



Exploring the interplay between Quantity Surveyors' Conflict-handling Styles and Personality Traits

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Abstract

Construction projects are prone to conflict; thus, effective conflict management is more important than ever to avoid disputes and ensure project success. This study explores the link between conflict-handling styles and personality traits used by clients' quantity surveyors in South Africa. The study used an online web survey based on how clients' quantity surveyors dealt with conflict according to their personality traits. The population of this study included registered professional quantity surveyors and candidate quantity surveyors. The most common way of dealing with conflict and the most dominant personality trait among quantity surveying professionals were determined using descriptive statistics. A Spearman rank correlation analysis was subsequently conducted to establish whether there was a link between management of conflict and personality traits. The collaborating style was primarily used as a conflict management style by quantity surveyors, while the most common personality trait amongst client's quantity surveyors was Conscientiousness. Generally, most of the conflict-handling styles do not significantly interplay with personality traits. However, a collaborating conflict-handling style was found to have a negative correlation with the neuroticism personality trait. Also, the accommodating conflict handling style positively correlates with the agreeableness personality trait, and the avoiding conflict handling style correlates with the neuroticism personality trait. Quantity surveying firms will benefit from this information regarding their employees' conflict-handling styles and personalities by training professionals on managing conflict successfully by combining their personalities with the appropriate style. The focus on registered and candidate quantity surveyors was a limitation of the study, as other construction professionals could add value to the study. Further studies may include conflict-handling styles from a contractors' quantity surveyor's perspective.

Keywords: Conflict-handling styles, Construction Industry, Personality, Quantity Surveyors

1. Introduction

The Association of Arbitrators (Southern Africa) administered 571 dispute cases between 2017 and 2020. Construction projects are prone to conflict; thus, effective conflict management is more critical than ever to avoid disputes and ensure project success. Conflict is defined by Rauzana (2016: 44) as occurring when the values or goals that must be achieved differ, both individually and in relation to others. According to Sudhakar (2015: 215), the existence of conflict is determined by individual perception. To successfully resolve conflict, parties must be open-minded and flexible in their thinking to reach long-term mutual gain rather than short-term personal

gain. These solutions imply that there will be a mutual benefit for all parties, reducing the possibility of conflict.

Rauzana (2016: 44) referred to the construction industry as a complex and competitive environment, bringing together members with various opinions, skills and knowledge of construction work. Conflict is inevitable since these differences exist in perception and goals among partners on a construction project (Akiner, 2014: 1039). Furthermore, the construction industry frequently poses a hostile environment due to the competitive delivery method commonly employed. Contractors, on the one hand, are often expedient in terms

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of recovering costs, while clients, on the other hand, are unwilling to compensate contractors for legitimate claims (Assaf *et al.*, 2019: 598). When the various parties, with possibly conflicting goals, participate in a project, they are required to prioritise their interests and benefits since the industry is characterised by risk and uncertainty and highly competitive (Akiner, 2014: 1040). However, this approach provides the catalyst for continued conflict during a project.

The stakeholders' performance, namely the client, the design team and the contractors, is negatively affected by the conflicts and disputes on construction projects (Khahro & Ali, 2014: 116). Ultimately, conflict affects a project's outcome if not adequately managed. However, McKibben (2017: 102) contends that conflict has a positive outcome if it is managed effectively since it has the potential to stimulate and encourage change where the team has become stagnant in its functions, in addition to increasing productivity, improving decision-making and inspiring critical thinking to find solutions to previously unidentified problems.

Several variables determine the successful outcome of a construction project, one of which is how the building team approaches conflict regarding a project (Ntiyakunze, 2011: 67). According to Desivilya *et al.* (2020: 30), conflict management refers to behaviours the team members employ to deal with both their natural and perceived differences. Some of these differences arise from emotions and relationships, while others address more functional issues during conflict management; the negative impact of conflict in an organisation is minimised while its positive aspects are enhanced (Maiti & Choi, 2018: 2). Five conflict-handling styles can be employed to manage conflict: collaborating, compromising, avoiding, competing and accommodating (Rahim, 2002: 216). According to the contingency view of conflict, these strategies determine how constructive conflict can be, which is determined by the conflict management strategies employed (Chen *et al.*, 2012: 157).

Managing and resolving conflict effectively can be beneficial (McKibben, 2017: 101). This relies on transparent communication between parties, active listening, and mutual respect. In addition, both parties should clearly understand what they regard as the focus of the conflict. Increased conflict can be prevented by identifying the signs thereof, after which resolutions can be determined.

Personality traits are the most critical factor in managing disagreements (Ahmed *et al.*, 2010: 268). The "Big Five" personality model consists of five traits: Conscientiousness, Extroversion, Openness, Agreeableness, and Neuroticism. Ayun *et al.* (2017: 673) define Conscientiousness as self-control and achievement orientation, openness as being intellectual and creative, extraversion as stimulation-seeking, Agreeableness as friendliness, and Neuroticism as a tendency towards nervousness and misery. Project team members often lack the knowledge and people skills to address conflict situations in their projects successfully. Excellent conflict-handling skills depend on managing personal

emotions and will not usually result in negative emotions that cause dysfunctional project outcomes (Ann & Yang, 2012: 1021).

While limited information is available regarding quantity surveyors' conflict-handling styles, it is essential to identify the conflict-handling styles of quantity surveying professionals and examine the personality traits that affect their choices of conflict-handling styles. The quantity surveyor is responsible for managing payments and negotiations with contractors and, therefore, plays a vital role in handling conflict with contractors to ensure the project's success.

2. Literature Review.

The following section critically reviews the strategies for dealing with conflict and the various personality traits. The effect of personality on conflict-handling styles is also explored.

2.1 Conflict-Handling Styles

Managing conflict in construction companies is so critical that no firm would deny its crucial impact on their successful operation (Coleman & Kugler, 2014: 963). Successful conflict management minimises the negative impact of conflict in an organisation. At the same time, positive aspects are enhanced (Maiti & Choi, 2018: 2). People have various behavioural instincts and intuitions that affect how they manage conflict. These are known as conflict-handling styles. Models for dealing with conflict are determined through various techniques that individuals or leaders may adopt when interacting with peers or subordinates in organisations, in contrast to social or business relationships (Yang *et al.*, 2015: 68).

Many models of handling interpersonal conflict range from two to five styles. Rahim's model of five conflict-handling styles has proven most useful in research since the model differentiates the styles of handling conflict into two components: assertiveness (self-concern) and cooperation (concern for others). Figure 1 shows various conflict management styles that can manage conflict, namely, collaborating, compromising, avoiding, competing and accommodating (Rahim, 2002: 216).

2.1.1 Collaborating style

The collaborating style, namely a high level of cooperation and assertiveness, is associated with problem-solving, such as diagnosing and intervening with the correct solutions (Rahim, 2002:218). This style is identified by a preparedness to exchange information, deal with differences constructively, and be determined to find a mutually acceptable outcome for both parties, according to Özkalp *et al.* (2009: 423). Because the relationship is important, as well as mutual satisfaction and the improvement of the project performance, the antagonism must be reduced and commitment obtained from both sides (Lu & Wang, 2017: 1485).

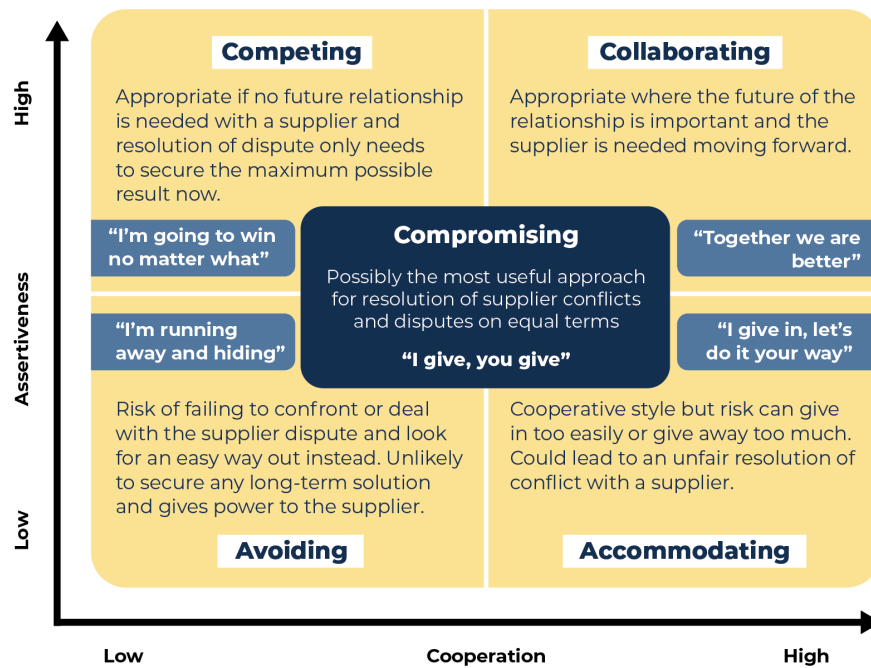


Figure 1: Conflict management styles

Source: Rahim (2002)

2.1.2 Accommodating style

According to Özkalp *et al.* (2009: 424), the accommodating style is characterised by a high level of cooperation and a low level of assertiveness. The focus is on preserving relationships rather than satisfying individual needs. This style works well when one party is willing to sacrifice something in exchange for some benefit from the other party. This style would also be employed when one person occupies a position of weakness or values the relationship more than achieving the desired goal (Rahim, 2002: 220).

2.1.3 Competing style

The competing style is characterised by a low level of cooperation and a high level of assertiveness. It involves one party imposing their views on the other and gaining at the expense of the other's loss. It is known as a win-lose situation (Lu & Wang, 2017: 1485). The competing style is appropriate when an unfavourable decision is taken by one party, which may be detrimental to the other party involved or where the other party does not have the necessary experience in making technical decisions (Rahim, 2002: 220). This style is also valuable for implementing unpopular courses of action or when a quick decision is required. However, when conflict issues are complex with both parties equally influential, using this style by either party may lead to a standoff. A deadlock may be reached unless either party changes its strategy (Rahim, 2002: 220).

2.1.4 Avoiding style

The avoiding style, characterised by a low level of cooperation and assertiveness, has been associated with removing or avoiding certain situations of possible

conflict. Rahim (2002: 220) stated that this style is useful in minor conflict matters or when a moratorium period is required before a complicated problem can be dealt with effectively. Furthermore, the style is appropriate when the potentially negative results of confrontation are more significant than the benefits of resolving the conflict. However, this style is inappropriate when a decision has to be made or when an immediate decision is required (Rahim & Bonoma, 1979: 1327).

2.1.5 Compromising style

The compromising style, regarded as an intermediate level of cooperation and assertiveness, is applicable where both parties are prepared to concede to reach a mutually acceptable decision (Rahim, 2002: 220). This style is useful when both parties have the same status and cannot reach a consensus (Özkalp *et al.*, 2009: 424). This style is unsuitable when dealing with complicated problems as it fails to identify the real issues or formulate effective solutions (Rahim, 2002: 221).

2.2 Personality Traits

The response to conflict usually depends on a person's personality, training and experience (annbayo, 2013: 142). Personality traits are crucial in managing conflict (Ahmed *et al.*, 2010: 268). The "Big Five" personality model, also known as the Five-Factor model, consists of five traits: openness, Conscientiousness, Extroversion, Agreeableness and Neuroticism, as illustrated in Figure 2.

2.2.1 Openness

The personality trait of openness is associated with being imaginative and non-conformist. It could lead to a direct, aggressive attitude towards conflict, which could benefit conflict resolution (McCrae & Costa, 1997: 512).

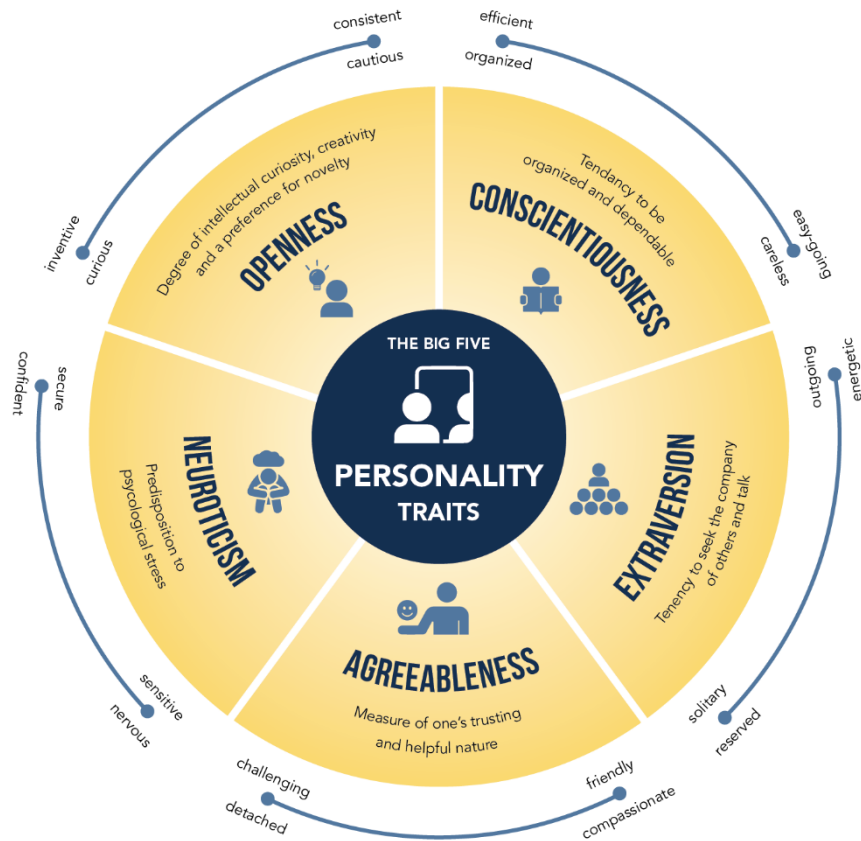


Figure 2: The Big Five personality model

Source: McCrae & Costa (1997)

This trait reveals how complex an individual's mental and experiential life can be. It relates to the varying degrees of people's range of interests, imagination, creativity and willingness to consider new ideas (Ome, 2013: 5514). Openness marks open-mindedness and reflectivity in individuals, resulting in higher divergent thinking to create innovative solutions.

2.2.2 Conscientiousness

The trait of Conscientiousness is classified as someone with impulse control, task orientation, and responsibility. Such a person can be expected to be disciplined, dutiful, and a high achiever (Ome, 2013: 5514). People who exhibit this trait are known for their sense of responsibility, dependability, diligence, and high organisation (Anwar *et al.*, 2012: 3731). Conflict among colleagues due to this personality trait could result from differing lifestyles, habits and work ethics.

2.2.3 Extroversion

According to Anwar *et al.* (2012: 3730), the extroverted trait is related to being sociable, assertive, energetic, talkative, enthusiastic, and ambitious. Such people desire to be wealthy and enjoy high levels of status, power and recognition. Extroversion relates to individuals who prefer working with people in groups, are decisive, and

are more able to communicate their opinions in an influential way (McCrae & Costa, 1987: 512).

2.2.4 Agreeableness

The preferences can characterise Agreeableness for cooperation instead of competition (McCrae & Costa, 1987: 512). This trait describes those who are considered to be good-natured, understanding, forgiving, cooperative and trusting as opposed to being suspicious and antagonistic toward others (Ome, 2013: 5514).

2.2.5 Neuroticism

Neuroticism is characterised by emotional instability and negative affectivity (McCrae & Costa, 1987: 512). Neurotic persons repeatedly exhibit negative emotions, affecting their personal relationships and escalating conflicts with others (Anwar *et al.*, 2012: 3731).

2.3 Personality Effects On Conflict-Handling Styles

A study conducted by Ejaz *et al.* (2012: 35), which investigated the connection between how conflict is managed and personality characteristics, revealed that the collaborating and accommodating approaches to conflict handling were positively correlated with being open, agreeable and conscientious. On the other hand, the

compromising and competing conflict styles had a positive link to being open and extroverted.

Anwar *et al.* (2012: 3730) examined the connection between personality and interpersonal conflict and tested an individual's concept of temporary personality transformation. Their study showed that being an extrovert is linked to and a prediction of interpersonal conflict. Extroverts' assertiveness and forcefulness lead to their always wanting to be dominant; therefore, their handling of conflict situations tends to be effective but autocratic, thereby increasing interpersonal conflict. The relationship between extraversion and interpersonal conflict is mediated by Conscientiousness, while Neuroticism moderates the relationship between Conscientiousness and interpersonal conflict.

Ayub *et al.* (2017: 674) examined the role played by personality characteristics in determining conflict, deliberating the moderating relationship between personality and performance through the ways of managing conflict. Extroverts use collaborating, accommodating, compromising, and avoiding conflict-handling styles. These findings contradict the results of the study by Anwar *et al.* (2012: 3730), who suggest that extroverts use competing styles. Performance is directly and positively impacted by conscientious, open and emotionally stable people. However, interactions between conflict and conflict management styles determine the correlation between personality traits and performance (Ayub *et al.*, 2017: 674).

3. Methodology

This section will discuss the methods used for identifying, selecting, processing, and analysing information regarding the relationship between personality characteristics and conflict-handling styles amongst quantity surveyors.

3.1 Paradigm

The researcher was independent of that being researched; the study was highly structured and used a scientific method to determine the relationship between observable and measurable facts objectively. Therefore, the epistemological basis of this research is grounded on empirical knowledge, while the ontological basis is objectivism. The positivism paradigm is determined by using deductive logic, formulating hypotheses and their testing, and suggesting operational definitions to explain questions and make projections based on measurable outcomes—the research aimed to develop generalised findings from experimentation and structured observations of reality. Therefore, the philosophical stance of the study was grounded in positivism.

3.2 Research design

This study used the deductive approach, an online survey, a mono-method research choice, and a cross-sectional time horizon to investigate how the client's quantity surveyors manage conflict, identify their personality traits and examine the effect of their personality on their choice of conflict handling style. A pilot questionnaire

was designed and distributed to twelve registered professional quantity surveyors to ensure its viability. The pilot questionnaire received no suggestions for amendments.

The online questionnaire was divided into four sections. The first section relates to the participants' demographic information; the second and third sections comprised Likert-scale-response questions pertaining to the research literature to establish the causes of conflict and Rahim's five conflict-handling styles. The fourth section investigated the participants' personality traits using scaled-response questions.

The online questionnaire was designed using QuestionPro to have a simplistic layout and appearance. The main benefits of using QuestionPro are the professionally pre-constructed survey templates and sharing of the survey with the target population, which can be done in various ways, either online or offline, as well as top-grade security, ensuring compliance and anonymity.

3.3 Data collection methods

Probability sampling is primarily used in quantitatively oriented studies. It involves random sampling, which means each unit in a clearly defined and accessible population stands an equal chance of inclusion in the sample. Stratified sampling, on the other hand, refers to the researcher's division of the population into subgroups. Each unit belongs to a single stratum, for example, low, medium or high levels of conflict, and then units from those subgroups are selected (Teddlie & Yu, 2007: 79).

The target population of 1175 were registered professional quantity surveyors and candidate quantity surveyors, all members of the Association of South African Quantity Surveyors (ASAQS) and employed by a professional quantity surveying firm. From the 68 questionnaires received, only 66 duly completed questionnaires were used, representing a response rate of 5.6%.

The ASAQS was requested to upload a link to the online questionnaire to their website. After the initial upload of the survey on their website, the survey was included in the weekly ASAQS newsletter, *The Weekend Property and Construction News*, for the following five weeks. The data was retrieved and converted into a spreadsheet for analysis and interpretation.

3.4 Data analysis

The data from the online survey was converted into a Microsoft Excel spreadsheet. The categories included respondents' demographic data, causes of conflict, conflict management strategies, personality characteristics, and the effects of personality on conflict management strategies. The collected data were analysed using descriptive statistical methods, such as the mean, mode, standard deviation and skewness. The mean values for the conflict management strategies and personality characteristics identified the most predominantly used management style for dealing with conflict and the most prevailing personality trait amongst quantity surveying professionals.

According to Phiri and Smallwood (2010), the mean score (MS) was calculated for all data and the value was compared to suit the relative range. The range relative to the MS is defined as follows:

- $> 4.20 \leq 5.00$ (Strongly agree)
- $> 3.40 \leq 4.20$ (Agree)
- $> 2.60 \leq 3.40$ (Neutral)
- $> 1.80 \leq 2.60$ (Disagree)

- $> 1.00 \leq 1.80$ (Strongly disagree)

Razali and Wah (2011) recommend the Shapiro-Wilk test to test normality for samples greater than 50. In addition, non-parametric tests are utilised where the p-value is below 0.05. The results of the normality tests are shown in Table 1, and all the variables show a p-value < 0.05 , confirming the use of a non-parametric test to measure the relationship between the variables.

Table 1: Normality results

Variable	Shapiro-Wilk Test Statistic	Sig.
Collaborating	0,663	<0.001
Accommodating	0,834	<0.001
Avoiding	0,851	<0.001
Competing	0,878	<0.001
Compromising	0,803	<0.001
Extroversion	0,507	<0.001
Agreeable	0,255	<0.001
Conscientiousness	0,526	<0.001
Neuroticism	0,755	<0.001
Openness	0,469	<0.001

Al-Hameed (2022) relays that Spearman's rank correlation test is important for determining the relationship between variables: conflict handling styles and personality traits. Furthermore, the r-coefficient was used to indicate the degree or strength of the types of relationships between conflict management strategy styles and personality traits, where $0 < r < 1$ indicates a positive association and where $-1 < r < 0$ indicates a negative association. Also, correlations were considered statistically significant if the p-value < 0.05 . According to Moore *et al.* (2013), the r-coefficient was interpreted using the following criteria for this study:

- $r < +/- 0.3$ = Very weak relationship
- $+/- 0.3 < r < +/- 0.5$ = Weak relationship
- $+/- 0.5 < r < +/- 0.7$ = Moderate relationship
- $r > +/- 0.7$ = Strong relationship

3.5 Reliability and validity of quantitative data

The extent to which the data collection techniques or analysis procedures will yield consistent findings is

known as reliability (Saunders *et al.*, 2009: 156). The research is considered reliable if an earlier research design can be replicated and the same results are achieved (Saunders *et al.*, 2016: 202).

A widely used measure of reliability in the social and organisational sciences is Cronbach's alpha (Bonett & Wright, 2014: 1). It describes the degree to which the items that comprise a scale measure the same primary attribute and indicates the average correlation of all the items that make up the scale.

The alpha coefficient can range between 0 and 1, where 1 = perfect internal reliability and 0 = no internal reliability. However, it is generally accepted that an alpha value between 0.70 and 0.95 indicates high data reliability. The Cronbach alpha test was used to determine the reliability of the data obtained from this study. The Cronbach alpha values for the conflict-handling styles and personality traits are illustrated below in Tables 2 and 3, respectively.

Table 2: Cronbach alpha values for conflict-handling styles

Conflict-Handling Style	Cronbach Alpha Value
Collaborating style	0.73
Accommodating style	0.83
Competing style	0.79
Avoiding style	0.80
Compromising style	0.76

Table 3: Cronbach alpha values for personality traits

Personality Trait	Cronbach Alpha Value
Conscientiousness	0.82
Openness	0.70
Neuroticism	0.84
Agreeableness	0.79
Extroversion	0.84

The use of the Cronbach alpha test adds to the study's methodological rigour and demonstrates that the scales used are consistent and reliable. A further notable strength of the methodology is a well-structured questionnaire that covers demographic information, conflict causes and handling styles, and personality traits, providing a comprehensive view of the research project. Using Likert-scale questions further adds to the precision of the data collection.

4. Results

4.1 Demographics

The majority of respondents were male (85%; n=66), older than 60 years of age (35%; n=66), with a Quantity Surveying Honours degree (62%; n=66), and between 21

and 25 years of work experience as a quantity surveyor (45%; n=66).

4.2 Conflict-handling style

The questionnaire included questions from Rahim's attitudinal survey. Using a five-point Likert scale, the survey respondents had to indicate whether they agreed or disagreed with each statement and to what extent. Table 4 shows the expanded analysis of conflict-handling styles to the degree to which the client's quantity surveyors employ a particular conflict-handling style when resolving conflicts with the contractors' quantity surveyors. Figure 3 indicates the predominantly conflict-handling style used by the client's quantity surveyors. The results were evaluated according to their mean scores.

Table 4: Expanded analysis of conflict-handling styles

Conflict handling styles	Statement	Mean	Interpretation
Collaborating	"I exchange accurate information with X to solve a problem together."	4.45	Strongly Agree
Collaborating	"I try to bring all our concerns to light so that the issue can be resolved in the best possible way."	4.29	Strongly Agree
Collaborating	"I try to work with X for a proper understanding of a problem."	4.14	Agree
Collaborating	"I try to investigate an issue with X to find the best solution acceptable to us."	4.14	Agree
Collaborating	"I collaborate with X to come up with decisions acceptable to us."	4.08	Agree
Collaborating	"I try to work with X to find solutions to problems that satisfy our expectations."	4.05	Agree
Collaborating	"I try to integrate my ideas with X to come up with a decision jointly."	3.97	Agree
Compromising	"I negotiate with X so that a compromise can be reached."	3.91	Agree
Competing	"I am generally firm in pursuing my side of the issue."	3.88	Agree
Compromising	"I try to find a middle ground to resolve a problem."	3.83	Agree
Compromising	"I usually propose a middle ground for breaking deadlocks."	3.59	Agree
Compromising	"I use 'give and take' so that a compromise can be made."	3.41	Agree
Competing	"I use my expertise to make a decision in my favour."	3.15	Neutral
Avoiding	"I try to keep my conflict with X to myself."	3.05	Neutral
Competing	"I sometimes use my power to win a competitive situation."	2.89	Neutral
Accommodating	"I usually allow concessions to X."	2.86	Neutral
Competing	"I use my influence to get my ideas accepted."	2.83	Neutral
Accommodating	"I generally try to satisfy the needs of X."	2.80	Neutral
Avoiding	"I try to avoid unpleasant exchanges with X."	2.76	Neutral
Avoiding	"I try to avoid disagreements with X."	2.71	Neutral
Accommodating	"I try to satisfy the expectations of X."	2.67	Neutral
Avoiding	"I try to keep my disagreement with X to myself in order to avoid hard feelings."	2.65	Neutral
Avoiding	"I usually avoid open discussion of my differences with X."	2.59	Disagree
Accommodating	"I often go along with the suggestions with X."	2.52	Disagree
Accommodating	"I usually accommodate the wishes of X."	2.35	Disagree
Competing	"I use my authority to make a decision in my favour."	2.33	Disagree
Avoiding	"I avoid an encounter with X."	2.21	Disagree
Accommodating	"I give in to the wishes of X."	1.80	Disagree

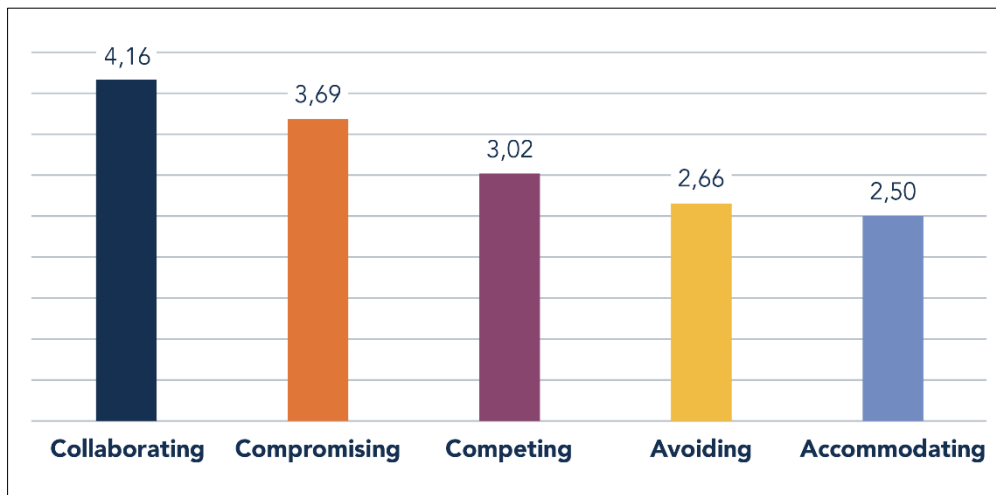


Figure 3: Predominant conflict-handling style used by the clients' Quantity Surveyor

The results revealed that the three famous conflict-handling styles of client quantity surveyors are the collaborating, compromising, and competing styles, with respective average mean values of 4.16, 3.69, and 3.02. Therefore, this study found that the client's quantity surveyors prefer collaborating to manage conflict with contractors' quantity surveyors. The collaborating style had a mean score of 4.16, which is high considering the compromising style's next highest score of 3.69.

This is an acceptable result, as the collaborating conflict-handling style is intended to minimise the pressure for both parties, thereby strengthening their mutual commitment, enriching the quality of their relationship and ensuring satisfactory project performance (Lu & Wang, 2017: 1485). This style is also the most beneficial for the construction industry as it demonstrates a mutual commitment to openly exchanging information and addressing differences constructively. This makes this style of handling conflicts suitable for more difficult situations (Özkalp *et al.*, 2009: 423).

4.3 Personality traits

Questions from the Big Five personality test were included in the questionnaire. Using a five-point Likert scale, the survey respondents had to indicate the extent to which they agreed or disagreed with each of the statements. Table 5 shows the expanded analysis of the personality traits of the client's quantity surveyors, and Figure 4 indicates the most prevailing personality traits amongst quantity surveying professionals. The results were evaluated according to their mean scores.

The results showed that quantity surveyors' top three personality traits are Conscientiousness, openness and Extroversion, with respective mean values of 3.19, 3.15, and 3.11. This result indicates that quantity surveyors' most dominant personality trait is Conscientiousness, with an average mean score of 3.19. Quantity surveyors need to possess this trait as Conscientiousness characterises someone with impulse control, task orientation, and responsibility. Such a quantity surveyor could also be expected to be self-disciplined, dutiful, and accomplishment-oriented (Ome, 2013: 5514).

Openness followed closely after Conscientiousness, with an average mean score of 3.15. The personality trait of openness is associated with being imaginative and non-conformist and having a direct, provocative attitude towards conflict, which could be useful in resolving conflict (McCrae & Costa, 1997: 512). This trait relates to the varying degrees of people's range of interests, imagination, creativity and willingness to consider new ideas (Ome, 2013: 5514). Openness is beneficial for quantity surveyors, and it will assist them in proactively and creatively managing conflict while keeping an open mind to consider new ideas.

4.4 Relationships between conflict-handling styles and personality traits

Table 6 shows the relationships between the conflict-handling styles and personality traits. While all other relationships were not significant, it is clear from the results that there is a significant relationship, where $p < 0.05$, between collaborating and Neuroticism ($p = 0.019$), between accommodating and agreeable ($p = 0.010$), and avoiding and Neuroticism ($p = 0.044$). The results further indicate that where a collaboration handling style is prominent, low Neuroticism is experienced as a personal trait. It further shows that in the case of an accommodating handling style, Agreeableness would be experienced as a strong personal trait, and with a prominent avoiding handling style, Neuroticism would be encountered as a strong personal trait.

The collaboration conflict-handling style that supports improved project performance (Lu & Wang, 2017) reasonably does not relate to professionals who are emotionally unstable and promote negative relationships (Anwar *et al.*, 2012). This combination is disastrous for successful project delivery. Quantity surveyors must effectively manage their traits by seeking intervention where negative traits have been observed—the accommodating conflict-handling style augers well with Agreeableness. Highly cooperative professionals (Ozkalp *et al.*, 2009) contribute to agreements amicably (Ome, 2013).

Table 5: Expanded analysis of personality traits

Personality traits	Statement	Mean	Interpretation
Conscientiousness	"I pay attention to details."	4.32	Strongly Agree
Conscientiousness	"I like order."	4.20	Strongly Agree
Conscientiousness	"I am always prepared."	4.05	Agree
Openness	"I am quick to understand things."	4.03	Agree
Extraversion	"I feel comfortable around people."	3.95	Agree
Conscientiousness	"I follow a schedule"	3.89	Agree
Conscientiousness	"I get tasks done right away."	3.80	Agree
Agreeableness	"I am interested in people."	3.80	Agree
Openness	"I spend time reflecting on things."	3.79	Agree
Agreeableness	"I sympathise with others' feelings."	3.79	Agree
Agreeableness	"I take time out for others."	3.76	Agree
Conscientiousness	"I am demanding in my work."	3.74	Agree
Agreeableness	"I make people feel at ease."	3.73	Agree
Neuroticism	"I worry about things."	3.73	Agree
Openness	"I have excellent ideas."	3.59	Agree
Agreeableness	"I feel others' emotions."	3.58	Agree
Openness	"I have a rich vocabulary."	3.56	Agree
Extraversion	"I start conversations easily."	3.56	Agree
Agreeableness	"I have a soft heart."	3.48	Agree
Openness	"I am full of ideas."	3.45	Agree
Extraversion	"I don't like to draw attention to myself."	3.45	Agree
Neuroticism	"I seldom feel blue."	3.36	Neutral
Neuroticism	"I am relaxed most of the time."	3.29	Neutral
Extraversion	"I am quiet around strangers."	3.26	Neutral
Openness	"I have a vivid imagination."	3.24	Neutral
Extraversion	"I talk to a lot of different people at events."	3.17	Neutral
Extraversion	"I don't talk a lot."	3.03	Neutral
Neuroticism	"I get irritated easily."	3.03	Neutral
Extraversion	"I don't mind being the centre of attention."	2.92	Neutral
Neuroticism	"I get stressed out easily."	2.86	Neutral
Openness	"I use difficult words."	2.85	Neutral
Extraversion	"I tend to keep in the background."	2.79	Neutral
Neuroticism	"I get upset easily."	2.79	Neutral
Neuroticism	"I am easily disturbed."	2.65	Neutral
Extraversion	"I am the life of the party."	2.53	Disagree
Openness	"I am not interested in abstract ideas."	2.44	Disagree
Openness	"I do not have a good imagination."	2.42	Disagree
Extraversion	"I have little to say."	2.42	Disagree
Neuroticism	"I often feel blue"	2.36	Disagree
Agreeableness	"I am not interested in other people's problems."	2.35	Neutral
Neuroticism	"I change my mood a lot."	2.35	Disagree
Conscientiousness	"I often forget to put things back in their proper place."	2.32	Disagree
Agreeableness	"I am not really interested in others."	2.26	Disagree
Conscientiousness	"I leave my belongings around."	2.23	Disagree
Agreeableness	"I feel little concern for others."	2.20	Disagree
Neuroticism	"I have frequent mood swings."	2.18	Disagree
Openness	"I have difficulty understanding abstract ideas."	2.17	Disagree
Agreeableness	"I insult people."	1.86	Disagree
Conscientiousness	"I make a mess of things."	1.71	Strongly Disagree
Conscientiousness	"I neglect my duties."	1.64	Strongly Disagree

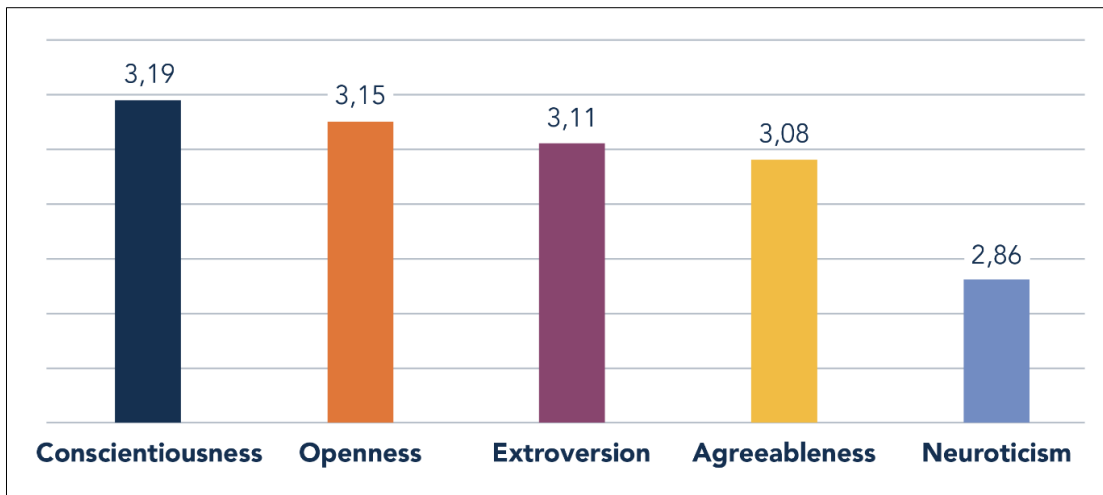


Figure 4: Personality traits

Table 6: Spearman's rank correlation results

Conflict-handling styles vs. Personality traits		Extroversion	Agreeableness	Conscientiousness	Neuroticism	Openness
Collaboration	Correlation	-0,004	0,057	-0,026	-0,288*	-0,146
	Coefficient Sig. (2-tailed)	0,977	0,651	0,834	0,019	0,243
Accommodating	Correlation	-0,006	0,317*	0,124	-0,069	0,220
	Coefficient Sig. (2-tailed)	0,962	0,010	0,320	0,580	0,076
Avoiding	Correlation	0,139	0,141	0,137	0,248*	0,216
	Coefficient Sig. (2-tailed)	0,267	0,259	0,274	0,044	0,081
Competing	Correlation	-0,010	-0,007	0,019	0,197	-0,013
	Coefficient Sig. (2-tailed)	0,935	0,955	0,878	0,112	0,916
Compromising	Correlation	0,125	0,053	0,104	-0,088	-0,034
	Coefficient Sig. (2-tailed)	0,315	0,673	0,405	0,482	0,787

It is imperative to reach a timely consensus on construction project conflicts, as delays may be detrimental to achieving set objectives. The avoiding conflict-handling style expectedly augers well professionals that have negative affectivity (McCrea & Costa, 1987). Avoiding conflict situations, unfortunately, leads to detrimental outcomes. Professionals who exude neuroticist personality traits must be identified, and interventions may be implemented to alleviate their negativity.

The results contradict the findings of an earlier study conducted by Ejaz *et al.* (2012), which shows that collaborating and accommodating conflict-handling strategies were correlated to openness, Agreeableness, and Conscientiousness. Also, the compromising and competing conflict management strategies were associated with being open and having extroverted personality traits. Cumulatively, the results show weak relationships and may need a larger sample size to confirm stronger relationships. However, the findings reveal some relationship concerns that need interventions at a broader scale within the construction industry.

5. Conclusions And Recommendations

The study's objectives were to determine the predominantly used conflict-handling style by quantity surveyors and their most dominant personality trait. Subsequently, the significant relationships between their personality characteristics and conflict management styles were analysed. The research determined that quantity surveyors predominantly employ a collaborating conflict-handling style when managing conflicts. In addition, quantity surveyors' most prominent personality trait was Conscientiousness. Furthermore, the findings indicated that a few personality traits weakly influence the client's quantity surveyors' conflict handling style. This outcome suggests that quantity surveying firms can capitalise on this information about their employees' conflict-handling styles and personalities by training professionals on utilising their personalities in conjunction with the right conflict-handling style to manage conflict successfully. Consequently, quantity surveyors with the right personality will be able to understand conflict better, recognise it more timeously,

and address differences more constructively to create a solution that will be acceptable to both parties.

Subsequently, the following recommendations are suggested:

- With most quantity surveyors implementing a collaborative conflict-handling style, it is advised that other professionals in the built environment also complement the collaborative style, resulting in mutually beneficial solutions and less conflict occurring in the future.
- Tertiary institutions should ensure the inclusion of conflict-handling approaches in the quantity surveying curriculum, preparing students concerning methods of managing conflict.
- Quantity surveying firms must implement effective human resources management to identify personality trait variances for timeous interventions.

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6. Limitations And Further Research

Limited studies were conducted on conflict management styles used in the quantity surveying profession. A further limitation of the study is that the study only focused on professional quantity surveyors. Including other professionals in the built environment might yield more comprehensive results about the industry's conflict-handling styles and personality traits. Further research is thus recommended on conflict management styles used by contractors' quantity surveyors that can contribute to improving project outcomes and relationships with other professionals. Further research could also be conducted on how conflict resolution approaches can be integrated into existing built environment curricula.

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