07$, $p<0.01$). This means that the level of emotional competences possessed by professionals in the building industry is not influenced by how clear building professionals are of their roles. In this case the hypothesis was rejected. Emotional competences are input and greatly depend upon the individual's personal characteristics rather than output which focuses on the task. The dependence upon personal characteristics to carry out a task makes it difficult to know what is expected of the individual because each individual is bound to react differently. Persons who are high in safety knowledge will also be more safety motivated, resulting in a larger positive effect on safety performance thus using safe equipment, employing safety rules and choosing safe working methods. People are more likely to act transparently and to investigate their own mistakes with integrity when they feel psychologically safe (Williams, 1994). It increases employees' effectiveness in the give-and-take of emotional information, straightforward handling of difficult issues, listening well and sharing information fully, and staying receptive to bad news as well as good (Goleman, 1998b).

The Construction Worker Research Group (1998) explained the effects of human factors, which are involved when the causes of accidents are attributed to the failure of an individual to act promptly to avoid it. The accidents were not necessarily caused directly by the victims, but may result from the lack of action or the use of inappropriate action by any one person in the activities leading up to the accident. Cohen and Lin (1991) found out that the falls from ladders are due to the workers not wearing personal protective devices (e.g., fall arresters), and not properly securing the top section of an extension ladder which slid down while the injured employee was on it.

According to research carried out by (Chan et al., 2006), "Fatigue/ Exhaustion" was identified as the most influential person factor of fall accidents, which accounted for one-third (33%) of fall injuries. If workers become tired, they may not be physically fit to handle the construction work, which requires intense attention on safety issues. Otherwise, accidents may result because of a lack of energy to remain balanced in carrying out the work at height. "Carelessness" and "Incorrect attitude/ motive" collectively accounted for nearly half of the fall injuries (25% and 23% respectively). These personal factors can lead to such unsafe actions as adopting unsafe position and posture, and the lapse of attention (Chan et al, 2006).

The personal factors are closely related to the mindset of the workers. It is therefore important that managers consider that any changes made to the operations of a business, will have an impact on workers perceptions. As Zohar (1980) points out 'these perceptions have a psychological utility in serving as a frame of reference for guiding appropriate and adaptive task behaviour'.

CONCLUSION AND RECOMMENDATIONS

Conclusions

The study established that both operant competence and emotional competence definitions are key to the performance of professionals in the building industry as they had a significant positive relationship with safety climate. These findings can inform the building industry planners and regulators on how to enhance safety further and promote a higher sense of responsibility among the workers. The clearer the role expectations the better the individual is to predict how best to behave, which in turn reduces uncertainty associated with the work situation (Munene et al., 2004). It is very important to enhance the ability of the workers and the managers to anticipate possible hazards in the work place.

Persons who are high in safety knowledge will also be more safety motivated, resulting in a larger positive effect on safety performance thus using safe equipment, employing safety rules and choosing safe working methods. People are more likely to act transparently and to investigate their own mistakes with integrity when they feel psychologically safe (Williams, 1994). It increases employees' effectiveness in the give-and-take of emotional information, straightforward handling of difficult issues, listening well and sharing information fully, and staying receptive to bad news as well as good (Goleman, 1998b).

However, role clarity was found to have no relationship with all the study variables that were operant competence, emotional competence and safety climate and therefore role clarity did not influence the perception of safety or influence the emotional competence.

Recommendations

The study results derived from the correlation coefficient show that operant competences and emotional competences are significant predictors of safety climate. The following recommendations can be drawn in light of the study objectives and findings from the discussion above;

There being a positive relationship between operant competences and safety climate, and emotional competence and safety climate, the Ministry of Works and Transport and the Ministry of Lands, Housing and Urban Development are encouraged to design, develop and set mandatory training for all professionals in the building industry. This training should be diverse to cover several roles of professionals in the building industry as their roles are diverse and therefore the need for safety is cross cutting.

The Ministries is encouraged to set supervisory requirements for all professionals in the building industry discouraging the use of disguised, incompetent or ill experienced building professionals who are unclear about their role expectations therefore building the competence of the building professionals and ultimately their attitude towards safety.

The Ministries is also called upon to identify and recognise organisations and or individuals who promote safety as a means to encourage and develop a climate of safety. Such recognition could be through giving out of safety awards or recognising organisations as safety giants.

Further research is required in the field of operant competence, emotional competence, role clarity and climate of occupational health and safety as the study only covered two districts in Uganda. More research is required to substantiate the relationship between role clarity and safety climate as role clarity was not found to predict safety climate.

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