Gordon Institute
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Intrateam conflict and individual commitment: the roles of TMX and voice climate

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Abstract

Modern organisations increasingly use cross-functional, agile teams to complete complex tasks; however, without the moderating effects of traditional hierarchy, these teams are more prone to conflict and low commitment. Surprisingly, under the right moderating conditions, conflict is not always detrimental to team outcomes. This study proposes that by studying the relationship between conflict and commitment within teams, we can gain valuable insights into the conditions that determine how detrimental the conflict is and find ways to increase team members' commitment towards their groups.

The study quantitatively examined the relationship between the three types of conflict within these teams – task, process, and relationship conflict – and the affective commitment felt by team members. This relationship was assessed through two moderating conditions – team-member exchange (TMX) and perceived voice climate. Syndicate teams are widely used in postgraduate business school programmes to simulate the business environment and provide experiential learning. They have little formal hierarchy or power dynamics and frequently struggle with low commitment, social loafing, and conflicts during their tenure. Therefore, a survey of the experiences of 202 students who participated in syndicate teams at South African business schools was analysed using hierarchical linear regression to determine the relationships.

The findings indicate that all three types of conflict have a negative relationship with affective commitment, and of the three, task conflict has the least destructive relationship. The quality of the social exchanges between team members, TMX, was shown to play an important moderating role, reducing this negative relationship. However, while there is a direct positive relationship between the voice climate within the team and affective commitment, it was not found to play a moderating role. The study builds on our understanding of commitment and conflict within flat-structured teams and further highlights the importance of team member exchange as a construct.

Keywords

Intrateam Conflict, Affective Commitment, Voice Climate, Team-Member Exchange

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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List of Abbreviations

Abbreviation	Term
CFA	Confirmatory factor analysis
CI	Confidence interval
EFA	Exploratory factor analysis
GIBS	Gordon Institute of Business Science
GSB	Graduate School of Business
KMO	Kaiser-Meyer-Olkin Test for Sampling Adequacy
MBA	Master of Business Administration
OCB	Organisational Citizenship Behaviour
PGDip	Post Graduate Diploma
CP	Process Conflict
CR	Relationship Conflict
CT	Task Conflict
TMX	Team-Member Exchange
UCT	University of Cape Town
VIF	Variance Inflation Factor

Definitions of central terms

Throughout this document, the following definitions are used -

Definitions of Key Terms Used in the Study

Term	Definition
Affective Commitment	An individual's commitment to a team stemming from the "emotional attachment to, identification with, and involvement in, the organisation" (Allen & Meyer, 1990, p. 1).
Process Conflict	Intrateam conflict arising when there is disagreement over how and when work should be completed, for example, how the workload and roles are divided amongst the team members (O'Neill et al., 2013).
Relationship Conflict	Intrateam conflict stemming from perceived interpersonal incompatibility arising from personality clashes that result in feelings of anger, resentment, and animosity (O'Neill et al., 2013).
Social Exchange Theory	A theory that states that the interactions between individuals are reciprocal, where the resources received tends to initiate an obligation of repayment by the receiving party (Gouldner, 1960).
Task Conflict	Intrateam conflict arising from debates over divergences in opinions, perspectives and ideas about the team's tasks or work (O'Neill et al., 2013).
Team-member exchange (TMX)	A measure of the quality of the social exchange between team members (Seers et al., 1995).
Voice Climate	"The shared perceptions among group members of the extent to which their work group is encouraged to engage in voice behaviors." (Frazier & Bowler, 2015, p. 843).

1. Introduction to the Research Problem

Modern organisations use work teams to coordinate individuals' efforts to complete complex projects and cross-functional tasks that individuals cannot achieve alone (Nesterkin & Porterfield, 2016). These teams are increasingly required to be ambidextrous, being both efficient in the short-term and flexible to long-term change; to meet these complex requirements, teams within these organisations rely on flexible structures with less formal hierarchies and collective decision-making processes (Egelhoff, 2020). Where formal hierarchies are absent, roles and responsibilities must be agreed upon, and informal hierarchies may instead form based on social cues and biases (Jung et al., 2017).

These teams, often called agile teams in the software development industry (Grass et al., 2020), can improve team output by increasing team performance and engagement (Peeters et al., 2022). However, without the moderating effects of traditional management and supporting structures, the impact of team conflict is more pronounced (Thomas et al., 2005), particularly in teams with low power base diversity (Sinha et al., 2021) and expertise disparities (E. K. Lee et al., 2022). An intrateam conflict that is allowed to grow without moderating influences can quickly escalate, stimulating competition between team members, and may lead to internal power struggles (van Bunderen et al., 2018); these dynamics, in turn, have a detrimental effect on the team dynamics and performance.

Management education is increasingly required to ensure students acquire the critical soft skills to navigate the modern workplace (Ritter et al., 2018). These include the management of teams, giving and receiving feedback, and communicating effectively, among others. Syndicate work has become a crucial method of teaching these soft skills and has been shown to instil leadership efficacy among the participants (Quigley, 2013). Syndicate groups are used extensively during post-graduate business school programmes, particularly Master of Business Administration (MBA) programmes, to simulate business environments and to stimulate vicarious learning through social exchanges beyond the academic curriculum (Myers, 2021). Students must commit to the syndicate experience to maximise their learning outcomes and acquire the skills necessary for business.

Uncommitted free-riding team members and intrateam conflict are commonly

reported problems within syndicate teams (Fellenz, 2006). Quigley (2013) showed that an individual team member's openness, emotional stability, and agreeableness predict improved learning outcomes gained through syndicate work. Further, they highlight that feedback from fellow students during the process is a crucial driver of improved learning outcomes. The lack of hierarchy within syndicates reduces the effectiveness of formal influence tactics, and team members must often rely on social tactics to influence team decisions (Fellenz, 2006). Consequentially, ensuring the commitment and involvement of all team members and understanding the impact of the social exchange within the group is essential for the learning outcomes.

This study proposes that by studying the relationship between conflict and commitment within these syndicate teams, we can gain valuable insights into the conditions that determine how detrimental the conflict is and find ways to increase team members' commitment towards their groups and the learning process. In doing so, we help ensure that graduates who enter leadership positions within industry have the skills required to navigate the complex modern business environment. This is of particular importance in South Africa as it faces an increasingly urgent crisis of leadership that extends across both the public and private sectors (Wielenga & Holtzhausen, 2021).

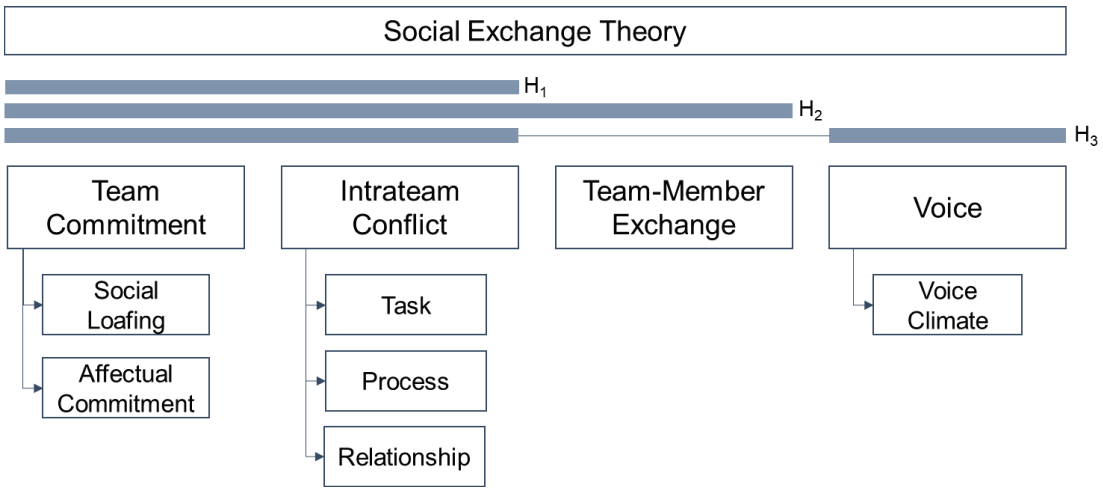
This study, therefore, sought to extend the existing literature on team conflict and commitment through a quantitative investigation of the relationship between intrateam conflict and affective commitment. The relationship was examined through two moderating constructs, team-member exchange and voice climate. This report continues with a literature review of the constructs used - affective commitment, team conflict, team-member exchange (TMX), and voice climate. The document then outlines and describes the hypothesis model, population, and methodology employed. The statistical findings are presented, and the implications thereof are discussed.

2. Theory and Literature Review

The literature review that follows explains the theory and constructs used in this study and provides a grounding for the hypotheses model that follows.

Figure 1

Overview of the Theory and Constructs Reviewed



2.1. Team Commitment

High-performing, cross-functional teams rely on team members' individual contributions and require cohesion and support within the group (Nesterkin & Porterfield, 2016); therefore, all the team members must feel connected to and responsible for the team's processes and goals. Broadly the commitment members feel towards their groups is defined as organisational commitment - the emotional attachment to the organisation and the desire to use one's resources to pursue the organisation's goals (Allen & Meyer, 1990).

Psychological contracting provides a helpful basis for understanding how individuals become committed to their organisation. A psychological contract is defined as "an implicit contract between an individual and his organization which specifies what each expect to give and receive from each other in their relationship." (Kotter, 1973, p. 92). These expectations may include a host of conditions, including explicit rewards, such as pay or development opportunities, or more implicit expectations, such as social support from and positive relationships with fellow team members

(Cullinane & Dundon, 2006). Organisational commitment is closely linked with psychological contract fulfilment; through the subsequent social exchanges, the expectations that form this contract are either fulfilled, reinforcing the emotional attachment to the organisation, or unfulfilled, weakening the attachment (J. Lee et al., 2018).

In their systemic literature review, Yahaya & Ebrahim (2016) found supporting evidence that team performance, job satisfaction, and motivation are linked to commitment making it an essential construct in understanding team dynamics and outcomes. Team members who firmly commit to the team are likelier to exhibit organisational citizenship behaviours (OCB), engaging in discretionary work outside their direct responsibilities and reward structures (Khaola & Rambe, 2020). The time spent with the team, or tenure, increases commitment (Yahaya & Ebrahim, 2016), making commitment more challenging in teams, such as syndicate groups, that come together for a short period. This is likely due to the increased collectivism felt by teams with longer tenure and the refinement of expectations within the individuals' psychological contracts.

The associated team-level construct, the commitment climate, measures the variability and strength of the commitment among team members. Teams with disparate levels of commitment are associated with misaligned goals, problematic communication behaviours, and poor decision-making quality; furthermore, adverse outcomes are more likely to occur in teams with a low overall commitment level (Manata et al., 2021). This suggests that maintaining a solid and equal level of individual commitment across the team is vital for team processes and positive outcomes.

2.1.1. Social Loafing

A common complaint in student teams is that of 'free-loading' group members who are not committed to the group's goals and are unwilling to contribute a proportional share of the workload (e.g. Fellenz, 2006; Jassawalla et al., 2009; Schippers, 2014). In literature, this is considered a form of social loafing, defined as the decrease in the effort made by individuals when working within a group compared to when working alone (Latané et al., 1979). The phenomenon was first observed in a physical experiment conducted by Ringelmann, a German psychologist. He showed that the

average force exerted by individuals pulling on a rope reduced exponentially as additional rope pullers were added to the team. Social loafing has since been observed in a myriad of team settings and is a well-documented frustration in the workplace, including within agile teams (Fronza & Wang, 2021).

Social loafing is more common in teams, such as syndicate groups, where individual contributions are difficult to quantify or evaluate (Guerin, 1999). Social loafers are more socially disconnected from the group and are more likely to produce poor-quality work while engaging in disruptive and distractive behaviours (Jassawalla et al., 2009); this, in turn, increases the risk of disagreement and conflict within the teams. It also occurs more commonly in groups that are more individualistic than collectivist and where the individual team members have low self-efficacy (Luo et al., 2021) and team members who experience high levels of conflict within their group are more likely to social loaf (Furumo, 2009).

Conversely, increased feedback and evaluation, particularly from a supervisor, reduces social loafing (Simms & Nichols, 2014) and increases the likelihood OCB among team members (Peng & Chiu, 2010). Similarly, the risk of social loafing is reduced when team members feel a strong affective commitment towards their teams and feel that they have community support (Zhang et al., 2021). Together, this suggests that groups with highly committed members and a culture of providing feedback to fellow team members, particularly feedback that increases their self-efficacy, strengthens bonds, and creates a collective identity, should see less social loafing. Consequentially, understanding the antecedents to the commitment felt by the team members is critical to understanding how to reduce social loafing within teams.

However, it should be noted that social loafing is not always detrimental to the team's performance, particularly when the conscientiousness and agreeableness of the team members are high (Schippers, 2014). Conscientious team members who notice the shortfall may take up the slack and maintain a high level of group performance despite the social loafing by other members.

Syndicate work aims to provide experiential learning by simulating the business environment (Fellenz, 2006). As such, it is essential that all team members feel committed to the experience and engage and participate in the work, not only for

their own benefit but also to provide learning experiences for their fellow students.

2.1.2. Commitment Found Within Teams

Allen & Meyer's (1990) seminal paper split team commitment into three components, namely –

> *Affective commitment* – the want to – stems from the emotional attachment to, involvement, and identification with the organisation.
>
> *Continuance commitment* – the need to – stems from the need to remain due to the perceived cost-benefit balance of leaving.
>
> *Normative commitment* – the ought to – stems from the obligation/duty to remain due to the perceived moral responsibility to the team.

However, Meyer et al. (2002) found a significant correlation and overlap between the normative and affective commitment constructs in their meta-analysis. They established that affective commitment is more firmly linked to positive team outcomes and that continuance commitment was generally weakly and negatively related to various team outcomes. Building on this, Zhang et al. (2021), showed that social loafing in teams with short tenure (less than 12 months) is predicted by the affective commitment felt by the team members. However, neither continuance nor normative commitment was related to social loafing. They went on to show that social loafing was inversely related to normative commitment in teams with longer tenure (greater than 12 months). This implies that feelings of obligation increase the risk of social loafing within longer-tenure teams. In their literature review, Mercurio (2015) further supported this argument and found affective commitment to be the essential core of organisational commitment. For these reasons, this study focuses only on affective commitment.

2.1.3. Affective Commitment

Affective commitment is associated with intrinsic motivation and stems from the individual's identification with- and emotional attachment to- the organisation (Mercurio, 2015). Various extrinsic and intrinsic rewards influence commitment (Malhotra et al., 2007). In particular, the extrinsic reward of career development or

promotional opportunities was found to have a meaningful relationship with affective commitment. Further, intrinsic rewards such as role clarity, participation in decision making and job autonomy positively affect affective commitment.

Although affective commitment has antecedence in an individual's demographic differences and their investments into the organisation's outcome (Meyer et al., 2002), it correlates most closely with work experiences, socialisation, trust, and interpersonal relationships (Mercurio, 2015). We expect then that affective commitment will inversely relate to interpersonal conflict, particularly relationship conflict.

Strong affective commitment in employees reduces absenteeism and moderates work stress while decreasing feelings of burnout and emotional stress (Mercurio, 2015). Affective commitment is predictive of individuals exhibiting OCB, where team members exhibiting high levels of commitment are more likely to support their teams by performing discretionary work (Meyer et al., 2002) and reduces intentions to quit (Haque et al., 2018). In teams, like syndicate groups, where leadership is shared and not formally structured, these outcomes are particularly important as team members are often required to go above and beyond their self-assigned roles.

2.2. Team Conflict

Conflict within teams is detrimental to their unity and performance (Nesterkin & Porterfield, 2016), consuming valuable time and resources that could otherwise be used to reach the team's goals. Teamwork requires the development of a common identity amongst the group, aligning the individuals' vision, goals and motivations with that of the group (Ashforth & Mael, 1989). However, a conflict between team members reduces this identification and, by extension, the team's cohesion, supportiveness and performance (Nesterkin & Porterfield, 2016).

Research into team conflict splits into three components (De Dreu & Weingart, 2003; O'Neill et al., 2013, 2018), namely-

> *Process Conflict (CP)* – arising where there is disagreement over how and when work should be completed, for example, how the workload and roles are divided amongst the team members.

Relationship Conflict (CR) – stems from perceived interpersonal incompatibility arising from personality clashes that result in feelings of anger, resentment, and animosity.

Task Conflict (CT) – arising from debates over incompatible divergences in opinions, perspectives and ideas about the team's tasks or work.

Syndicate teams, and teams in the broader business community, come together to cooperate on tasks that would otherwise be too complex for an individual to complete alone (Nesterkin & Porterfield, 2016). Both relationship and task conflict are positively associated with competitive behaviours and negatively with cooperative behaviours, suggesting an increase in individualism, and its accompanying risk of social loafing, within teams with high levels of conflict (O'Neill et al., 2013). Relationship conflict is also associated with avoidance behaviours, further distancing the individual from the group, and reducing the social exchanges between team members (O'Neill et al., 2013). This increased individualism and avoidance degrades the team's effectiveness and ability to complete the complex task they were brought together for.

Of the three types of conflict, process conflict has the most substantial adverse effect on team performance, increasing feelings of injustice within the group (O'Neill et al., 2013). The impact of process conflict is not confined to team outcomes and induces negative affect states within employees, which increases their psychological and physiological strain and negatively impacts their wellbeing (Kuriakose et al., 2019). Similarly, relationship conflict has a strong and adverse relationship with team performance and member satisfaction (O'Neill et al., 2013). It also relates to the collective emotional exhaustion felt by the team (Benitez et al., 2018). The relationship between process and relationship conflict has been found to correlate strongly, pointing to the potential for one type of conflict to spill into the other (de Wit et al., 2012; O'Neill et al., 2018). A potential cause for this spill over is the increasing feelings of injustice caused by process conflict, which flare emotions and spiral into relationship conflicts.

Due to the increased feelings of injustice, individualism, and avoidance behaviours found within teams with high levels of conflict. This study, therefore, puts forward the following propositions:

Proposition 1a – Relationship Conflict will have a negative relationship with affective commitment

Proposition 1b – Process Conflict will have a negative relationship with affective commitment

Somewhat surprisingly, meta-analyses into task conflict have shown that task conflict alone is unrelated to performance (e.g. de Wit et al., 2012; O'Neill et al., 2013) and that other factors result in it being either detrimental or beneficial to the team's performance (e.g. Bradley et al., 2012; E. K. Lee et al., 2022; O'Neill et al., 2018). However, the literature is unclear on which conditions determine when conflict is beneficial, and E. K. Lee et al.'s (2022) call for additional research on these conditions.

E. K. Lee et al. (2022) showed that the relationship between performance and task conflict is curvilinear in a sample of university student teams, where the best performance was achieved at moderate levels of task conflict. They suggest that the information gained through the conflict process is the driving factor behind task conflict benefits. These findings suggest that task conflict may be beneficial when it facilitates the sharing of ideas and does not lead to other types of conflict. Supporting this argument, a psychologically safe climate, where team members feel empowered to share opinions and take risks, was a moderating condition supporting the team's benefit from task conflict (Al-Ghazali & Afsar, 2021; Bradley et al., 2012). The willingness of groups to share their opinions and the quality of the exchange between team members could moderate the harmful effects of task conflict.

Task conflict may therefore be viewed positively by the team members when it increases effectiveness and performance. As such, these exchanges should reinforce the group's social relationships and help develop increased affective commitment to the team. The study, therefore, puts forwards the following propositions.

Proposition 1c – Task conflict will be negatively related to affective commitment

Proposition 1d – This relationship will be curvilinear in nature, where the most substantial commitment is achieved at moderate levels of task conflict

Relationship conflict is more damaging to team effectiveness, positive affective team climate and interpersonal relationships than task conflict, suggesting that task conflict is preferable to personality clashes (Telecan et al., 2022). The study, therefore, proposes that:

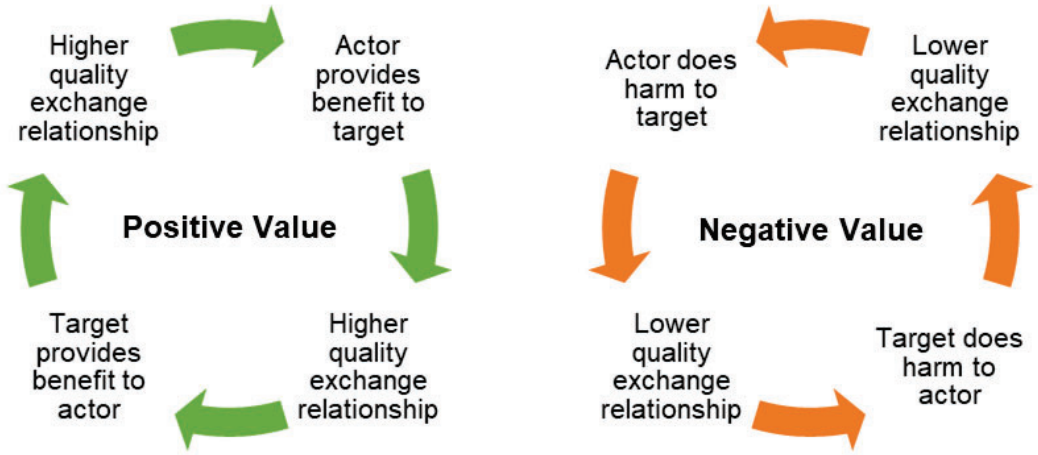
> Proposition 1e – Of the three types of conflict found within teams, task conflict, will be the least damaging to the affective commitment felt by the team members

2.3. Quality of the Social Exchanges Between Team Members

2.3.1. Social Exchange Theory

Figure 2

Social Exchange Process Flow



Note. Adapted from "Social Exchange Theory: A Critical Review with Theoretical Remedies" by Cropanzano et al., 2017, *Academy of Management Annals*, *11*(1), 3. https://doi.org/10.5465/annals.2015.0099.

Social exchange theory provides a framework that helps to explain how the conflicts within teams impact the team members' organisational commitment. The theory states that the interactions between individuals are reciprocal, where the resources received, both tangible and intangible, tend to initiate an obligation of repayment by the receiving party (Gouldner, 1960). As illustrated by Figure 2, where an interaction is perceived as positive, the target of the action, in this case, a team member, is likely to respond with more positive reciprocating behaviours. The reverse is also true,

where negative interactions lead to poor social exchange relationships and promote increasingly transactional interactions.

Under social exchange theory, a team's norms, beliefs, and customs are built through the sequential interactions between team members (Knoll et al., 2021). Team members initially join the group with their own implicit knowledge and theories. However, each subsequent interaction with the team builds on this knowledge and the precedence set by previous interactions, gradually shaping a shared perception of the team's implicit norms, values, and culture. Interactions that are characterised by conflict will likely influence the subsequent interactions negatively. However, repetitive positive interactions and work experience strengthen organisational commitment among the team members (Meyer et al., 2002).

While the original theory views the interactions as active engagements, more recent work highlights that the interaction and response do not need to be active and may be characterised by withholding action (Cropanzano et al., 2017). For example, a manager withholding support for his subordinate may lead to an increased distrust response from the subordinate.

Due to their flat structure, lack of formal hierarchy and limited formal power, the syndicate groups rely heavily on social exchanges and social influence tactics to develop their working culture (Fellenz, 2006). This makes the social exchange an exciting lens with which to view these teams' dynamics.

2.3.2. Team-Member Exchange (TMX)

Team-member exchange (TMX) is an extension of Social Exchange Theory and was introduced into the literature by Seer, Petty, and Cashman (1995) to measure the quality of the reciprocal exchange between team members. It builds on- and contrasts with- previous research on leader-member exchange (LMX) – a measure of the quality of social exchanges between leaders and subordinates. The exchanges measured by TMX occur between an individual member and their team in the form of ideas, recognition, assistance, and feedback. The quality of these reciprocal exchanges is considered foundational to the functioning of self-managed teams, and each team member's role is built and shaped over time through these interactions (Seers et al., 1995). High-quality exchanges between team members are marked by

respect and increase their identification with the team and appreciation of their fellow team members (Farmer et al., 2015).

Under Social Exchange Theory, high-quality exchanges between team members build the team's collective identity, help to develop a shared understanding of the group norms, and improve relationships between team members (Knoll et al., 2021). The reciprocity created by high-quality TMX reduces the risk of employees instigating uncivil behaviours, such as talking down to others or ignoring a colleague and reduces feelings of psychological contract violation (Gervasi et al., 2022). A meta-analysis by Banks et al. (2014) found that high-quality TMX positively correlates with job performance, job satisfaction, and reduced turnover intentions, suggesting that teams with high-quality TMX are likely to have more committed members.

Task conflict requires the exchange and defence of ideas and opinions, suggesting a strong link between high-quality TMX and task conflict. Supporting this, a study conducted in a multinational corporation in Singapore found problem-solving conflict behaviours, that is, solution-orientated conflict, to be positively related to high-quality TMX (Aw & Ayoko, 2017). TMX quality has been shown to mediate the relationship between the team’s voice climate and individual team members' commitment to the team (Ohana & Stinglhamber, 2019). Teams with a climate of sharing ideas and opinions are more likely to have more robust interpersonal exchanges, stronger relationships, and more committed team members.

As discussed in section 2.1.3, one of the outcomes of strong affective commitment towards the team is an increase in OCB. Similarly, there is evidence of a strong link between the high-quality TMX and identification with the group which, in turn, predicts helping OCB between team members (Farmer et al., 2015). Therefore, there is likely a link between TMX quality and a team member's affective commitment. Furthermore, linking back to section 2.2, conflict may have more beneficial outcomes when it results in exchanging information and ideas, which may be measured as TMX quality. Moreover, the quality of TMX has been shown to moderate the effects of emotional conflict on other team’s outcomes, such as innovation behaviour (Wu et al., 2018). This study, therefore, puts forwards that:

> Proposition 2 – the relationship between team conflict, including task, relationship, and process conflicts, is likely to be moderated by the quality of the social

exchanges within the group such that the negative relationship between conflict and affective commitment is weaker in teams with high-quality TMX.

2.4. Voice

The tendency of team members to express opinions and views with the intention of bringing about change within a group is referred to as *voice* (Bashshur & Oc, 2015). Voice has been widely studied in multiple fields of literature. In their review Bashshur and Oc (2015) highlight the key theme of intention to bring about change and define *voice* as:

> The discretionary or formal expression of ideas, opinions, suggestions, or alternative approaches directed to a specific target inside or outside of the organisation with the intent to change an objectionable state of affairs and to improve the current functioning of the organisation, group, or individual (p.1531).

Voice is beneficial to team processes and outcomes. For example, agile teams can increase their adaptability and innovativeness by encouraging individual team members to share in the decision-making processes and voice their ideas and opinions (Grass et al., 2020). Teams where members feel safe sharing divergent views, creating minority dissent, are more likely to find innovative solutions (Nijstad et al., 2014). Conversely, teams with a hesitancy to share information are less likely to make informed decisions.

2.4.1. Operationalisation of Voice

Depending on the area of research, voice is operationalised slightly differently (Bashshur & Oc, 2015). Justice within teams and organisations is a widely studied field, predominately through the lens of social exchange theory, and research into the area has split justice into four dimensions - procedural, distributive, interpersonal, and informational justice (Colquitt et al., 2013).

Research into voice within the organisational justice literature focuses on the perceived fairness of procedures leading to group decision-making (Colquitt et al.,

2013). It operationalises voice as an opportunity to provide input and have a say in decision-making and outcomes. In this context, procedural justice research may disregard whether the individual makes use of the opportunity or not. Perceived procedural justice is linked to a host of work and human behaviours; notable for this study are organisational commitment, leader-member exchange, trust, organisational citizenship behaviour, and task performance (Colquitt et al., 2013).

Research into proactive work behaviours operationalise voice slightly differently and focuses on voice as a behavioural action. Here, voice is seen as the act of an individual voluntarily communicating new ideas, information, and concerns to bring about change, even if it may challenge other members' positions and opinions. The action is described as *Voice Behaviour* in literature (Detert & Burris, 2007; Sherf et al., 2021).

Under proactive voice theory, the team member that voices their thoughts to create change attracts some level of resistance within the group and must weigh the importance and impact of the action against the potential interpersonal consequences (Detert & Burris, 2007). Voice behaviour can therefore be partly predicted by the perceived impact of the action and the perceived psychological safety within the group (Sherf et al., 2021). Here, psychological safety is defined as the "shared belief held by members of a team that the team is safe for interpersonal risk-taking" (Edmondson, 1999, p. 350). Safer psychological climates provide performance benefits to teams by diminishing the detrimental effects of conflict (Bradley et al., 2012). Leaders can increase the voice behaviours within the group by promoting psychological safety through a robust leader-member exchange (Chamberlin et al., 2017).

While new ideas are often opposed or ignored when shared, particularly when voiced by subordinates, some filter through and are eventually implemented and improve the team's processes and outputs (Satterstrom et al., 2021). Hence, even if it is not immediately acted upon, increased voice behaviour positively affects team outcomes, including performance (Li et al., 2017) and innovation (Nijstad et al., 2014). Therefore, voice likely influences other team processes and outcomes, notably conflict and affective commitment in this study.

2.4.2. Voice Climate

Voice Climate is the associated group-level construct representing the group's shared perception of voice behaviours. It is defined as the " the shared perceptions among group members of the extent to which their work group is encouraged to engage in voice behaviors" (Frazier & Bowler, 2015, p. 843). Voice behaviour has antecedence in both individual-level attitudes and dispositions as well as in shared group-level perceptions and social dynamics (Frazier & Bowler, 2015). The voice climate within a team strongly predicts the voice behaviour within the group beyond that of the individual's attitudes and has a significant effect on the group's outputs and performance (Morrison et al., 2011). This relationship is particularly strong within psychologically safe teams (Chauhan et al., 2022) and a strong voice climate leads to better team outcomes, such as improved decision-making effectiveness and innovation performance (Duan et al., 2019).

By either initiating voice behaviours or by recognising and amplifying the voice behaviours of others, team members gain status benefits within the group through positive social exchanges and help to build a stronger voice climate (Bain et al., 2021). The quality of team-member exchange (TMX) is higher in teams where members perceive a strong voice climate and are encouraged to share their views (Duan et al., 2019). Further, a stronger voice climate increases the affective commitment felt by team members (Ohana & Stinglhamber, 2019).

Bashshur and Oc (2015) hold the view that voice is beneficial at a group level. Although they also found evidence for improved group decision-making, creativity, and innovation, there is a need for additional empirical research into voice at an organisational or team level.

The perceived voice climate within a group is related to the quality of social exchange between team members and the affective commitment felt by the team. Therefore, voice climate may play a moderating role in the relationship between the conflicts in the team and the team member's commitment. The study, therefore, proposes that:

> Proposition 3 – the voice climate within the group will moderate the relationship between conflict and affective commitment felt by the team members, such that a strong voice climate will reduce the negative effects of team conflict of affective

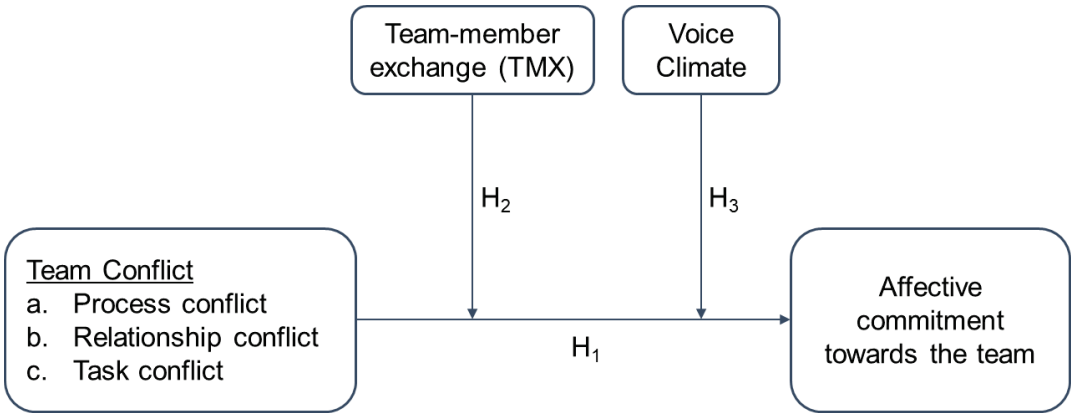
commitment.

3. Hypotheses Model

This study suggests that affective commitment is vital in flat-structured or zero hierocracy teams. By investigating the impact that conflict has on affective commitment through the lens of TMX and perceived voice climate, this study aimed to contribute further to the conflict literature by attempting to answer the call from E. K. Lee et al. (2022) to examine further the conditions that lead to more beneficial conflict outcomes. The propositions set out in chapter 2 were used to define the following hypothesis model.

Figure 3

Hypothesis Model



3.1. Affective Commitment and Team Conflict

The literature review states that affective commitment is antecedent to many positive team outcomes and impacts critical team processes such as goal alignment and decision-making. It is therefore regarded to be a strong indicator of well-functioning teams.

On the other hand, process and relationship conflict are negatively related to team performance and commitment. For example, Thomas et al. (2005) showed that, in a military setting, interpersonal conflict negatively relates to organisational commitment. However, depending on moderating team dynamics, task conflict may have beneficial or detrimental effects on team outcomes (E. K. Lee et al., 2022; O'Neill et al., 2013). E. K. Lee et al. (2022) found that the relationship between task

conflict and performance is curvilinear in some cases. Therefore, the following hypotheses are proposed and tested against their associated null hypotheses.

Hypothesis 1:

$H_{1\text{-}a}$ Process conflict has a negative relationship with affective commitment toward the team.

$H_{1\text{-}b}$ Relationship conflict has a negative relationship with affective commitment toward the team.

$H_{1\text{-}c}$ Task conflict has a negative relationship with affective commitment towards the team.

$H_{1\text{-}d}$ The relationship between task conflict and affective commitment contains an inflection point (curvilinear effect), such that moderate levels of task conflict correlate with the strongest commitment.

$H_{1\text{-}e}$ Of the three types of conflict, task conflict has the weakest negative relationship with affective commitment towards the team.

3.2. The Moderating Role of TMX

We can better understand the relationship between conflict and organisational commitment By investigating the moderating role of TMX. Social exchange theory states that interactions between team members are reciprocal and that positive or negative interactions are responded to in kind. This suggests that conflicts within the team will influence further interactions, resulting in a change in the quality of the team-member exchange (TMX). This change in the exchange quality will affect the team members' organisational commitment. However, the affective commitment within teams with high-quality TMX should be less impacted by the conflict than those with low-quality TMX. The hypotheses that follow are thus building on the work of Ohana & Stinglhamber (2019), who showed that the quality of TMX correlates with individual commitment within the team.

Hypothesis 2:

H_{2-a} TMX moderates the relationship between process conflict and individual affective commitment towards the team, such that high-quality TMX reduces the strength of the relationship

H_{2-b} TMX moderates the relationship between relationship conflict and individual affective commitment towards the team, such that high-quality TMX reduces the strength of the relationship

H_{2-c} TMX moderates the relationship between task conflict and individual affective commitment towards the team, such that high-quality TMX reduces the strength of the relationship

3.3. The Moderating Role of Voice Climate within the Team

The voice climate within the team predicts voice behaviour over and above individual differences (Morrison et al., 2011) and reduces the feelings of injustice within the team (Richard et al., 2002). Further, voice climate correlates to the quality of the TMX within the group (Duan et al., 2019; Ohana & Stinglhamber, 2019). This, in turn, should reduce the adverse effects of intrateam conflict on the affective commitment of the team members. We expect that the perceived voice climate, operationalised as the opportunity for voice within the group, will moderate the relationship between intrateam conflict and affective commitment.

Hypothesis 3:

H_{3a} Perceived voice climate moderates the relationship between process conflict and individual affective commitment towards the team, such that a strong voice climate reduces the strength of the relationship

H_{3b} Perceived voice climate moderates the relationship between relationship conflict and individual affective commitment towards the team, such that a strong voice climate reduces the strength of the relationship

H_{3c} Perceived voice climate moderates the relationship between task conflict and individual affective commitment towards the team, such that a strong voice climate reduces the strength of the relationship

3.4. Control Variables

While the hypotheses are grounded in prior literature, there is a risk of alternative explanations for the relationships studied. Control variables were selected to reduce this risk following the recommendations of Becker (2005). Age, tenure of the syndicate, gender, institution, and population group were chosen as control variables for the study. These control variables have been used in similar studies; for example, Ohana and Stinglhamber (2019) controlled for tenure, age and gender in their research. Tenure, in particular, has been found to impact organisational commitment and should therefore be controlled for in the models (Yahaya & Ebrahim, 2016).

There is also evidence that cultural differences play a role in determining how organisations and commitment are perceived (Gamble & Huang, 2008). Given the historical context of South Africa and the various cultural values and norms found within the rainbow nation, the population groups to which the respondents identify were added as a fourth control variable for this sample. Finally, to control for organisational differences between the business schools, the institution attended was included as a population-specific control variable.

4. Research Methodology and Design

4.1. Research Design Introduction

The research design aims to investigate how the three types of conflict found in teams impact individual affective commitment towards the teams through two moderating constructs, TMX and voice climate. The research focuses on describing the relationship between the constructs at a point in time rather than assessing the constructs over a period. This choice was partly due to the time constraints on this project, making a longitudinal study difficult to complete reliably. Due to this, the study's methodology is descriptive and could not prove a causal relationship between the constructs. Saunders and Lewis (2018) describe descriptive studies as the forerunner to causal explanatory research.

The research followed a positivist philosophy. Scotland (2012) states that positivism aims to describe relationships by identifying causes that influence outcomes. Positivism suggests that the world can be explained by verifiable evidence and data not shaped or influenced by the researcher or subjects. This philosophy differs from interpretivism, which holds that reality is subjective and its perception may vary from person to person and from context to context (Saunders & Lewis, 2018).

Edmondson and McManus (2007) highlight the importance of methodological fit – where, to make a meaningful contribution, the research design must fit the maturity of the literature. They emphasise that research cycles on a continuum between theory creation, through nascent inductive research, and theory testing, through mature deductive research. The research conducted in this report is based on theoretical constructs and relationships that have been well-defined in the literature. As such, the study was informed by mature research and followed a deductive approach based on mature literature.

Given the mature state of the constructs studied, a mono-method approach was employed in the study, where primary quantitative data was collected through an online survey (Edmondson & McManus, 2007). This approach contrasts with a multi- or mixed-method design that follows two or more data collection techniques, for example, conducting both qualitative interviews and quantitative surveys (Creswell, 2009). The survey collected data using construct measurement scales taken from the existing literature that quantified the responses using a Likert-type scale.

Saunders and Lewis (2018) define quantitative data as “Data consisting of numbers or data that have been quantified” (2018, p. 86). This data was then used to test if the relationships were statistically significant, in alignment with the positivist nature of this study.

This research sought to test the hypothesis model at a single time point and did not seek to explain how these relationships may change over time. A cross-sectional time horizon, as opposed to a longitudinal one, was used in this study. A cross-sectional time horizon study uses once-off data collection to describe the constructs and test the hypotheses at a single time point (Saunders & Lewis, 2018). A cross-sectional design is limited in its ability to assign causality as change over time is not observable (Bono & McNamara, 2011).

4.2. Population

Zyphur and Pierides (2017) suggest that defining a population for the study is an act of classification that creates a whole group or population defined by chosen criteria. The selected population of the study was students or graduates that worked within syndicate groups while completing an MBA or a post-graduate degree in business at a South African university. These syndicate groups have little formal structure and little formal power dynamics that are analogous to many project and work teams operating in business. The estimated size of this population is 2500 students per year across 17 universities (Furlonger, 2022). Screening questions, found in Appendix Bb, were added to the survey to ensure that the respondents met the specified population criteria.

4.3. Unit of Analysis

Following a similar approach to Ohana and Stinglhamer (2019), this study's unit of analysis and observation is the individual syndicate team member’s perceptions of the team’s experiences and dynamics. Crane et al. (2018) found that most business research has taken place at an organisational, industry or country level and that the individual level has been largely neglected. This study attempts to answer this call by focusing on the commitment felt by the individual and their perceptions of the conflict, quality of the social exchanges and the voice climate within the team.

4.4. Measurement Scales

Given the time constraints placed on this study, the constructs were measured using measurement scales taken from existing literature to reduce the risk of invalid and unreliable results. Cronbach Alpha's is a statistical test used to ensure that the instruments have internal consistency – that is that the scale indicators, sometimes also referred to as scale questions or items, within the scales correlate sufficiently to be considered to be measuring the same construct (Tavakol & Dennick, 2011). For a scale to be deemed reliable, it should have a Cronbach's alpha (α) between 0.7 and 0.95, with a score between 0.6 and 0.7 seen as marginally acceptable (Hair et al., 2014). The original scales and their indicators may be found in Appendix A.

4.4.1. Team Conflict

Relationship and task conflict were measured using Pearson et al.'s (2002) scale based on the intragroup conflict scale developed by Jehn (1995). The intragroup conflict scale has been widely used in research and was refined to a six-item scale by Pearson et al. This refined scale was reported to have a Cronbach α = 0.79 for the task conflict measure and an α = 0.79 for the relationship conflict measure. A sample question from this scale is "How many disagreements over different ideas were there".

Process conflict was measured using a three-item scale developed by Shah & Jehn (1993) and adapted by Jehn and Mannix (2001), who reported the scale to have Cronbach α = 0.93. A sample question from the scale is "How often do you disagree about resource allocation in your workgroup."

4.4.2. Affective Commitment Towards the Team

Affective commitment toward the team was measured using the 3-question scale developed by Bentein et al. (2002). The scale was more recently used by Ohana & Stinglhamber (2019), who reported internal consistency of α =0.92. A sample question from the scale is "I really feel that I belong in this workgroup."

4.4.3. Team-Member Exchange

Team-member exchange was measured using the 10-question scale introduced by

Seers et al. (1995), who reported the scale to have an internal consistency of α =0.83. The scale was more recently used by Ohana and Stinglhamber (2019), who reported internal consistency of α =0.87. A sample question from the scale is “I am willing to help finish work that had been assigned to others”.

4.4.4. Perceived Voice Climate

Voice Climate was measured using the 3-question scale developed by Ohana (2016). The scale was more recently used by Ohana and Stinglhamber (2019), who reported internal consistency of α =0.83. A sample question from this scale is “I am able to express my views and feelings before decisions are made by my workgroup”.

4.4.5. Control Variables

The control variables were measured within the survey as either demographic or screening questions. Common categorical answers, informed by the categories used in the General Household Survey conducted by StatsSA (2021), were provided with a free text option to ensure inclusion for all respondents. The questions used may be found in Appendix B. The responses were then standardised and coded before being used within the data analysis.

4.5. Sampling and Research Instrument Development

An anonymous online survey was employed to collect data. Creswell (2009) describes a survey as a method of collecting quantitative data from a sample of a target population. The data collected is quantitative and describes trends or opinions of the sample, which are generalisable to the population.

The survey first asked screening questions to ensure that the respondent fulfilled the required characteristics of the study’s population. Following Buvik and Tvedt’s example (2016), the constructs were measured using the above-mentioned scales on a 7-point Likert scale. The Likert scale measured either frequency, on a scale of *never – always,* or level of agreement, on a scale of *strongly disagree - strongly agree*. The Likert scale was introduced in 1932 to quantify the level of agreement (or another attitude) the respondent has to the statement or question and is widely used in business research (Joshi et al., 2015). Finally, demographic questions were asked to ensure that the respondents were representative of the population. No names or

email addresses were requested or recorded to ensure the anonymity of the respondents.

4.5.1. Survey Development and Piloting

The survey was compiled using Google forms, a free online survey distribution and data collection tool. Using Google Forms, the survey could be distributed electronically, and the responses recorded electronically. This enabled wider survey distribution and for the respondents to answer the survey in their own time. Additionally, this limited the errors associated with manual data capturing and invalid responses. The survey was divided into three sections: screening, research, and demographic. Where necessary, the scale indicators were converted from questions to statements to make them usable with the Likert scale. Within the research question section, the question order was randomised, and selected questions from the scales were negatively coded to reduce the risk of response biases, such as habituation bias (SurveyMethods, 2018).

The prototype survey was distributed to 8 potential survey respondents, who were requested to complete the survey and provide feedback on any errors or ambiguity. Additionally, they were asked to time the duration required to complete the survey. The feedback received was used to correct the errors and clarify the wording where needed. The issues related to spelling errors and one question that had been incorrectly copied into the survey. A list of the corrections made to the prototype survey is available in Appendix C. Approximately six minutes was required to complete the survey, and a timing estimation was included in the survey consent statement, which stated that the survey should take less than ten minutes to complete. A sample copy of the finalised survey may be found in Appendix B.

4.5.2. Sampling Method

As a complete list of the population is not available, it was impossible to select respondents at random. However, the population divides into natural clusters around the universities, cohorts, and syndicate workgroups. These groups have similar characteristics, and a cluster sampling approach was initially employed for data collection (Wegner, 2020). The study proposed using classes at the Gordon Institute of Business Science (GIBS) as clusters of study to collect the data. Unfortunately,

the researcher could not obtain permission to complete the data collection within a classroom setting at the institution, as the faculty were concerned that there would be a flood of requests to collect data in class in future if it were to be allowed.

Instead, messaging groups were targeted for data collection. The researcher is a member of a privately managed Telegram group comprising 600 voluntary members of current and former GIBS students. This group was initially used to solicit responses to the survey. Unfortunately, after distributing the survey to the group and sending out reminders, only 11 responses were received, representing a response rate of less than 2%. The survey was then distributed to further messaging groups described in the table below. Again, low response rates were recorded from these groups.

Table 1

Message Group Clusters Initially Targeted

Cluster Description	Approximate number of participants
GIBS Buddies Telegram Group	600
MBA Intensive Cohort Group	17
Health Care Stream Group	15
GIBS Women's Group	143
Global Module Israel Group	30
Hedgefund Elective Group	15

Given the low response rates, a snowball sampling approach was then used. Snowball sampling is used when individuals within the population are either difficult to identify or to access and relies on participants to help identify further potential participants (Saunders & Lewis, 2018). The survey was distributed using private messages to individuals found via LinkedIn's search functionality, requesting them to both complete the survey and forward it to members of their cohorts. Using LinkedIn's search filters, described in Table 2, the survey was distributed to the first 171 individuals that met the population criteria. LinkedIn uses an InMail credit system that limits the number of unsolicited private messages that can be sent by a user per month, limiting the number of individuals that could be contacted in this manner. Of the 171 InMails sent, 43 replied and confirmed they had completed the survey.

Table 2

Filters used for LinkedIn Search

Filter Type	Filter by
Search Term	"MBA"
Search Type	People
Schools	"Henley Business School" OR "GIBS Business School (Gordon Institute of Business Science)" OR "Graduate School of Business - University of Cape Town" OR "Wits Business School" OR "Stellenbosch Business School" OR "Nelson Mandela University Business School" OR "Rhodes University"

Lastly, a request for responses was posted on the researcher's LinkedIn profile. The LinkedIn post was active on the platform for six days. At the time the survey was closed the post was seen by over 1000 people, although many of these individuals were likely not to meet the population screening criteria.

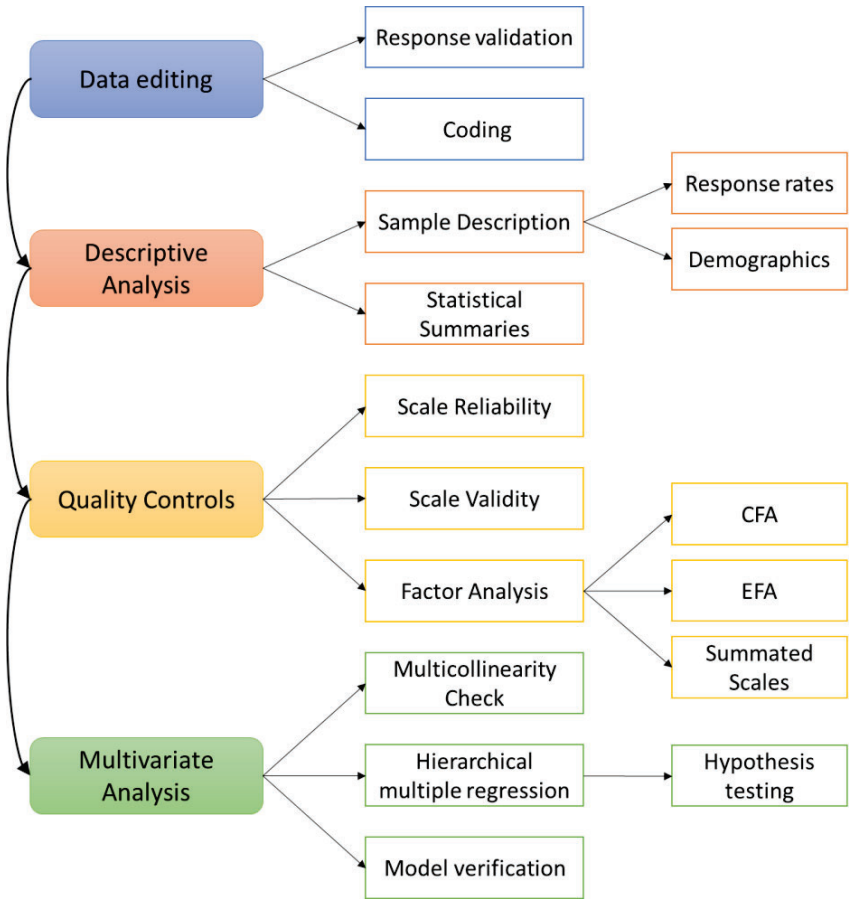
In total, survey responses were solicited across the various platforms for 9 weeks starting in November 2022.

4.6. Analysis Approach

After the raw data was exported from Google Forms, the analysis followed the process flow described below.

Figure 4

Data Analysis Process Flow



4.6.1. Data Editing

The data was imported into Excel, where the responses were validated, checked for completeness, and cleaned of faults and errors that may unacceptably skew the results. The data were then coded using the code book found in Appendix D, making the data readable by SPSS v28.0.1, the statistical analysis software that was used. As only two responses contained missing data, responses with missing data were deleted and not included in the analyses.

4.6.2. Descriptive Analysis

Following Pallant's (2020) approach, the data were analysed using descriptive statistics to explore the data's characteristics and to check for normality and outliers that may skew the results. The sample's demographics were then described, and the response rates were assessed using the results of this analysis.

4.6.3. Quality Controls

A key concern of business research is reducing measurement error by ensuring that the scales used to collect the data are both valid, whether the indicators are measuring the correct construct, and reliable, how consistent the measurement is across a set of indicators.

4.6.3.1. Reliability

Saunders and Lewis (2018) define reliability as the "extent to which data collection method and analysis procedures will produce consistent findings" (p. 135.). Although the scales were taken from existing literature where they were shown to be reliable, they were re-tested for reliability; this was proven using the Cronbach Alpha coefficient (Tavakol & Dennick, 2011).

4.6.3.2. Validity and Factor Analysis

Saunders and Lewis (2018) define validity as the "extent to which (a) data collection method or methods accurately measure what they were intended to measure and (b) the research findings are really about what they profess to be about." (p. 134).

The research is grounded in constructs well-defined in prior literature; this improves the clarity of meaning and reduces the researcher's bias in the findings. In this way, content validity was assured. Summated scales were used to take multiple measurements for each construct; by doing so, the influence of measurement error may be reduced (Hair et al., 2014). Although the scales were taken from existing literature, each construct was tested for validity through a bivariate correlation matrix. Convergent validity was ensured by assessing the indicators' correlation to each other and the summed total construct score (Carlson & Herdman, 2012). Indicators with weak correlation (< 0.3) were excluded from further analysis (Swank & Mullen,

2017).

The scales were then summarised through factor analysis, a process through which the scales are confirmed to be measuring the same underlying factors. As the scales were taken from existing literature and there is an expected underlying factor for each, a confirmatory factor analysis (CFA) was performed to confirm the factor exists (Hair et al., 2014). However, the CFA model fit is sensitive to sample size and where it failed to significantly prove the underlying factors, an exploratory factor analysis (EFA) was conducted to reduce the scales further (Beavers et al., 2019).

Beavers et al. (2019) sets out an approach for completing a factor analysis. A correlation matrix for each scale was generated and assessed to ensure that each indicator had a significant correlation exceeding 0.3 to another indicator and a significant correlation with the indicator total. The Kaiser Criterion was used to determine the number of factors to be extracted, where an eigenvalue ≥ 1 determines this number. Two tests are conducted to confirm that the assumptions are correct and that EFA is acceptable (Hair et al., 2014). Bartlett's test of Sphericity is used to test whether the correlation matrix is factorizable and must be significant ($p < 0.05$). The Kaiser-Meyer-Olkin Test of Sampling Adequacy (KMO) tests the shared variance of the indicators and has a range of 0 – 1. Where higher values are preferred, and values above 0.5 are considered factorizable. Finally, the factors matrix is rotated using a Varimax rotation to maximise the factor loadings. The factors loading were assessed to confirm their significance and for cross-loadings. Where required, the variables with insignificant loading (< 0.5) or high cross-loading were removed, and the revised model was reanalysed (Hair et al., 2014).

4.6.3.3. Data Summarisation

The underlying factors that were produced by the factor analysis were then used to produce summarised scales. This was done by introducing new variables for each factor by taking the average of the set of indicator questions for each response.

4.6.4. Inferential Multivariate Analysis

Following a similar approach to Wu et al. (2018), a multivariate analysis was undertaken to test the hypotheses set out in the model. The hypotheses aim to prove a significant relationship between a dependent variable, affective commitment, and

the independent variables. The hypothesis model consists of four metric variables, one dependent variable, affective commitment and three independent variables – intrateam conflict, TMX, and perceived voice climate. Given this model structure, the most appropriate method is a multiple regression analysis (Hair et al., 2014). Multiple regression allows for the relationships between the variables to be characterized objectively. Hierarchical regression modelling was used to assess the significance of each variable subsequently added to the model. Starting with a control model, the independent variables and the moderator interaction effects are added successively to the model and an F- test is performed to check if the model's R^2 has changed significantly. Additionally, the models were validated by assessing the residual plot for fit to ensure that the assumption of multiple regression hold.

4.6.4.1. Control Variables

Gender, institution, population group, age, and tenure were used as control variables in the regression modelling. These effects were controlled for by creating a base regression model against which the hypothesis models could be tested for statistically significant improvements in their explanatory power (R^2). While ages and tenure were captured using an interval data types and could be directly used in the multiple regression analysis, the three categorical variables, institution, gender, and population group, required the use of binary dummy variables (Pallant, 2020).

4.6.4.2. Curvilinear Effects

To assess the expected curvilinear relationship between task conflict and affective commitment a square transformation of the task conflict measure was used in the regression (Hair et al., 2014). This transformation introduces the expected inflection (peak interaction) point into the model. The variate, therefore, takes the form:

$$Y = b_1 X_1^2 + b_2 X_1 + b_0$$

4.6.4.3. Moderator effects

Similarly, the moderator effects are added to the model by adding a moderating effect by multiplying the independent variable by the moderator variable in the form (Hair et al., 2014). The variate, therefore, takes the form:

$$Y = b_1X_1 + b_3X_m + b_2X_mX_1 + b_0$$

4.6.5. Assumptions of Multiple Regression

Four assumptions must be met when using multiple regression - linearity of the phenomenon, normality of the residuals, homoscedasticity, and independence of the error terms. These assumptions must be confirmed for the regression model by analysing the residual plots (Hair et al., 2014). Linearity refers to the relationship between the dependent variable and the independent variables, which is assumed to be linear. Homoscedasticity assumes that the variance of the variables is equal across the dependent variable's range. The independence of the error terms assumes that each predicted value is independent and is unrelated to other predicted terms. The assumptions above may be checked using the residual plots generated from the regression model.

4.6.6. Multicollinearity

Multicollinearity refers to the correlation between independent variables within the model, where a high correlation between these variables reduces the ability of each variable to improve the prediction of the dependent variable (Iacobucci et al., 2016). A correlation matrix was generated for all the independent variables to initially assess the degree of multicollinearity present within the model. High correlation coefficients, greater than 0.9, indicate a high degree of collinearity (Hair et al., 2014).

Regression models that introduce moderating terms, in the form X_1X_2, calculated by multiplication of the predictor variables X_1 and X_2 suffer from inherent multicollinearity effects due to the correlation relationship between the moderator and predictor variables (Iacobucci et al., 2016). These effects may be reduced by first mean centring the predictor terms before multiplication without negatively effecting the regression model fit, R^2, allowing for a more accurate interpretation of the regression coefficients or beta values.

For each regression model, Variance Inflation Factors (VIF) were calculated (Hair et al., 2014). A VIF of 1.0 indicates no multicollinearity and increases as the multicollinearity increases. A cut-off value of 10.0 was used to reject variables from the regression model.

4.6.7. Significance Level and Sample Size

The minimum magnitude of effect detectable in the regression model is directly related to the number of independent variables, the sample size, and the significance level and statistical power required (Hair et al., 2014). A significance level of $\alpha = 0.05$ was used throughout the study, with a targeted statistical power level of 0.80. The study's regression models contain a maximum of 12 independent variables – including the independent variables, moderating effects, and control variables. A R^2 value of between 10-15% is considered a small effect, and as such was used a lower threshold for detectable prediction. Therefore, applying these constraints, a minimum sample size of approximately 120 is needed and a preferred sample of approximately 170 - 220 responses (Hair et al., 2014).

The sample size suggested above is further supported by Beavers et al. (2019), who recommend a sample size of at least 150 cases for multivariate methods. Therefore, the study targeted a minimum of 150 responses before completing the analysis.

4.7. Limitations of the Design

A non-probability sampling technique was used to collect the data, primarily relying on population members to participate voluntarily. This may have resulted in a sample that is more heterogenous than that of the population and is less representative of the population than if a probability sampling technique was used (Saunders & Lewis, 2018). However, the complexity of the population group and the lack of a complete sample frame made probability sampling impossible.

Although the study's cross-section design limits the research's ability to assign causality, the model was tested in the directions deduced from the existing literature and described in section **Error! Reference source not found.**. However, this design cannot exclude the possibility of reversed casual relationships.

4.8. Data Storage

The data collected during the research project will be stored electronically for a minimum of 10 years on a cloud storage platform, Microsoft OneDrive, managed by the researcher and backed up on a physical USB flash storage device.

5. Data Analysis and Results

This chapter outlines and summarises the results from the data analysis process described in chapter four. First, a description analysis of the sample is provided, followed by the reliability and validity analysis of the measurement scales used. The scales are then summarised using factor analysis, and a descriptive summary of the summated measurement scales is provided. Finally, the results of the hypothesis testing using hierarchical linear regression are presented. Unless otherwise stated, a confidence level of α = 0.05 was used throughout the analysis.

Due to the non-probabilistic sampling method, it was impossible to calculate how many potential respondents received a survey. However, the number is estimated to be in excess of 1000 likely respondents, from which, 211 survey responses were received.

5.1. Data Coding and Editing

The data was extracted from Google Forms in a CSV format and converted into an Excel spreadsheet. Of the responses received, seven did not meet the population criteria. They were removed – either the respondents had not completed a postgraduate programme at a South African business school or had not participated in a syndicate group during the programme. The remaining valid responses were then checked for completeness. Two further responses contained missing data and were removed. In total, 202 valid and complete responses were received and used in the analysis.

To make the dataset usable in SPSS, the dataset was cleaned, edited, and coded according to the code book rules in Appendix D. The responses to the five scale indicators which were reverse coded were reversed using the following formula $R = 8 - R_{reverse\ coded}$ such that 1 → 7, 2→6, 3 → 5 etc. The cleaned and coded dataset was then imported into SPSS v28.0.1 to complete the statistical data analysis.

5.2. Descriptive Statistics

5.2.1. Sample Demographics

The survey respondents were requested to answer questions describing their demographic characteristics. An option to provide an answer outside of the

prepopulated categories was included, unless the characteristic question was used as a screening measure. The table below outlines the sample's self-reported demographic characteristics.

Table 3

Sample Demographics

Measure	Category	N	%
Age	20-29	12	5.9%
	30-39	137	67.8%
	40-49	45	22.3%
	50-59	7	3.5%
	I would prefer not to specify	1	0.5%
Gender	Male	114	56.4%
	Female	85	42.1%
	Non-binary	1	0.5%
	I would prefer not to say	2	1.0%
Population Group	Black	103	51.0%
	White	51	25.2%
	Indian	21	10.4%
	Coloured	11	5.4%
	African	1	0.5%
	Mixed Race	1	0.5%
	I would prefer not to specify	14	6.9%
Institution	UP - GIBS	120	59.4%
	UCT - GSB	28	13.9%
	Wits Business School	19	9.4%
	Stellenbosch Business School	11	5.4%
	Rhodes University	7	3.5%
	Henley Business School	6	3.0%
	NMMU	6	3.0%
	MANCOSA	1	0.5%
	UFS	1	0.5%
	UNISA	1	0.5%
	I would prefer not to specify	2	1.0%
Highest qualification level	Post Graduate Diploma (NQF 8)	23	11.4%
	Masters (NQF 9)	177	87.6%
	PhD (NQF10)	2	1.0%
Year of graduation (expected)	2016	1	0.5%
	2017	1	0.5%
	2018	5	2.5%
	2019	6	3.0%

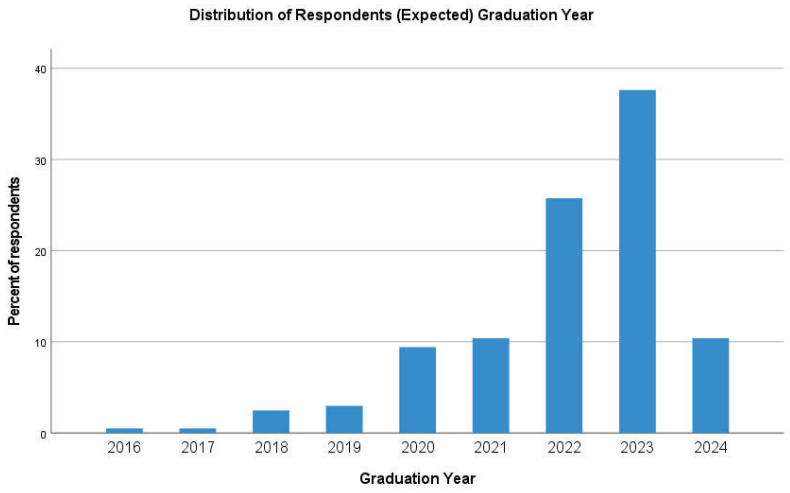
	2020	19	9.4%
	2021	21	10.4%
	2022	52	25.7%
	2023	76	37.6%
	2024	21	10.4%
Syndicate Tenure	1 - 4 weeks	6	3.0%
	1 - 3 months	11	5.4%
	3 - 6 months	25	12.4%
	6 - 12 months	116	57.4%
	more than a year	44	21.8%

Note. n=202

The majority, 68%, of respondents were between 30-39 years old, with the second largest group between the ages of 40-49. MBA programmes in South Africa usually require a minimum of an honours-level degree, which takes four years to complete, and a further three to five years of working experience at a management level before applicants are considered. These requirements mean that the majority of MBA candidates only become eligible to join the programme in their early 30s. The majority of the candidates expect to graduate between 2022 & 2024. The survey asked questions relating to syndicate experiences during the MBA programme, and it would be significantly more difficult for graduates to answer after a prolonged period after graduation. Consequently, potential respondents are more likely to find the survey relevant if they have recently graduated. Therefore, the sample's age distribution fits the expected population distribution.

Figure 5

Sample's (expected) graduation year

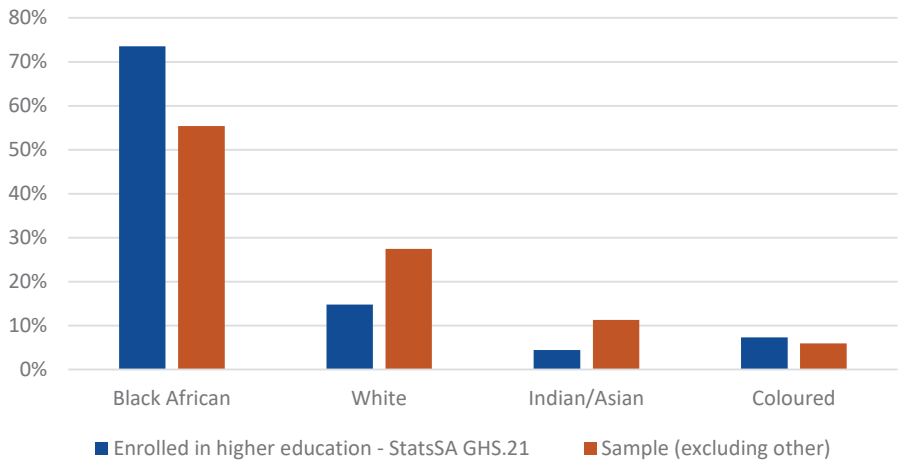


Although progress is being made towards equal attendance, internationally, only 41% of students attending business schools are female (Reilly, 2021). The gender demographics of the sample match this finding closely, with 42% of respondents identifying as female. The sample is therefore expected to represent the population's demographics in this regard.

A comparison of the population group demographics to the higher education participation data published by StatsSA (2021) shows that the sample's population group profile is skewed towards white and Indian respondents. StatsSA found a similar, albeit less pronounced, skewness when comparing higher education to that of the South African population. However, given the historical inequality in South Africa and the resource expense related to completing an MBA, this is likely representative of the study's population.

Figure 6

Comparison of Population Groups within the Sample to StatsSA's Higher Education Participation Rate



Note. Adapted from the "*General Household Survey: 2021*" by Statistics South Africa, 2021, p. 19. South African Department of Statistics. https://www.statssa.gov.za/?page_id=1854&PPN=P0318.
Categories "other" and "I would prefer not to specify" were excluded from the analysis as there was no comparable data within the StatsSA dataset.

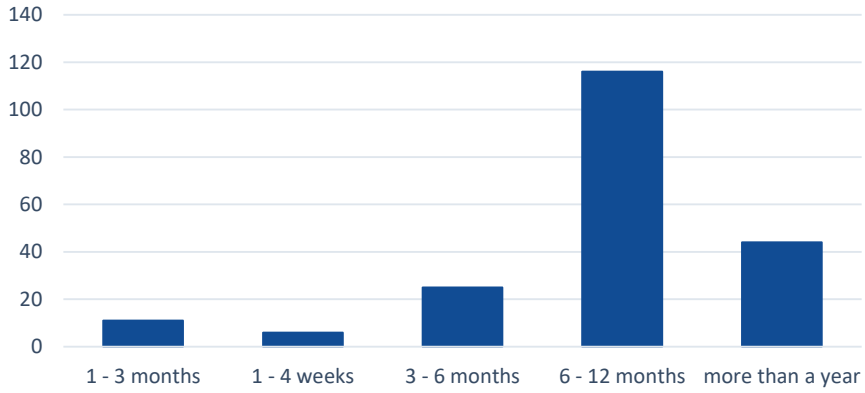
Fifty-nine percent of the respondents attended the Gordon Institute of Business Science; this was skewed by the researcher's personal network within the organisation and by distributing the survey through large messaging groups set up

by GIBS students. Although the population included all postgraduate business programmes, 88% of the respondents' highest level of education was a master's level (NQF 9) programme. Masters students make up the majority of business school students, and this finding aligns with the expected demographics of the population. While completing their studies, all valid respondents took part in syndicate work, with more than half, 57%, basing their responses on syndicates that worked together for 6-12 months.

Given the findings above, the sample of respondents is expected to be representative of the study's population.

Figure 7

Tenure of the Respondent's Syndicate Groups



5.2.2. Descriptive Summary of Individual Scale Indicators

A total of 25 indicators were used to measure the six constructs used in the hypothesis model. These were named according to their source scale and a descriptive summary may be found in Appendix E.

5.3. Validity and Reliability of Scales

The validity and reliability of each measurement scale were assessed individually. Using two-tailed Pearson correlations, correlation matrices were calculated for each measurement scale and their summed item-total score. These matrices may be seen in Table 4. One indicator from the TMX scale, TMX07, showed a weak correlation (<0.3) with the other indicators in the TMX scale, and was removed from further analysis to improve the validity of the scale (Hair et al., 2014).

Table 4

Convergent Validity Correlation Matrix

Scale	Indicator	Pearson Correlation Matrix			
		AF01	AF02	AF03	AF_sum
Affective Commitment	AF01	--			
	AF02	.723**	--		
	AF03	.755**	.836**	--	
	AF_sum	.891**	.931**	.939**	--
		CP01	CP02	CP03_n	CP_sum
Conflict - Process	CP01	--			
	CP02	.688**	--		
	CP03_n	.553**	.603**	--	
	CP_sum	.855**	.881**	.849**	--
		CR01	CR02	CR03_n	CR_sum
Conflict – Relationship	CR01	--			
	CR02	.436**	--		
	CR03_n	.433**	.673**	--	
	CR_sum	.760**	.856**	.851**	--
		CT01	CT02	CT03_n	CT_sum
Conflict – Task	CT01	--			
	CT02	.624**	--		
	CT03_n	.410**	.492**	--	
	CT_sum	.831**	.865**	.763**	--

Scale	Indicator	Pearson Correlation Matrix										
		VC01	VC02	VC03	VC_sum							
Voice Climate	VC01	--										
	VC02	.332**	--									
	VC03	.301**	.586**	--								
	VC_sum	.677**	.846**	.807**	--							
		TMX01	TMX02	TMX03	TMX04	TMX05	TMX06	TMX07_n	TMX08_n	TMX09	TMX10	TMX_sum
TMX	TMX01	--										
	TMX02	.427**	--									
	TMX03	.148*	.176*	--								
	TMX04	.290**	0.128	.180*	--							
	TMX05	.267**	.372**	.340**	.271**	--						
	TMX06	0.088	.181**	.388**	0.128	.496**	--					
	TMX07_n	-0.033	0.034	0.035	0.024	0.123	0.056	--				
	TMX08_n	.182**	0.040	0.065	.305**	0.039	0.040	.171*	--			
	TMX09	.280**	.314**	.151*	.311**	.188**	0.027	0.036	.200**	--		
	TMX10	.321**	.373**	0.083	.338**	.239**	0.136	0.086	.204**	.277**	--	
	TMX_sum	.564**	.558**	.476**	.575**	.628**	.489**	.336**	.467**	.504**	.591**	--

Note. n=202.

**Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed).

Table 5

Scale Reliability

Scale	Number of Indicators	Cronbach's Alpha
Affective Commitment	3	0.91
Conflict- Process	3	0.82
Conflict- Relationship	3	0.76
Conflict- Task	3	0.76
TMX	9	0.71
Voice Climate	3	0.68

Note. n=202.

As shown in Table 5, all scales except the perceived voice climate scale demonstrated reliability with a Cronbach's alpha greater than 0.7. The voice climate scale produced a lower reliability score than expected, with a Cronbach's alpha of α = 0.68. Compared to the scale's source study, which reported an α = 0.83 (Ohana & Stinglhamber, 2019), this is poor. A cut-off limit between 0.6 and 0.7 is generally considered good practice, with scores between 0.6 and 0.7 considered marginally reliable (Hair et al., 2014).

Tavakol and Dennick (2011) cite two causes for a low-reliability score. The first is due to the poor correlation between the indicators within the scale. The second factor is the total number of questions within the scale, where fewer questions result in a lower score. Indicator VC01 has the weakest correlation with the other two indicators within the scale, as shown in Table 4, and removing it may increase the scale's reliability. However, due to the limited number of scale indicators, removing VC01 does not improve the scale's reliability, as it also further reduces the total number of questions.

For the purposes of this study, and due to the limited time available for further data collection, the scale was therefore accepted at 0.68. The lower reliability may have been due to some contextual factors, and it would be prudent to conduct further analysis of this scale, potentially adding additional indicator questions, before using it to conduct further research.

5.3.1. Factor Analysis

Confirmatory Factor Analyses (CFA) were initially attempted for each scale; however, the model fit was not successful in all scales. This was likely due to the

associated statistical tests being sample size sensitive (e.g. Chi-square test) and requiring larger samples than the study collected (Hair et al., 2014). The CFA model fit results may be viewed in Appendix F.

An Exploratory Factor Analysis (EFA) was therefore completed for each scale. The EFA used an eigenvalue of 1 to select the number of factor groups to extract from each scale (Beavers et al., 2019). Two tests were performed to confirm the assumptions required for factors analysis, a summary of which may be found in the tables below. All six scales produced a statistically significant result when the correlations between the indicators were tested using the Bartlett test of sphericity, indicating that the factor analyses were appropriate. A Kaiser-Meyer-Olkin (KMO) Test for Sampling Adequacy was performed for each scale; all scales passed with a result greater than the cut-off of 0.5, again indicating that the factor analyses are appropriate.

Table 6

Rotated Component Matrix for TMX Scale

Scale	KMO	Bartlett's test of sphericity	Indicator	Factor 1	Factor 2	Factor 3	Communality
TMX	0.739	<0.001	TMX01	0.709	0.080	0.152	0.53
			TMX02	0.809	0.209	-0.180	0.73
			TMX03	0.031	0.722	0.143	0.54
			TMX04	0.273	0.201	0.698	0.60
			TMX05	0.361	0.721	0.008	0.65
			TMX06	0.011	0.841	0.006	0.71
			TMX08	0.044	-0.015	0.814	0.66
			TMX09	0.552	0.008	0.353	0.43
			TMX10	0.629	0.070	0.283	0.48

Note. Indicator TMX07 was removed due to a weak correlation (<0.3) with other indicators in the scale, see Table 4.

The indicators for affective commitment, process conflict, task conflict, relationship conflict and voice climate all loaded successfully onto the expected single factor. However, TMX loaded onto three factors. These factors were named TMX_F1, TMX_F2, and TMX_F3.

The factorisation of TMX explained 59.33% of the variance with three factors at a cut-off eigen value of 1. The communality, or the total variance of each variable

explained by the factorisation, was greater than 0.5 for all variables except TMX09 and TMX10. However, after being rotated using a varimax rotation, the matrix's loadings were significant and greater than 0.5, with little cross-loading onto other factors. As such, the two variables with lower-than-expected communality were kept within the factorisation (Hair et al., 2014).

Table 7

Final Exploratory Factor Analysis Summary

Scale	KMO	Bartlett's test of sphericity	Indicator	Factor	Factor Loading
Affective Commitment	0.739	<0.001	AF01	AF_F	0.894
			AF02	AF_F	0.928
			AF03	AF_F	0.940
Conflict- Process	0.706	<0.001	CP01	CP_F	0.869
			CP02	CP_F	0.891
			CP03	CP_F	0.827
Conflict- Relationship	0.650	<0.001	CR01	CR_F	0.728
			CR02	CR_F	0.869
			CR03	CR_F	0.867
Conflict-Task	0.658	<0.001	CT01	CT_F	0.834
			CT02	CT_F	0.871
			CT03	CT_F	0.754
Voice Climate	0.607	<0.001	VC01	VC_F	0.643
			VC02	VC_F	0.848
			VC03	VC_F	0.834
TMX	0.707	<0.001	TMX01	TMX_F1	0.709
			TMX02	TMX_F1	0.809
			TMX03	TMX_F2	0.722
			TMX04	TMX_F3	0.698
			TMX05	TMX_F2	0.721
			TMX06	TMX_F2	0.841
			TMX08	TMX_F3	0.814
			TMX09	TMX_F1	0.552
			TMX10	TMX_F1	0.629

Note. Indicator TMX07 was removed due to a weak correlation (<0.3) with other indicators in the scale, see Table 4

The final revised exploratory factor analysis is summarised in Table 7, showing both the test results as well as the loadings for each scale and their associated indicators. The indicators associated with TMX_F1 relate to the feedback culture and recognised potential within the exchange. The TMX_F2 indicators relate to the team

member's willingness to help on tasks outside of their responsibilities, while TMX_F3 relate to how other members in the group perceived and addressed the team member's needs.

5.3.1. Summary of Validity and Reliability Results

The measurement scales for affective commitment, process conflict, relationship conflict and task conflict all demonstrated reliability and validity without any modifications to the scale indicators. However, the Voice Climate scale produced worse-than-expected reliability, with a Cronbach alpha of 0.68. Nevertheless, due to the project's time constraints, it was included in the analysis as a marginally reliable scale.

Furthermore, the scale used to measure team-member exchange (TMX) contained a problematic indicator, TMX07, as it presented a weak correlation (<0.3) to the other indicators within the scale. It was removed from the analysis to improve the scale's validity and reliability. TMX07's removal is likely to have somewhat reduced the scale's dimensionality, and three factors were produced from the measurement scale through the exploratory factor analysis instead of the expected single factor. This is likely due to the removal of TMX07 prior to the factor analysis. If time allowed, a deeper analysis of scale indicators would have been warranted to better understand why this indicator failed and why three factors were produced.

5.4. Summated Scales

5.4.1. Descriptive Summary

The scales were reduced using the factors determined by the EFA above by taking the average response of the indicators assigned to each factor. Therefore, the maximum range for each factor is 1 – 7. Where one represents a low level and seven is a high level. For example, CT_F of one represents the lowest level of task conflict, while a seven represents the highest level.

A descriptive summary of the summated scales may be found in Table 8 and Figure 8. Respondents experienced a range of affective commitment and conflict levels within their teams. However, with a mean response of 5.11, the respondents, on average, felt moderate to high affective commitment towards their syndicates. Similarly, both voice climate and team-member exchange showed high levels, with

a mean response of 5.36 and 5.04, respectively. However, conflict was more moderately experienced with means scores between 3.43 and 4.23. On average, there was more task conflict reported than either relationship conflict or process conflict within the groups.

Table 8

Summated Scale Descriptive Summary

Factor	Median	Mean	95% CI for mean		Standard deviation	Min	Max
			Lower	Upper			
AF_F	5.33	5.11	4.89	5.34	1.62	1.00	7.00
CP_F	3.33	3.43	3.22	3.63	1.47	1.00	6.67
CR_F	3.67	3.73	3.51	3.94	1.56	1.00	7.00
CT_F	4.17	4.23	4.04	4.43	1.42	1.00	7.00
VC_F	5.67	5.36	5.21	5.51	1.09	2.00	7.00
TMX_F1	5.25	5.10	4.97	5.24	0.99	1.50	7.00
TMX_F2	5.67	5.30	5.14	5.46	1.12	2.00	7.00
TMX_F3	5.00	4.71	4.53	4.89	1.31	1.00	7.00

Note. n=202

5.4.2. Summated Scale Correlation Matrix

Table 9 shows the correlation between the summated scale variables as well as the metric control variables used in the multiple regression analysis. The dependent variables for the three conflict types, CP_F, CR_F and CT_F, correlate moderately with the dependent variable, AF_F. The moderating variables, VC_F, TMX_F1, and TMX_F3, also show moderate correlations with AF_F. However, there is a comparatively weak correlation between TMX_F2 and AF_F.

The control variables show significant correlations with AF; however, the magnitude is small ($r < 0.2$). Similarly, tenure has a significant but weak correlation to VC_F. The strong correlation between conflict types increases the risk of multicollinearity if used together in the same regression model and warrants further diagnostics within the models using Variance Inflation Factors.

Table 9

Summated Scale (Factors) Correlation Matrix

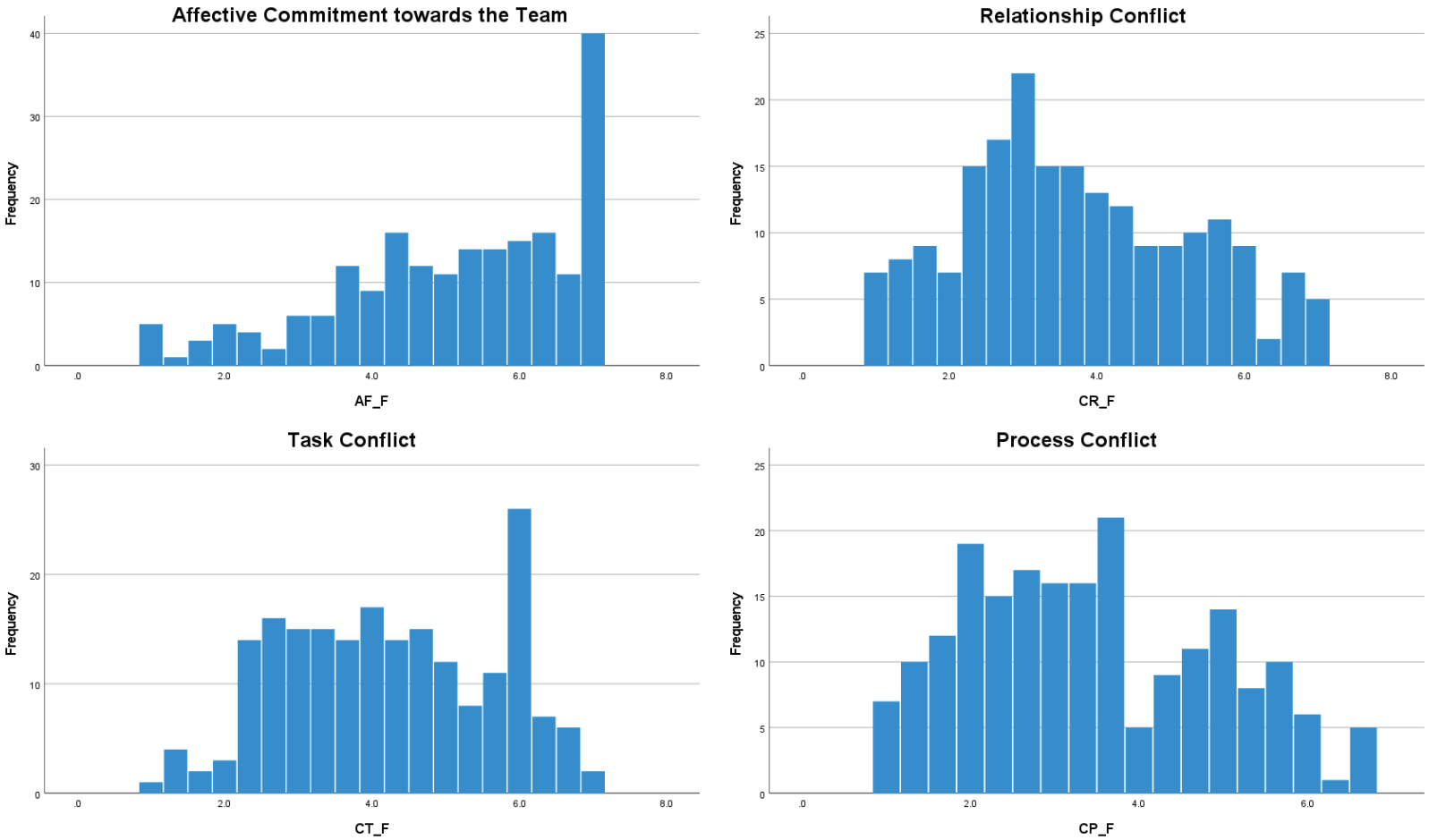
	Pearson Correlation Matrix									
	AF_F	CP_F	CR_F	CT_F	VC_F	TMX_F1	TMX_F2	TMX_F3	Age	Tenure
AF_F	--									
CP_F	-.465**	--								
CR_F	-.521**	.718**	--							
CT_F	-.393**	.697**	.726**	--						
VC_F	.433**	-.316**	-.400**	-.359**	--					
TMX_F1	.438**	-0.103	-.221**	-.231**	.467**	--				
TMX_F2	.139*	-0.049	-0.027	-0.068	.191**	.306**	--			
TMC_F3	.521**	-.451**	-.591**	-.527**	.496**	.367**	.181**	--		
Age	.151*	-0.131	-0.088	-0.130	0.115	0.075	-0.072	0.036	--	
Tenure	.184**	-0.122	-0.038	-0.095	.166*	0.111	0.126	0.109	0.099	--

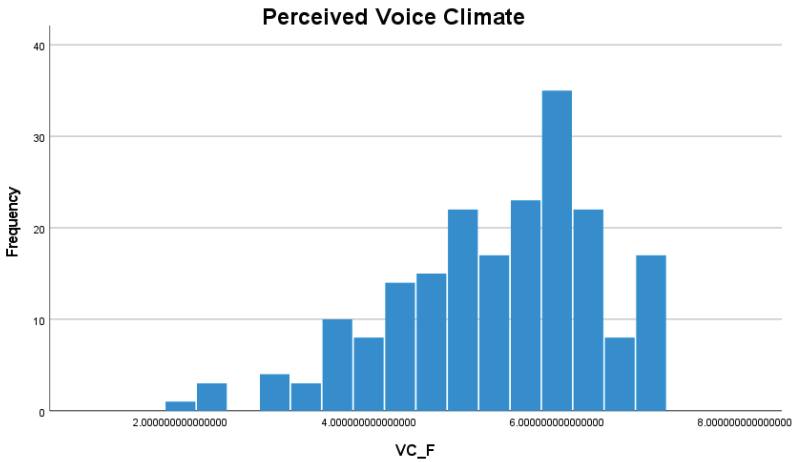
Note. n=202.

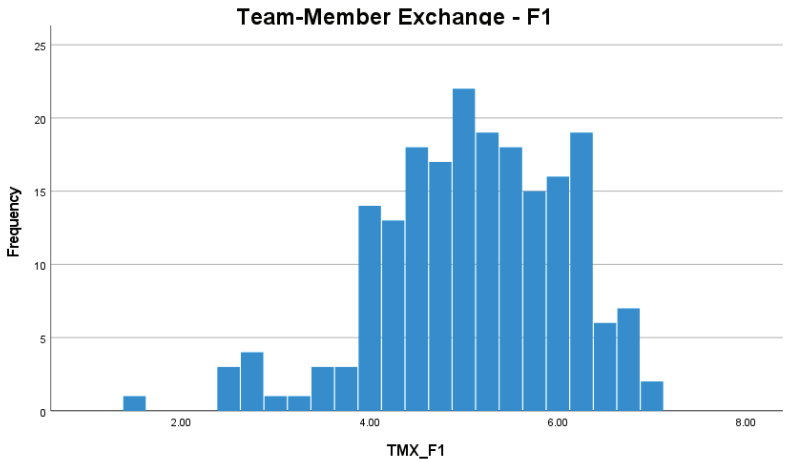
**Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed).

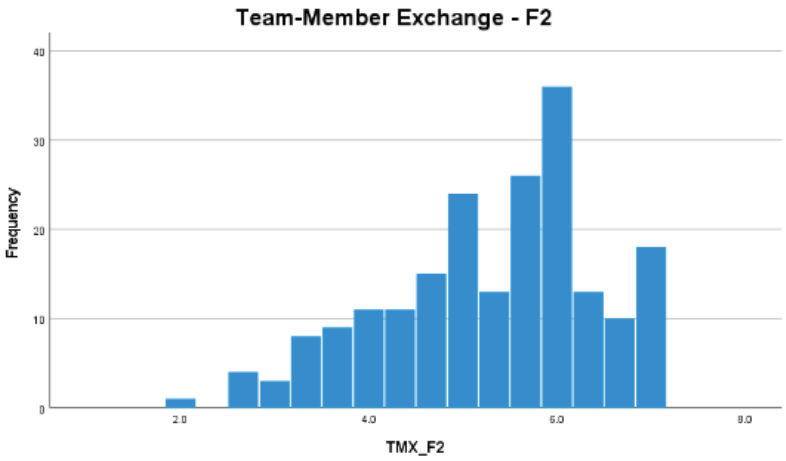
Figure 8

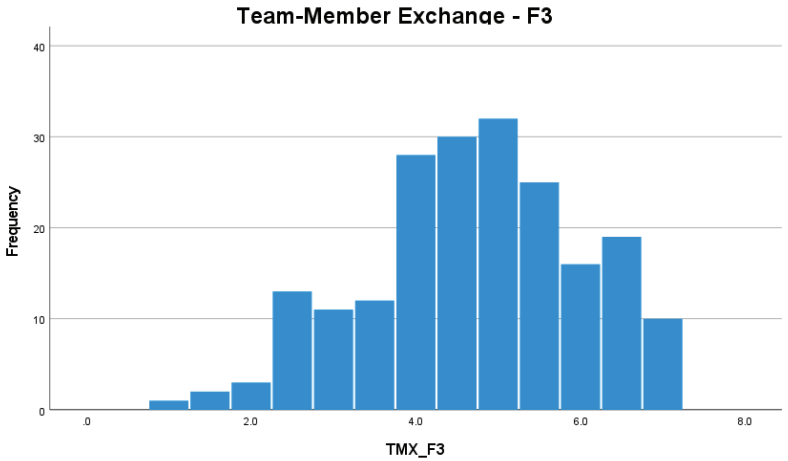
Frequency Distribution Graphs of Summated Scales




Perceived Voice Climate
Frequency
VC_F


Team-Member Exchange - F1
Frequency
TMX_F1


Team-Member Exchange - F2
Frequency
TMX_F2


Team-Member Exchange - F3
Frequency
TMX_F3

5.5. Hypothesis Testing

The hypotheses were tested using hierarchical linear regression as outlined in section 4.6.4. All tests were conducted to a significance level of $\alpha = 0.05$. This section follows with a summary, per hypothesis, of each model used in the testing, either as a reference or directly as a hypothesis test. Finally, a summary of the hypothesis test results is presented at the end of this section.

5.5.1. Assumptions of Linear Regression Modelling

As discussed in section 4.6.5, the assumptions of linear regression were tested and found to be valid using the regression plots generated by SPSS during the linear regression analysis for each regression model. These plots and the relevant discussion may be found in Appendix G.

5.5.2. Control Model

Following the approach used by Wu et al. (2018), the predictive characteristics of the control variables were incorporated into a control model as a basis for comparison for further models. The two interval data types - age and tenure - were incorporated directly into the regression. However, regression models require that categorical variables be incorporated as binary values; this necessitated using dummy variables for the three categorical variables - institution, gender, and population group. To simplify the model and reduce the required number of dummy variables, categories with low response rates, less than 10%, were combined into a single ‘other’ category, as shown in Table 10.

Table 11 shows the coding used to create the dummy variables; the categories with the highest response rates were used as the reference variable and were coded as 0 on all dummy variables.

Table 10

Categories Used in the Regression Model 0

Measure	Category	N	%
Gender	Male	114	56.4%
	Female	85	42.1%
	Other	3	1.5%
	Non-binary	1	0.5%
	I would prefer not to say	2	1.0%
Institution	UP - GIBS	120	59.4%
	UCT - GSB	28	13.9%
	Other	54	26.7%
	Wits Business School	19	9.4%
	Stellenbosch Business School	11	5.4%
	Rhodes University	7	3.5%
	Henley Business School	6	3.0%
	NMMU	6	3.0%
	MANCOSA	1	0.5%
	UFS	1	0.5%
	UNISA	1	0.5%
	I would prefer not to specify	2	1.0%
Population group	Black	103	51.0%
	White	51	25.2%
	Indian	21	10.4%
	Other	27	13.3%
	Coloured	11	5.4%
	Mixed Race	1	0.5%
	African	1	0.5%
	I would prefer not to specify	14	6.9%

Note. n= 202

Table 11

Coding for Dummy Variables

Measure	Dummy Variables		
Gender			
	Gender_Female	Gender_Other	
Male	0	0	
Female	1	0	
Other	0	1	
Institution			
	Institution_UCT	Institution_Other	
GIBS	0	0	
UCT	1	0	
Other	0	1	
Population group			
	pg_White	pg_Indian	pg_Other
Black	0	0	0
White	1	0	0
Indian	0	1	0
Other	0	0	1

Using SPSS's linear regression functionality, the control variables were modelled against the dependent variable, affective commitment. The regression model, summarised in 106Appendix H, was statistically valid ($p < 0.001$) and could predict the dependent variable at $R^2=0.190$. Three variables, tenure, pg_white and gender_female, had statistically significant predictive power against that of the model's reference values, gender_male & pg_black. However, institution, age, pg_Indian, pg_other, and gender_other were not statistically valid predictors and were removed using a stepwise approach. The final control model was rerun, the results of which were summarised in Table 12. The standardised beta values for the three significant variables, tenure, pg_white and gender_female, are 0.170, -0.239, and -0.285, respectively.

Table 12

Summary of Results of the Control Regression Model

Variable	Model 0	
	Control Model	
	Standardised β	VIF
Control		
Tenure	0.170**	1.007
pg_white	-0.239**	1.057
Gender_female	-0.285**	1.050
Results		
R^2	0.142**	
Adj. R^2	0.129**	
F Change	--	
Sig. F. Change	--	

Note.
*p<0.05; **p<0.01

5.5.3. Hypothesis 1

5.5.3.1. Hypotheses 1a-d

Hypothesis 1_a proposes that there is a negative relationship between process conflict (CP_F) and affective commitment toward the team (AF_F). Model 1 introduces the additional independent variable CP_F into the control model, Model 0. The predictive power of the two models is compared through an F-test to which the alternative hypothesis is that there is a significant difference in the predictive power of the two models. The alternative hypothesis is accepted when $p<0.05$ and suggests the additional variable(s) has/have improved the model.

The model produced a significant F-change of 55.743 at $p<0.001$ and had an R^2 of 0.331, and the F-test's alternative hypothesis was accepted. The standardised beta coefficient of the CP_F term was significant and negative ($\beta=-0.440$, $p<0.001$), showing that an increase in process conflict predicts a decrease in affective commitment towards the team. Therefore, hypothesis 1_a has been accepted as true within this sample - process conflict has a significant relationship with affective commitment towards the team, and this relationship is negative.

Table 13

Summary of Results of Regression Models for Hypothesis 1a-d

Variable	Model 1 H_{1a} (CP – AF)		Model 2 H_{1b} (CR – AF)		Model 3 H_{1c} (CT – AF linear)		Model 4 H_{1d} (CT – AF Curvilinear)	
	Standardised β	VIF	Standardised β	VIF	Standardised β	VIF	Standardised β	VIF
Primary Effects								
CP_F	-0.440**	1.022	-	-				
CR_F	-	-	-0.480**	1.019				
CT_F					-0.376**	1.013	-0.378**	1.013
CT_F^2							-0.057	1.009
Control								
Tenure	0.119*	1.021	0.155**	1.008	0.136*	1.016	0.137*	1.017
pg_White	-0.203**	1.064	-0.191**	1.067	-0.220**	1.060	-0.216**	1.064
Gender_Female	-0.289**	1.050	-0.233**	1.062	-0.293**	1.051	-0.289**	1.056
Model Summary								
R^2	0.331**		0.368**		0.282**		0.285**	
Adj. R^2	0.318**		0.355**		0.267**		0.267**	
F Change	55.74**		70.48**		38.38**		0.90	
Sig. F. Change	< 0.001		< 0.001		< 0.001		0.344	

Note. Models 1, 2, and 3 were compared to Model 0 and the R^2 & F change values reflect the model improvement from the control model. Model 4 was compared to Model 3.

*p<0.05; **p<0.01

Hypotheses 1b and 1c were tested against the control model using the same method. Both model 2 and model 3 showed a significant improvement over model 0. Model 2 produced an F-change of 55.74 at $p>0.001$ and an R^2 of 0.427, while model 3 produced an F-change of 38.38 at $p<0.001$ and an R^2 of 0.335. The beta values for the CR_F and CT_F terms were significant in their respective models at -0.460 and -0.345, respectively. Both being negative and significant, H_{1b} and H_{1c} were accepted as true within this sample – relationship and task conflict have a negative relationship to affective commitment towards the team.

Hypothesis 1_d proposed that the negative relationship between task conflict and affective commitment towards the team is curvilinear and contains an inflection point such that the highest affective commitment is obtained at a moderate level of conflict. This was tested by introducing a squared term, CT_F^2, into model 3 and comparing it against model 3 for improvement. To reduce the micro-multicollinearity effects, the predictor variable, CT_F, was first mean-centred by subtracting the sample's mean from each response before squaring each response to create the CT_F^2 term (Iacobucci et al., 2016).

The new model, model 4, produced an F-change of 0.90 which was insignificant at $p=0.344$. The introduction of the square term did not create a significant improvement. Consequently, hypothesis 1d was not supported, and the relationship between task conflict and affective commitment was not found to be curvilinear.

The control variables retained their significant effects in all four models used in hypothesis 1. The squared term, CT_F^2, was not found to be significant and was, therefore, not used in any subsequent analyses.

5.5.3.2. Hypothesis 1e

All three conflict types were added to the control model to compare their relative predictive strengths. The model fit was significant with an $R^2=0.386$. While some increased multicollinearity was present, it was well below the VIF threshold of 10.0. The regression coefficient weights for process and relationship conflict were negative and significant at $p<0.05$; however, the coefficient for task conflict was insignificant in this model. This provides supporting evidence for hypothesis 1e which proposed that task conflict has the weakest relationship to affective commitment towards the

team of three types of conflict. Hypothesis 1e was therefore accepted as true within this sample.

Table 14

Summary of Results of Regression Models for Hypothesis 1e

Variable	Model 5 H_{1e}	
	Standardised β	VIF
Independent Variables		
CP_F	-0.198*	2.431
CR_F	-0.347**	2.718
CT_F	0.013	2.479
Control		
Tenure	0.137*	1.030
pg_White	-0.189**	1.069
Gender_Female	-0.249**	1.091
Results		
R^2	0.386**	
Adj. R^2	0.367**	
F Change	25.78**	
Sig. F. Change	<0.001	

*p<0.05; **p<0.01

5.5.4. Hypothesis 2

Hypothesis 2 posits that TMX moderates the relationship between conflict and affective commitment towards the team. The hypotheses were tested by comparing a regression model containing only the primary independent variables, TMX and the conflict type, to a second model containing both the primary and moderating effects. Again, the moderating effects were generated by first mean-centring the two predictor variables before multiplying them to create the moderating variable.

5.5.4.1. Hypothesis 2a

Hypothesis 2a suggests that TMX moderates the relationship between process conflict and affective commitment towards the team. Model 6 introduces the primary effects of the three TMX factors into model 1 and compares the two models using an F-test. A significant improvement in the model was found with R^2 =0.494 and an F change of 20.79 at p<0.001. The significant and positive beta value for the TMX_F1 and TMX_F2 terms shows that high-quality TMX_F1 and TMX_F2 increase affective

commitment towards the team. However, TMX_F2 did not produce a significant beta and is unrelated to AF_F. The introduction of the moderating terms in model 7 did not improve the model's predictive power compared to model 6 (R^2=0.502, F change 1.04 at p=0.377). Hypothesis 2a is therefore not supported - TMX was not demonstrated to moderate the relationship between process conflict and affective commitment.

Table 15

Summary of Results of Regression Models for Hypothesis 2a

Variable	Model 6 CP TMX w/o mod effects		Model 7 H_{2a} (CP x TMX)	
	Standardised β	VIF	Standardised β	VIF
Independent Variables				
CP_F	-0.316**	1.279	-0.313**	1.304
TMX_F1	0.296**	1.266	0.292**	1.296
TMX_F2	-0.014	1.124	-0.003	1.178
TMX_F3	0.230**	1.476	0.227**	1.484
Moderating Effects				
TMX_F1xCP_F			-0.004	1.273
TMX_F2xCP_F			0.015	1.135
TMX_F3xCP_F			0.092	1.305
Control				
Tenure	0.083	1.039	0.081	1.043
pg_White	-0.131*	1.097	-0.119*	1.122
Gender_Female	-0.258**	1.064	-0.241**	1.122
Results				
R^2	0.494**		0.502**	
Adj. R^2	0.476**		0.476**	
F Change	20.79**		1.04	
Sig. F. Change	<0.001		0.377	

Note. Model 6 was compared to model 1. Model 7 was compared to Model 6
*p<0.05; **p<0.01

5.5.4.2. Hypothesis 2b

The moderating effects of TMX on the relationship between relationship conflict and affective commitment towards the team were tested by comparing models seven and eight.

Model 8 introduces the primary effects of the two TMX factors into Model 2 and tests

the improvement created by the introduction of the direct effects by comparing the two models using an F-test. A significant improvement in the model was found with R^2 =0.479 and an F change of 13.71 at a p-value of <0.001. Significant and positive regression coefficients were present for the TMX_F1, β= 0.263, and TMX_F3, β= 0.194, terms showing that high-quality TMX_F1 and TMX_F3 predict increased affective commitment towards the team. However, TMX_F2 did not produce a significant regression coefficient and is not related to AF_F.

Introducing the moderating terms in Model 9 improved the model's predictive power compared to Model 8, R^2=0.503, F change of 3.07 at p = 0.029. Hypothesis 2b is therefore supported – TMX was demonstrated to moderate the relationship between relationship conflict and affective commitment.

Table 16

Summary of Results of Regression Models for Hypothesis 2b

Variable	Model 8 CR TMX w/o mod effects		Model 9 H_{2b} (CR x TMX)	
	Standardised β	VIF	Standardised β	VIF
Independent Variables				
CR_F	-0.314**	1.562	-0.303**	1.578
TMX_F1	0.263**	1.260	0.271**	1.343
TMX_F2	0.005	1.135	0.024	1.176
TMX_F3	0.194**	1.740	0.166*	1.778
Moderating Effects				
TMX_F1xCR_F			-0.023	1.318
TMX_F2xCR_F			-0.015	1.102
TMX_F3xCR_F			0.169**	1.305
Control				
Tenure	0.115*	1.031	0.116*	1.035
pg_White	-0.135*	1.097	-0.116*	1.112
Gender_Female	-0.226**	1.065	-0.200**	1.097
Results				
R^2	0.479**		0.503**	
Adj. R^2	0.460**		0.477**	
F Change	13.71**		3.07*	
Sig. F. Change	<0.001		0.029	

Note. Model 8 was compared to Model 2. Model 9 was compared to Model 8
*p<0.05; **p<0.01

5.5.4.3. Hypothesis 2c

Table 17

Summary of Results of Regression Models for Hypothesis 2c

Variable	Model 10 CT TMX w/o mod effects		Model 11 H_{2c} (CT x TMX)	
	Standardised β	VIF	Standardised β	VIF
Independent Variables				
CT_F	-0.169**	1.403	-0.176**	1.410
TMX_F1	0.263**	1.263	0.291**	1.452
TMX_F2	-0.014	1.127	-0.005	1.196
TMX_F3	0.292**	1.567	0.273**	1.596
Moderating Effects				
TMX_F1xCT_F			-0.103	1.358
TMX_F2xCT_F			0.012	1.116
TMX_F3xCT_F			0.169**	1.279
Control				
Tenure	0.102	1.033	0.092	1.044
pg_White	-0.143*	1.100	-0.120*	1.134
Gender_Female	-0.255**	1.068	-0.225**	1.120
Results				
R^2	0.436**		0.461**	
Adj. R^2	0.416**		0.433**	
F Change	17.68**		2.93*	
Sig. F. Change	<0.001		0.035	

Note. Model 10 was compared to Model 3. Model 11 was compared to Model 10
*p<0.05; **p<0.01

Hypothesis 2c tests the moderating effects of TMX on the relationship between task conflict and affective commitment towards the team. Given that the curvilinear relationship for task conflict was disproven by hypothesis 1d, hypothesis 2c was tested against the linear model of the task conflict relationship modelled in Model 3.

Model 10 introduces the primary effects of the three TMX factors into Model 3 and compares the two models using an F-test. A significant improvement in the model was found with R^2 =0.436 and an F-change of 17.68 at p <0.001. Significant and positive regression coefficients were present for the TMX_F1, β= 0.263, and TMX_F3, β= 0.292, terms showing that high-quality TMX_F1 and TMX_F3 predict increased affective commitment towards the team. However, TMX_F2 did not

produce a significant regression coefficient and is not related to AF_F.

The introduction of the moderating terms in model 11 improved the model's predictive power compared to Model 10, R^2=0.461, F change of 2.93 at p = 0.035. Hypothesis 2c is therefore supported - TMX was demonstrated to moderate the relationship between task conflict and affective commitment towards the team.

5.5.5. Hypothesis 3

Hypothesis 3 asserts that the perceived voice climate moderates the relationship between conflict and affective commitment towards the team. The hypotheses were tested by comparing a regression model containing only the primary independent variables, VC_F and the conflict type, to a second model containing both the primary and moderating effects.

5.5.5.1. Hypothesis 3a

Table 18

Summary of Results of Regression Models for Hypothesis 3a

Variable	Model 12 CP VC w/o mod effects		Model 13 H_{3a} (CP x VC)	
	Standardised β	VIF	Standardised β	VIF
Independent Variables				
CP_F	-0.346**	1.127	-0.350**	1.130
VC_F	0.310**	1.133	0.138	5.936
Moderating Effects				
VC_FxCP_F			0.190	5.779
Control				
Tenure	0.078	1.041	0.075	1.042
pg_White	-0.214**	1.065	-0.207**	1.074
Gender_Female	-0.289**	1.050	-0.277**	1.072
Results				
R^2	0.416**		0.422**	
Adj. R^2	0.401**		0.404**	
F Change	28.53**		2.10	
Sig. F. Change	<0.001		0.149	

Note. Model 12 was compared to Model 1. Model 13 was compared to Model 12.
*p<0.05; **p<0.01

Hypothesis 3a tests the moderating effects of perceived voice climate on the relationship between process conflict and affective commitment towards the team.

Model 12 introduces the primary effect VC_F into model 1 and compares the two models using an F-test. A significant improvement in the model was found with R^2 = 0.416 and an F change of 28.53 at p<0.001. The significant and positive beta value, β=0.310, for the VC_F term proves that a stronger perceived voice climate directly increases affective commitment towards the team.

However, introducing the moderating term in model 13 did not improve the model's predictive power when compared to model 12, R^2=0.422, F-change 2.10 at p = 0.149. Hypothesis 3a is therefore not supported - perceived voice climate was not demonstrated to have a moderating effect on the relationship between process conflict and affective commitment.

5.5.5.2. Hypothesis 3b

Table 19

Summary of Results of Regression Models for Hypothesis 3b

Variable	Model 14 CR VC w/o mod effects		Model 15 H_{3b} (CR x VC)	
	Standardised β	VIF	Standardised β	VIF
Independent Variables				
CR_F	-0.374**	1.217	-0.365**	1.227
VC_F	0.264**	1.229	0.063	6.594
Moderating Effects				
VC_FxCR_F			0.222	6.574
Control				
Tenure	0.114*	1.037	0.115*	1.038
pg_White	-0.204**	1.071	-0.195**	1.080
Gender_Female	-0.245**	1.064	-0.235**	1.078
Results				
R^2	0.425**		0.432**	
Adj. R^2	0.410**		0.415**	
F Change	19.33**		2.59	
Sig. F. Change	<0.001		0.110	

Note. Model 14 was compared to Model 2. Model 15 was compared to Model 14.
*p<0.05; **p<0.01

Hypothesis 3b asserts that perceived voice climate will moderate the relationship between relationship conflict and affective commitment towards the team.

Model 14 introduces the primary effect VC_F into model 2 and compares the two models using an F-test. A significant improvement in the model was found with R^2 = 0.425 and an F-change of 19.33 at p <0.001. The significant and positive beta value, β=0.264, for the VC_F term proves that a stronger perceived voice climate directly increases affective commitment towards the team.

However, the introduction of the moderating terms in Model 15 did not improve the model's predictive power compared to Model 14, R^2=0.432, F-change of 2.59 at p = 0.110). Hypothesis 3b is therefore not supported - perceived voice climate was not demonstrated to moderate the relationship between relationship conflict and affective commitment.

5.5.5.3. Hypothesis 3c

Hypothesis 3c tests the moderating effects of perceived voice climate on the relationship between task conflict and affective commitment towards the team.

Model 12 introduces the primary effect VC_F into model 3 and compares the two models using an F-test. A significant improvement in the model was found with R^2 = 0.371 and an F change of 27.633 at p <0.001. The significant and positive beta value, β=0.322, for the VC_F term proves that a stronger perceived voice climate directly increases affective commitment towards the team.

However, the introduction of the moderating terms in model 17 did not improve the model's predictive power when compared to model 16, R^2=0.372 and F change of 0.49 at p = 0.483. Hypothesis 3c is therefore not supported - perceived voice climate was not demonstrated to moderate the relationship between task conflict and affective commitment.

Table 20

Summary of Results of Regression Models for Hypothesis 3c

Variable	Model 16 CT VC w/o mod effects		Model 17 H_{3a} (CT x VC)	
	Standardised β	VIF	Standardised β	VIF
Independent Variables				
CT_F	-0.264**	1.154	-0.268**	1.161
VC_F	0.322**	1.172	0.193	11.768
Moderating Effects				
VC_FxCT_F			0.134	11.333
Control				
Tenure	0.092	1.037	0.096	1.048
pg_White	-0.229**	1.061	-0.226**	1.067
Gender_Female	-0.291**	1.051	-0.285**	1.074
Results				
R^2	0.371**		0.372**	
Adj. R^2	0.355**		0.353**	
F Change	27.633*		0.493	
Sig. F. Change	<0.001		0.483	

Note. Model 16 was compared to Model 3. Model 17 was compared to Model 16.
*p<0.05; **p<0.01

5.6. Summary of Results

A summary of the hypothesis testing is found in Table 21. The data analysis found supporting evidence for a linear relationship between the three types of team conflict studied and affective commitment towards the team. However, as put forward by hypothesis 1d, evidence of a curvilinear relationship between task conflict and affective commitment was not found. Additionally, evidence was found that TMX plays a moderating role between both relationship and task conflict and affective commitment. However, no evidence was found for the moderation of process conflict. Although perceived voice climate was found to predict affective commitment, it did not moderate the relationship between the three types of conflict and affective commitment as was proposed in hypothesis 3.

Table 21

Summary of Hypothesis Test Results

Hypothesis	Model Comparison	F Change	Supported
1a	0 → 1	55.74**	Yes
1b	0 →2	70.48**	Yes
1c	0 → 3	38.38**	Yes
1d	3 → 4	0.90	No
1e	1→2→3	n/a	Yes
2a	5 → 6	1.04	No
2b	7 → 8	3.07*	Yes
2c	9 → 10	2.93*	Yes
3a	11 → 12	2.10	No
3b	13 → 14	2.59	No
3c	15 → 16	0.493	No

*p<0.05; **p<0.01

6. Discussion of Results

Chapter six discusses the findings outlined in the previous chapter. First, the descriptive analysis of the summated scales and the control model results are discussed before the discussion proceeds by comparing the findings of the hypothesis tests conducted to the findings in the literature review.

6.1. Descriptive Analysis of Summated Scales

A descriptive summary of the summated scales is presented in Table 8. With a mean score of 5.1 and a standard deviation of 1.62, the respondents reported a moderately high level of affective commitment to their syndicate groups. The high mean commitment level may be due to the voluntary nature of the programme and the perceived rewards of completing an MBA successfully. Affective commitment is influenced by increased promotion opportunities, career development, and the chance to participate in decision-making (Malhotra et al., 2007). Many MBA students are earmarked as having high potential for leadership positions within their sponsoring organisations, and on successful completion of the programme, their careers are likely to progress significantly. As such, they likely have a high mean level of commitment to the programme and their syndicate groups. Nevertheless, not all respondents felt strong affective commitment towards their teams, and these disparate levels of commitment are likely to lead to poor team dynamics and outcomes (Manata et al., 2021)

Respondents also reported moderately high-quality team-member exchange, with mean scores of $\bar{X}_{TMX\_f1} = 5.1$, $\bar{X}_{TMX\_f2} = 5.3$ and $\bar{X}_{TMX\_f2} = 4.7$. Similarly, on average, they perceived a moderately strong voice climate within their teams, with a mean score of 5.3. Six of the seven primary independent variables correlated moderately to the dependent variable with Pearson coefficients (r) between 0.39 and 0.52. However, TMX_F2 correlated weakly at r = 0.14, particularly when its strength was compared with the metric control variables age (r = 0.15) and tenure (r = 0.18).

One of the most common complaints within student teams is that of conflict (Schippers, 2014), and conflict was also common within this sample, reporting moderate levels of conflict. Task conflict ($\bar{X}$ = 4.2) was experienced more predominantly than either relationship ($\bar{X}$ = 3.5) or process ($\bar{X}$ = 3.2) conflict,

suggesting that the teams, on average, may have been more task-focused than process or relationship-focused. The respondents experienced a range of conflicts within their groups and the standard deviation of the conflict measurement scales of between 1.42 and 1.56. With correlation coefficients between 0.697 and 0.726, there was a moderate to strong correlation between the three types of conflict measured. This aligns with the findings by O'Neill et al. (2018), who found that one kind of conflict may spill over into other conflicts.

The perceived voice climate correlated moderately to all three conflict types and affective conflict, indicating a potential moderating relationship. Two of the TMX factors correlated showed a significant correlation with the conflict types. However, there was no significant correlation between TMX_F2 and the three types of conflict, suggesting that a moderating relationship here is unlikely.

6.2. Control Model

The results from the regression analysis for the control model are laid out in Table 12. Combined, the control variables introduced into the regression model could explain 14% (R^2 = 0.142) of the variation of the dependent variable, affective commitment. This model was used as the basis of comparison for the subsequent regression models. The control model found supporting evidence that the tenure, population group, and gender of the respondents influence their level of affective commitment towards their syndicate group. In contrast, there was no statistically significant evidence that the age of the respondents predicted their affective commitment. This contrasts a significant but weak correlation (r=0.15) that Meyer et al. (2002) reported between age and affective commitment. The lack of significance of age in the control model may be in part due to the low variance amongst the population's age, with two-thirds of the respondents aged between 30 and 39.

The positive standardised regression coefficient (β=0.17) for tenure shows that groups that work together for longer are more likely to feel a strong commitment to the group. This finding aligns closely with the conclusions of meta-analyses conducted by Yahaya & Ebrahim (2016) and by Meyer et al. (2002), who found a weak correlation (r=0.16) between affective commitment and tenure. It is also supported by Zhang et al. (2021), who showed that social loafing is more likely in teams with shorter tenure and is predicted by affective commitment. Under social

exchange theory, a team's norms and customs are built through reciprocal interactions (Knoll et al., 2021). Teams with longer tenure will likely have more interactions and time for the team members to align norms and identify with the group.

There was also evidence that the respondents' population group influenced affective commitment. Respondents identifying as white reported less affective commitment when compared to those identifying as black, the reference group used in the model, with a negative regression coefficient of β=-0.239; however, no significant evidence was found for a difference between the reference group and the Indian and Other groups. When comparing studies conducted in North America to those outside of the region, Meyer et al. (2002) found differences in the strength of the relationships between organisational commitment and its antecedents. This suggests that some underlying cultural differences between the groups found in this study could explain their differences. For all subsequent regression models population group remained in the model as a control; however, as this was not the aim of the study, no further analysis was conducted into the underlying causes.

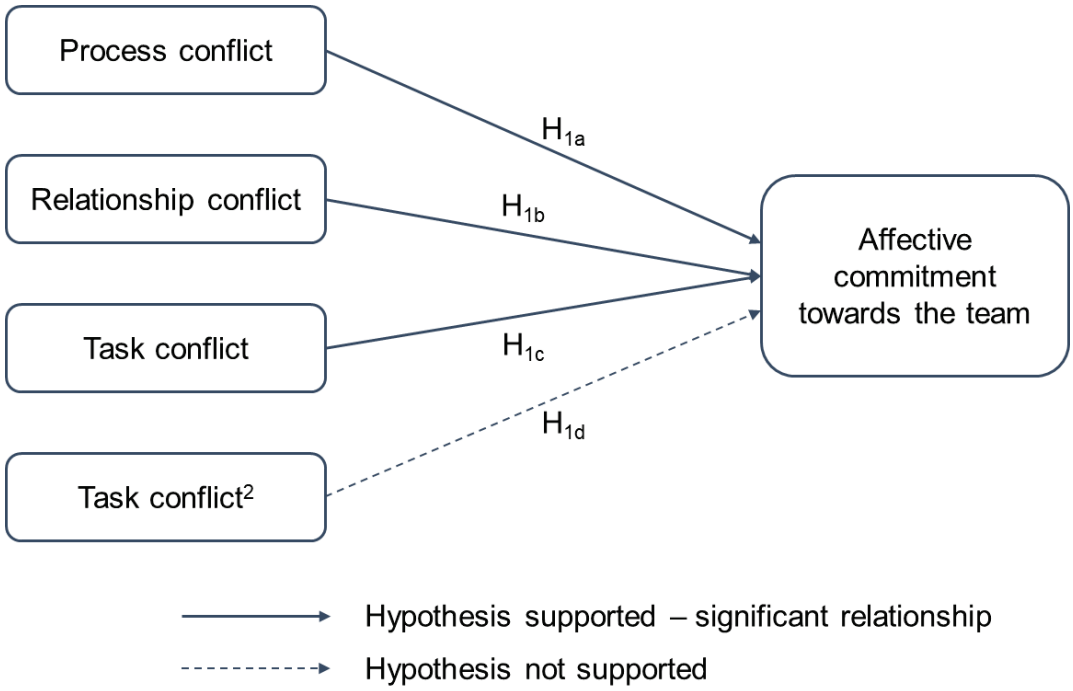
Female respondents, with a regression coefficient of β = -0.285, reported less affective commitment than their male counterparts. This was an unexpected finding in this sample, as both Meyer et al. (2002) and Ohana and Stinglhamber (2019) did not find any relationship between gender and affective commitment. This may be a population-specific relationship, and further investigation into the underlying causes within a future study may be warranted here.

There may have been some differences between the business schools in how syndicate groups are organised and managed, such as the team structure and the evaluation methods employed (Fellenz, 2006). Nevertheless, there was no evidence that the institutions attended by the respondents had any influence on the affective commitment they felt towards their team. This suggests that if there were any organisational differences between the business, it did not affect the commitment felt by the respondents.

6.3. Hypothesis 1

Figure 9

Hypotheses 1a-b Findings



6.3.1. Hypothesis 1a, b, c

Hypothesis 1 puts forward that there are negative relationships between the three conflict types and affective commitment towards the team. Table 13 presents evidence of a significant negative relationship between all three conflict types and affective commitment towards the team, where models 1 – 3 all provided significant improvement in the models' coefficients of determination (R^2). The regression coefficients for all three types of conflict were significant and negative. This provided supporting evidence for hypotheses 1a, b and c.

This finding is supported by previous studies that found that affective commitment stems from the emotional attachment to and identification with the organisation (Mercurio, 2015). Social exchanges characterised by conflict are seen by members as unfavourable and go against expectations of cooperation within the group, increasing the risk of psychological contract breach (J. Lee et al., 2018). Repeated conflicts between team members reduce their identification with the team (Nesterkin

& Porterfield, 2016) and increase individualism and feelings of injustice among team members (O'Neill et al., 2013), reducing their affective commitment.

6.3.1. Hypothesis 1d

Among others, E. K. Lee et al. (2022) showed that the relationship between performance and task conflict is curvilinear, where the best performance was achieved at moderate levels of task conflict. Hypothesis 1d, therefore, hypothesized that task conflict has a curvilinear relationship with affective commitment, such that moderate levels of task conflict bring about the highest levels of affective commitment. However, no significant improvement was found in model 4 over the linear relationship modelled in model 3. Therefore, there is no supporting evidence for an inflection point in the relationship between task conflict and affective commitment and hypothesis 1d was rejected.

Although teams may perform better at a moderate level of task conflict (E. K. Lee et al., 2022), they are likely to have experienced less commitment among their member than teams with less conflict. This may, in part, be due to conflict as seen as an unfavourable social exchange, increasing the risk of psychological contract breach (J. Lee et al., 2018), regardless of the performance benefits. Therefore, performance is unlikely to moderate the effects of task conflict on affective commitment.

Social loafing, a construct closely related to low commitment, is not always detrimental to the team's performance, particularly when the conscientiousness and agreeableness of the team members are high (Schippers, 2014). Team members who notice social loafing will pick up the slack created by loafing team members to maintain performance levels. A similar phenomenon may occur between task conflict and affective commitment. As task conflict becomes more severe, the negative social exchanges result in team members becoming less effectively committed; however, at moderate levels, team members are still willing to perform in the team's best interests. However, the increased conflict and emotional stress result in lower commitment levels even as a performance benefit is seen.

6.3.2. Hypothesis 1e

Hypothesis 1e proposed that of the three types of conflict, task conflict would have the weakest negative relationship with affective commitment. Evidence supporting

this hypothesis was found in Model 5 in Table 14, where both relationship conflict and process conflict had significant negative regression coefficients, while task conflict did not.

This finding aligns with previous findings that showed process conflict to be more detrimental than either task or relationship conflict (O'Neill et al., 2013) and that relationship conflict is more damaging than task conflict (Telecan et al., 2022). The finding suggests that team members should attempt to steer the conflict away from personal incompatibilities and discussions about roles and timelines. To build commitment within the team, they should instead focus on the debates around the content of tasks and work during times of conflict.

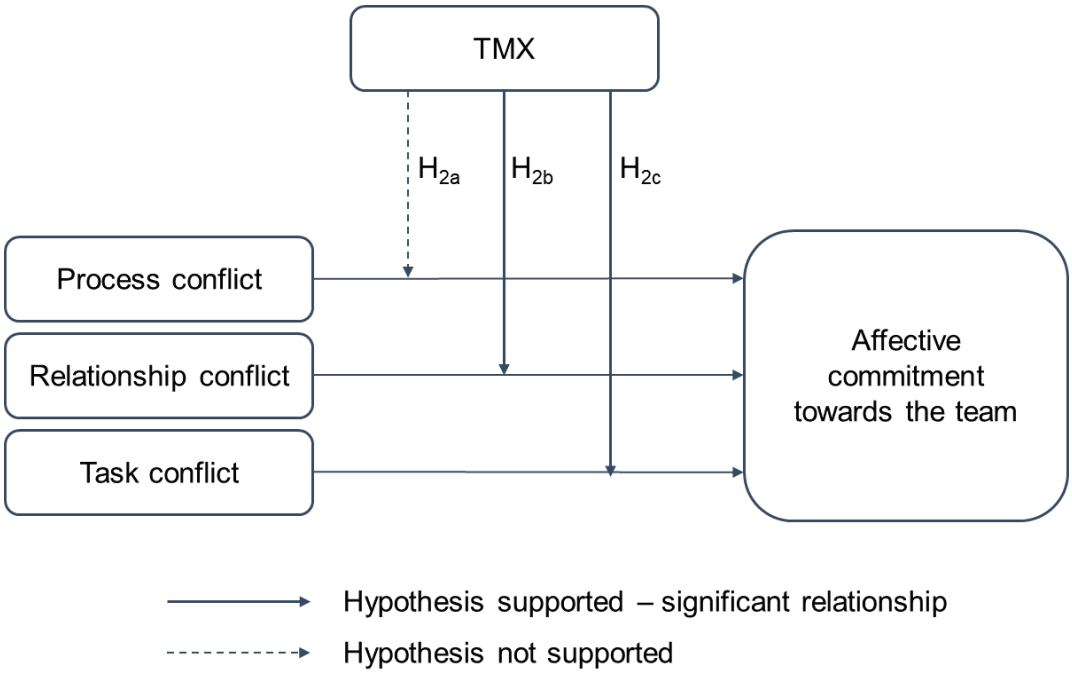
6.3.3. Conclusion

In summary, hypothesis one's findings show that within the syndicate groups, conflict has a linear negative relationship with the affective commitment felt by the team members. Given this relationship, team members who experienced high levels of conflict within their teams were also more likely to have experienced the adverse effects of low commitment. Teams with high conflict resulting in low commitment see increased social loafing (Luo et al., 2021; Zhang et al., 2021), absenteeism and intentions to quit within the team (Haque et al., 2018), as well as work stress, feelings of burnout and emotional stress (Mercurio, 2015), which may result in collective emotion exhaustion (Benitez et al., 2018). Importantly, these adverse effects are not contained to the team and extend to individual team members, who experience increased psychological and physiological strain, negatively impacting their well-being (Kuriakose et al., 2019).

6.4. Hypothesis 2

Figure 10

Hypotheses 2 Findings



Hypothesis 2 hypothesised that the quality of the social exchanges between team members, TMX, plays a moderating role in the relationship between the three conflict types and the affective commitment the individual team members felt towards the team. To test the three hypotheses, regression models containing the moderating variables were compared for a significant improvement over models that only included the direct effects of the variables. The measurement scale for TMX did not factorise into the single expected factor but rather into three factors representing three dimensions within the construct. In order to test the hypotheses, the three factors for TMX were introduced simultaneously into the regression models, and their regression coefficients were assessed for significance.

Direct Effect of TMX

A comparison of the correlations between the three TMX factors and the dependent variable affective commitment, shown in Table 9, revealed a significant correlation between affective commitment in all three TMX factors. However, while significant,

the correlation between TMX_F2 and affective commitment was weak (r = 0.14). Therefore, the direct predictive relationship between the two variables is likely not to be significant (Hair et al., 2014). This was confirmed within the regression models 6 - 12, used to test hypothesis 2, where the regression coefficients associated with TMX_F2 were insignificant. There was, therefore, no evidence that the second TMX factor, TMX_F2, predicted individual affective commitment.

The indicators related to TMX_F2 speak to the willingness of the team member to help others within their team beyond their own tasks or roles. Under social exchange theory, it is expected that team members willing to assist and complete other team members would receive reciprocal benefits, which would build a stronger social contract between the member and their group (Gouldner, 1960). However, within flat-structured teams, there is often no formal hierarchy, and the members must mutually agree upon roles, often implicitly forming informal hierarchies (Jung et al., 2017). Moreover, affective commitment is linked to both role clarity and autonomy (Malhotra et al., 2007), which is reduced within syndicate teams. For social exchange theory to hold, acknowledgement of the benefit is required on the part of the team, who may not recognise it as assistance if they do not share an understanding of the roles and responsibilities within the group. The receiving team members may not perceive the benefits, and the initiating team member may view providing assistance as a burden.

Although there was no significant evidence of a predictive relationship between TMX_F2 and affective commitment, there was evidence that the two remaining dimensions of TMX have a predictive relationship with affective commitment. The standardised regression coefficients for the direct effects of TMX_F1 were significant and moderate, between 0.26 and 0.30, while TMX_F3 had significant standardised regression coefficients between 0.19 and 0.29. Therefore, in all models used to test hypothesis 2, TMX_F1 and TMX_F2 had a significant predictive relationship with affective commitment. These coefficients are positive, and as the quality of the exchange relationship improves, so does the affective commitment the team member feels.

These findings are supported by prior research. Teamwork requires the development of a common identity amongst the group, aligning the individuals' vision, goals and motivations with that of the group through social interactions (Ashforth & Mael, 1989). Ohana and Stinlhamber (2019) found evidence of a predictive relationship between

TMX and affective commitment, and Farmer et al. (2015) showed that high-quality TMX increases an individual's identification with the team. Additionally, affective commitment correlates with constructs closely related to TMX, including work experiences, socialisation, trust, and interpersonal relationships (Mercurio, 2015).

TMX_F1 relates to the group's communication and feedback culture, highlighting that groups that communicate well and provide each other with feedback build stronger commitment amongst their team members. This has some support in prior literature, where the feedback environment has been linked with organisational commitment and OCB (Peng & Chiu, 2010).

TMX_F3 represents the recognition and assistance other members provide to the team member. This can also be viewed through the lens of social exchange theory, where the assistance and recognition received by team members initiate an obligation of repayment (Gouldner, 1960), triggering an emotional response resulting in an increased affective commitment. Interestingly, TMX_F3 represents the reciprocal of TMX_F2 and highlights that while the team member studied may not feel an increased affective commitment due to high-quality TMX_F2, their counterpart receiving the assistance would. Therefore for strong and equal commitment within the team, which is essential for team-level outcomes (Manata et al., 2021), TMX_F2 should be linked to affective commitment when viewed from a team level.

6.4.1. Hypothesis 2a, b, c

Hypothesis 2 was tested by introducing the moderating variables into the regression model containing the direct effects, the results of which are summarised in Models 7, 9 and 11. With an F-change significance level of p=0.377, the introduction of the three moderating terms, CPxTMX, did not improve the process conflict model. Therefore, there is no supporting evidence for hypothesis 2a - TMX does not moderate the relationship between process conflict and affective commitment.

However, the addition of the moderating terms into the relationship and task conflict models, Models 9 and 11, created a significant improvement against their respective direct effect models. The F-change statistic was significant at p = 0.029 and p = 0.035, respectively. This provided evidence that TMX played a moderating role in the

relationship between affective commitment and both task and relationship conflict. Within Models 9 and 11, only one of the moderating terms, TMX_F3, has a significant regression coefficient (β=0.17 and β=0.17, respectively).

TMX_F3 represents the recognition and assistance other members provide to the team member. Through the lens of social exchange theory, conflict causes harm by increasing the team member's distrust and resentment, which would then be reciprocated in kind (O'Neill et al., 2013). Where the individual member is provided with assistance, as measured by TMX_F3, it could interrupt the negative exchange, moderating some of the effects of the relationship conflict.

The quality of TMX has been shown to moderate the effects of emotional conflict on other team outcomes, such as innovation behaviour (Wu et al., 2018). The reciprocity created by high-quality TMX reduces the risk of employees instigating uncivil behaviours, such as talking down to others or ignoring a colleague and reduces feelings of psychological contract violation (Gervasi et al., 2022). This, in turn, reduced the impact of the conflict on the commitment felt by the team members.

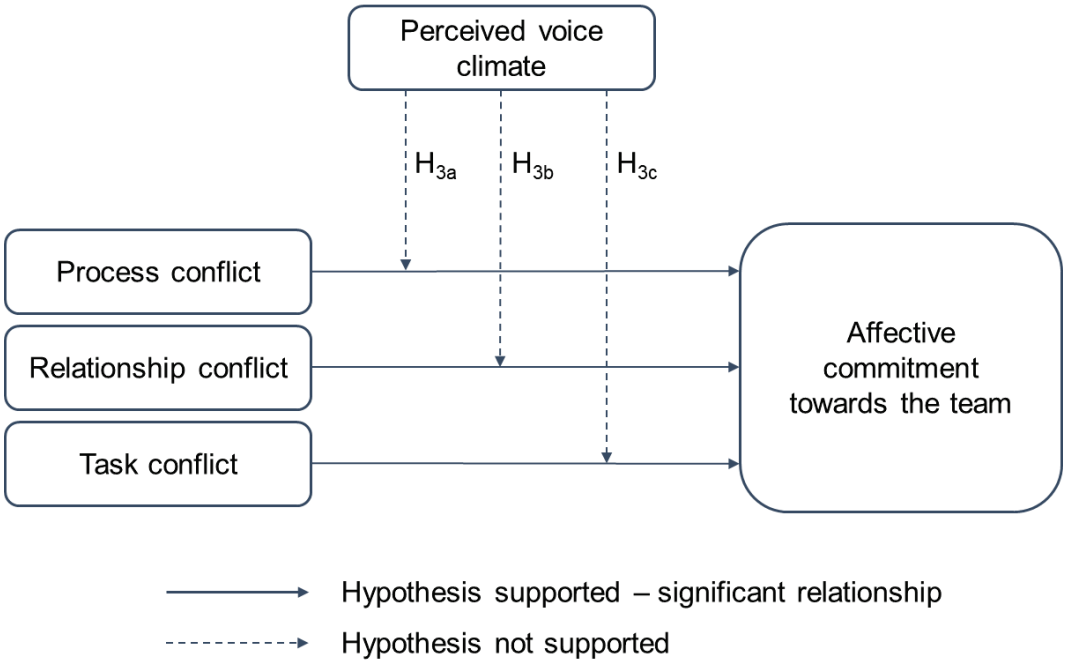
6.4.2. Conclusion

TMX moderates the harms caused by relationship and task conflict. As such, teams with high-quality TMX are more likely to remain committed even with high conflict. The increased commitment would result in less social loafing (Luo et al., 2021; Zhang et al., 2021), more team members exhibiting OCB (Meyer et al., 2002) and increased well-being among the team (Kuriakose et al., 2019).

6.5. Hypothesis 3

Figure 11

Hypotheses 2 Findings



6.5.1. Direct Effect of Perceived Voice Climate

Hypothesis 3 proposes that the perceived voice climate moderates the relationship between conflict and affective commitment. There was significant evidence linking the direct effects of voice climate to affective commitment, with a significant positive regression coefficient between β=0.26 and β=0.32 in the three base models used, which were presented in tables 21-23.

This direct effect highlights that developing an environment that promotes voice within the team by allowing team members the opportunity to voice their opinion increases the affective commitment of the individual team members. This finding aligns closely with others, including Ohana & Stinglhamber (2019), who showed a team's voice climate, mediated through TMX, predicts individual team members' affective commitment, and Colquitt et al. (2013), who linked perceived procedural justice, of which the voice climate is a component, with organisational commitment and OCB.

6.5.2. Hypothesis 3a, b, c

Hypotheses 3 a, b, and c were tested by introducing the moderating variables into the base regression models containing only the direct effects of three types of conflict voice climate and testing for improvement in the model's accuracy using an F-change test. The results of the three hypothesis tests are summarised in Tables 21, 22, and 23. The F-tests produced statistical significance values of $p = 0.149$, $p= 0.110$, and $p = 0.0483$, respectively, all above the significance threshold of 0.05. As such, no significant improvement was present within all three models, and therefore no supporting evidence for hypothesis 3 was found within the sample.

As a result, no significant evidence was found for voice climate having a moderating effect on the relationship between the three types of conflict and affective commitment. This finding is somewhat surprising, given that both Bradley et al. (2012) and Al-Ghazali and Afsar (2021) found that a psychologically safe climate, of which voice climate is a component, moderated the effects of task conflict on team performance outcomes. Further, psychological safety is a precursor to voice behaviour (Sherf et al., 2021), and a strong voice climate predicts voice behaviour within a group (Morrison et al., 2011). This suggests that teams with a strong voice climate should also experience increased psychological safety and voice behaviours within their teams.

However, under proactive voice theory, the team member that exhibits voice behaviours attracts some level of resistance within the group and must weigh the importance and impact of the action against the potential interpersonal consequences (Detert & Burris, 2007). Consequently, voicing one's views and opinions within the group carries inherent risk to the individual performing the voice behaviour. Moreover, intrateam conflict stimulates competition between team members and may lead to internal power struggles (van Bunderen et al., 2018). New ideas are often opposed or ignored when voiced, particularly when voiced by subordinates (Satterstrom et al., 2021).

The lack of moderating relationships could be potentially explained by these negative social exchanges, which lead to reduced affective commitment felt by team members (Ohana & Stinglhamber, 2019). While a strong voice climate reduces this risk for the individual, voice behaviour during times of conflict may be seen as competitive,

aggravating the conflict, or the behaviour may be ignored due to the increased competitiveness of the group. Consequently, while voice climate has demonstrated beneficial outcomes for group outcomes (e. g. Grass et al., 2020; Nijstad et al., 2014) it may not reduce the harmful effects of conflict on affective commitment.

7. Conclusion

The study sought to answer E. K. Lee et al.'s (2022) call to understand the conditions that lead to more beneficial conflict outcomes. This was answered in part by investigating the relationship between the affective commitment felt by the team members, a vital component of well-functioning teams, and the conflicts experienced by the team members.

7.1. Principle Findings

The study builds on existing literature in the following ways. Firstly, within the flat structure of the syndicate groups studied, the relationship between the affective commitment felt by the team members and the conflicts experienced was shown to be both linear and negative. Task conflict, while having a negative linear relationship with affective commitment, is less damaging than relationship or process conflict.

Confirming existing literature, the feedback and assistance received within a high-quality social exchange between team members, TMX, and the voice climate within the team have direct and positive relationships with the affective commitment felt by team members. Accordingly, teams with high-quality exchange relationships and a strong voice climate have more committed team members.

The recognition and assistance received within a team-member exchange (TMX) relationship were shown to moderate the negative relationship between both relationship and task conflict on affective commitment. The affective commitment felt by team members with high-quality team-member exchanges is less negatively impacted by the harmful effects of relationship and task conflict than those with poor-quality exchanges. Conversely, no evidence of TMX moderating the relationship between process conflict and affective commitment was found.

While perceived voice climate has a direct positive relationship with affective commitment, no evidence was found that supports perceived voice climate moderating the relationship between all three types of conflict and commitment.

7.2. Implications for Stakeholders

7.2.1. Students within Syndicate Groups

Students participating within syndicate groups looking to reduce social loafing by increasing the affective commitment felt by their team members should recognise that all conflict is detrimental to the commitment felt. Task conflict is the least harmful of the three types of conflict within the teams. Consequently, teams should, during times of conflict, attempt to orient their discussions around finding solutions to their collective task rather than discussing process or relationship issues.

The voice climate within the group is directly related to the affective commitment felt by the team members and, as such, is a vital component of building organisational commitment and reducing social loafing (Ohana & Stinglhamber, 2019). However, this climate does not appear to moderate the effects of conflict on affective commitment. For this reason, maintaining this climate during significant conflict may not be in the best interests of maintaining a committed group.

7.2.2. Faculty

Business schools have a responsibility and reputational imperative to ensure their graduates obtain the required skills and knowledge for their future business leadership roles (Fellenz, 2006). Many key learnings imparted by business schools are found outside of the content presented in lectures and are instead imparted experientially through student interactions. Accordingly, faculty must balance the valuable experience gained through unmoderated syndicate work while ensuring everyone remains committed and participates adequately to achieve the required skills. While some schools utilise peer review systems to monitor the participation of students, they are easily manipulated by the students (Fellenz, 2006). For example, group members often collude to score each other positively, and peer reviews often suffer from poor reliability and validity. As such, ensuring that the students are committed to the syndicate work by reducing the adverse effects of conflict within these teams is important to both the students and the programme administration.

The negative relationship between affective commitment and conflict suggests that faculty should strive to assist student teams in resolving conflict timeously. This could include direct counselling or additional training on conflict management styles and

strategies (Tehrani & Yamini, 2020).

Promoting a robust social exchange between the team members is critical to developing affective commitment and reducing the negative effect of conflict. The quality of the social exchanges among the team members is directly predictive of affective commitment and moderates the negative effects of relationship and task conflict. Therefore, faculty should strive to promote a culture of feedback, recognition, and assistance within the groups, either through social prompting or, more directly, through the nature of their assignments.

While team voice climate is a predictor of affective commitment (Ohana & Stinglhamber, 2019), it was not shown to moderate the effects of conflict. Promoting a strong voice climate within these teams is crucial to instilling a sense of affective commitment amongst the team members. However, this climate should not supersede the need to resolve conflicts within the team. It may, at times, be more beneficial to the commitment and learning outcomes of the students for the faculty to intervene and resolve the conflict quickly rather than allowing each team member to have their say.

7.2.3. Flat-Structured Teams within the Broader Business Community

While, without deeper investigation, the findings within this study are not readily extended outside of the population, if approached with some caution, many of the implications may be extended to the broader business community. These implications are significant for modern organisations consisting of teams with low hierarchy and limited formal influence, including agile teams. If these teams wish to build strong commitment and mitigate the effects of conflict, they should strive to build strong social exchange relationships. Teams should promote a culture of sharing feedback, assisting colleagues, and recognising other members' difficulties and accomplishments. A strong team voice climate should also be encouraged to build strong affective commitment, however, not at the expense of excessive intrateam conflict.

7.3. Limitations of the Research

The relationships between the constructs were studied in the directions indicated by the literature reviewed; however, the cross-sectional study cannot infer causality (Saunders & Lewis, 2018), and there is a risk that the causal relationships may be reversed. The study was limited to flat-structured teams and, more specifically, MBA syndicate groups and its findings should not be readily generalised beyond this context without further investigation.

As permission was not granted to complete the study within a classroom setting, the sampling used a non-probabilistic technique that relied on participants to volunteer to complete the survey. As such, the participants may have had more motivation and interest in the study than the population (Saunders & Lewis, 2018). Future studies completed within a classroom setting may provide more representative results.

The results of hypothesis 3 should be understood considering the reduced reliability of the scale. Although the voice climate scale's reliability was only marginally acceptable, it was included due to the time constraints within this study. Before further research is completed using this scale, indicators should be added, and the scale should be tested for improved reliability (Tavakol & Dennick, 2011).

The study asked respondents to respond based on their memory of their syndicate experiences. As a result, they may view the experience differently from how they perceived it during the experience and may have reported their experiences more positively or negatively than they would have during the syndicate experience.

7.4. Suggestions for Future Research

Cross-sectional studies cannot readily assign causality. Nevertheless, the relationships in this research report were examined in the causal directions indicated by the grounding literature. Accordingly, this study may be furthered by confirming the causality through a longitudinal approach.

Building on this research report, multiple other avenues of research are apparent. Although prior literature found a relationship between voice, conflict and affective commitment, this report did not find evidence that a strong voice climate moderates the relationship between conflict and affective commitment. Therefore, further

research into these relationships is warranted, either by directly studying the effects of voice and psychological safety or by examining these relationships through mediator variables.

Continuing to answer E. K. Lee et al.'s (2022) call for additional research into the conditions that improve conflict outcomes, additional moderating and dependent constructs could be tested against conflict within syndicate groups. On an individual level, suggestions for moderating constructs include individual personality differences, conflict management strategies, and team socialisation. Potential dependent variables include directly measuring social loafing, and the learning outcomes individuals within the team achieve. Although previous studies found that the highest performance is achieved at moderate levels of task conflict, no inflection point was found in task conflict's relationship towards affective commitment. It would therefore be interesting to further investigate the nature of the relationship between affective commitment and performance through the lens of task conflict.

There is also a possibility to extend this research to a team level. This could include investigating conflict's relationship to team commitment and commitment disparity within the team. Understanding the mediating relationship of commitment between conflict and team performance would shed additional light on the potential positive impacts of task conflict. Other team-level moderators could include conflict management strategies, communication methods and team socialisation strategies.

The study found that TMX_F2, the willingness of a team member to help others, did not moderate the relationship between conflict and affective commitment, although its inverse TMX_F3, help received by the team member, did. Understanding the moderating impact of TMX at a group level would provide deepening insights into the effect of TMX on commitment.

Having completed the survey, some respondents gave additional anecdotal insights into their experiences. They highlighted that in addition to commitment disparity amongst the group members, leadership style, miscommunication, stage of their MBA journey, and group size may play a role in moderating conflict.

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Appendix A Original Measurement Scales

1. **Conflict scales**
   - **1.1. Relationship conflict** (Pearson et al., 2002)
     - 1.1.1. How much anger was there among the members of the group?
     - 1.1.2. How much personal friction was there in the group during decisions?
     - 1.1.3. How much tension was there in the group during decisions?
   - **1.2. Task Conflict** (Pearson et al., 2002)
     - 1.2.1. How many disagreements over different ideas were there?
     - 1.2.2. How many differences about the content of decisions did the group have to work through?
     - 1.2.3. How many differences of opinion were there within the group?
   - **1.3. Process conflict** (Shah & Jehn, 1993)
     - 1.3.1. How often were there disagreements about who should do what in your work group?
     - 1.3.2. How much conflict was there in your group about task responsibilities?
     - 1.3.3. How often did you disagree about resource allocation in your workgroup?

2. **Affective Commitment Scale** (Bentein et al., 2002)
   - 2.1. I really felt that I belonged in this workgroup.
   - 2.2. I was proud to be a member of this workgroup.
   - 2.3. My workgroup had a great deal of personal meaning for me.

3. **Team-Member Exchange (TMX) Scale** (Seers et al., 1995)
   - 3.1. How often did you make suggestions about better work methods to other team members?
   - 3.2. Did other members of your team usually let you know when you did something that made their jobs easier (or harder)?
   - 3.3. How often did you let other team members know when they had done something that makes your job easier (or harder)?
   - 3.4. How well did other members of your team recognise your potential?
   - 3.5. How well did other members of your team understand your problems and needs?

3.6. How flexible were you about switching job responsibilities to make things easier for other team members?

3.7. In busy situations, how often did other team members ask you to help out?

3.8. In busy situations, how often did you volunteer your efforts to help others on your team?

3.9. How willing were you to help finish work that had been assigned to others?

3.10. How willing were other members of your team to help finish work that was assigned to you?

4. <u>Voice Climate</u> (Ohana, 2016)

4.1. I was able to express my views and feelings before decisions were made by my workgroup.

4.2. I had influence over the outcome arrived at by my workgroup's decision.

4.3. My workgroup got my input before making a recommendation.

Appendix B Survey

a. Consent Statement

I am currently a student at the University of Pretoria's Gordon Institute of Business Science and completing research in partial fulfilment of an MBA.

I am conducting research into the relationship between intra-team conflict and individual commitment towards the team. **To that end, please could you answer the survey that follows in relation to an occasion where you worked within a syndicate* team during your post-graduate studies.**

The survey should take **less than 10 minutes of your time**. Your participation is voluntary, and you can withdraw at any time without penalty. Your participation is anonymous and only aggregated data will be reported. By completing the survey, you indicate that you voluntarily participate in this research. If you have any concerns, please contact me or my supervisor. Our details are provided below.

*A syndicate team is a group of students working together to complete assignment(s), often over the course of an academic course or programme. These teams are usually assigned by the programme management team.

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b. Screening Questions

SQ01 - Are you currently completing, or have you completed, a post-graduate programme in the field of business through a South African based institution?

e.g., MBA, PGDip, PDBA programmes

Yes	No

SQ02 - What is the highest-level programme that you have completed or are currently completing?

MBA	PGDip	PDBA	MPhil	EMBA
Other:				

SQ03 -When did you graduate (or do you expect to graduate) from this programme?

2017	2018	2019	2020	2021	2022	2023	2024
Other:							

SQ04 -During this program did you participate in a syndicate workgroup?

Yes	No

SQ05 - For the purpose of this survey, please answer the questions that follow in relation to one of your syndicate group experiences.

How long did you work within this syndicate for?

I did not work within a syndicate group	A week or less	1 - 4 weeks	1 - 3 months	3 - 6 months	6 - 12 months	More than a year

c. Research Questions

Please select the response to the following statements/questions that is most reflective of your experience within your chosen syndicate workgroup

Code	Question Text							
		Never						Always
CP1	How often did you disagree about resource allocation in your syndicate group?	1	2	3	4	5	6	7
TMX01	How often did you let other group members know when they had done something that makes your job easier (or harder)?	1	2	3	4	5	6	7
TMX02	How often did you make suggestions about better work methods to other group members?	1	2	3	4	5	6	7
CP02	How often were there disagreements about who should do what in your syndicate group?	1	2	3	4	5	6	7
		Strongly Disagree						Strongly Agree
TMX03	I was flexible about switching job responsibilities to make things easier for other group members	1	2	3	4	5	6	7
TMX04	Other members of my group understood my problems and needs	1	2	3	4	5	6	7
TMX05	In busy situations, I frequently volunteered my efforts to help others in my group	1	2	3	4	5	6	7
TMX06	I was willing to help finish work that had been assigned to others	1	2	3	4	5	6	7
CT01	There were many disagreements over different ideas	1	2	3	4	5	6	7
CR01_n	*There was hardly any interpersonal friction in the group during decision making	1	2	3	4	5	6	7
TMX07_n	*In busy situations, I was seldom asked by other group members to help out	1	2	3	4	5	6	7
CR02	There was significant tension within the	1	2	3	4	5	6	7

	group during decision making							
CT02	The group had to work through many differences regarding the work content to reach a decision.	1	2	3	4	5	6	7
VC01	My syndicate group got my input before making a recommendation.	1	2	3	4	5	6	7
TMX08_n	*Other members of my group were not willing to help finish work that was assigned to me	1	2	3	4	5	6	7
TMX09	Other members of my group recognised my potential	1	2	3	4	5	6	7
AF01	I was proud to be a member of this group.	1	2	3	4	5	6	7
AF02	My syndicate group had a great deal of personal meaning for me.	1	2	3	4	5	6	7
AF03	I really felt that I belonged in this syndicate group.	1	2	3	4	5	6	7
CP03_n	*There was very little conflict in the group about task responsibilities	1	2	3	4	5	6	7
CT03_n	*There were very few differences of opinion within the group	1	2	3	4	5	6	7
TMX10	Other members of my group usually let me know when I did something that made their jobs easier (or harder)	1	2	3	4	5	6	7
CR03	There was considerable anger among the members of the group	1	2	3	4	5	6	7
VC02	I was able to express my views and feelings before decisions were made by my group.	1	2	3	4	5	6	7
VC03	I had influence over the outcomes arrived at by my group's decisions.	1	2	3	4	5	6	7

* Negated question

d. Demographic Questions

DQ01 - Which institution did you complete your programme with?

UCT - Graduate School of Business	GIBS - Gordon Institute of Business Science	Wits Business School	Stellenbosch Business School
NMMU	Henley Business School	Rhodes University	I would prefer not to specify
Other:			

DQ02 - How old are you?

20-29	30-39	40-49	50-59	60+	I would prefer not to specify

DQ03 - Please indicate your race

Black	Coloured	Indian	White	I would prefer not to specify
Other:				

DQ04 - Which gender do you identify with?

Female	Male	Non-Binary	I would prefer not to say
Other:			

Appendix C Changes made to the survey after prototype testing

Table 22

Changes Made to the Survey After Prototype Testing

Question	Change description
Permissions	The form permission settings were updated from GIBS-associated accounts to public
Demographic - Age	Overlapping age range – Originally 20-30, 30-40 etc., was changed to 20-29, 30-39 etc.
Question 12 – Ambiguity	The question did not make sense - incorrectly copied into Google Forms – corrected to the original question
Question 11 - Typo	The → There
Consistency of wording for syndicate groups	Different terms were used for syndicate groups - the wording was standardised

Appendix D Code Book

Table 23

Codebook

Response	Code
DQ1- University	
GIBS	1
Henley Business School	2
UCT - GSB	3
Rhodes University	4
Wits Business School	5
NMMU	6
Stellenbosch Business School	7
UFS	8
MANCOSA	9
I would prefer not to specify	0
DQ02 – Age	
20-29	1
30-39	2
40-49	3
50-59	4

60+	5
I would prefer not to specify	0
DQ03 – Population Group	
Black	1
Coloured	2
Indian	3
Mixed Race	4
White	5
African	6
I would prefer not to specify	0
DQ04 – Gender	
Female	1
Male	2
Non-Binary*	0
I would prefer not to say	0
SQ2- Programme	**NQF level**
MBA	9
PGDip	8
PDBA	8
MPhil	9
Executive MBA	9
PHD	10
SQ5 – Tenure	
A week or less	1
1 - 4 weeks	2
1 - 3 months	3
3 - 6 months	4
6 - 12 months	5
More than a year	6

Note. *Only one response for non-binary received

Appendix E Descriptive summary of the individual scale indicators

A total of 25 indicators were used to measure the six constructs used in the hypothesis model. These were named according to their source scale. Only one indicator, VC01, did not receive responses spanning the entire Likert scale range. The median response ranged from 2 to 6, with the third relationship conflict indicator receiving the lowest median. The standard deviation of the responses ranged from 1.2 to 1.9.

Table 24

Descriptive Summary of Scale Indicators

Indicator	Mean	Std. Deviation	Median	Minimum	Maximum
AF01	5.50	1.673	6	1	7
AF02	4.84	1.859	5	1	7
AF03	5.00	1.755	5	1	7
CP01	3.39	1.590	3	1	7
CP02	3.44	1.669	3	1	7
CP03_n	3.46	1.856	3	1	7
CR01_n	4.70	1.909	5	1	7
CR02	3.70	1.914	4	1	7
CR03	2.79	1.866	2	1	7
CT01	4.17	1.760	4	1	7
CT02	4.05	1.782	4	1	7
CT03_n	4.48	1.661	5	1	7
VC01	5.38	1.296	6	2	7
VC02	5.33	1.549	6	1	7
VC03	5.38	1.337	6	1	7
TMX01	4.70	1.526	5	1	7
TMX02	5.27	1.308	5	1	7
TMX03	5.56	1.360	6	1	7
TMX04	4.75	1.506	5	1	7
TMX05	5.27	1.392	5	1	7
TMX06	5.07	1.557	5	1	7
TMX07_n	4.37	1.766	5	1	7
TMX08_n	4.67	1.726	5	1	7
TMX09	5.71	1.208	6	1	7
TMX10	4.73	1.549	5	1	7

Note. n=202. Scale codes and their respective questions can be found in Appendix B.

Appendix F Confirmatory Factor Analysis Results

Table 25
CFA Results

	X2 (>0.05)	CFI (>0.9)	RMSEA (<0.08)	SRMR (<0.08)	Model Fit Result
AF	0.000	0.968	0.259	0.067	Fail
CP	0.010	0.975	0.167	0.051	Fail
CR	0.946	1.000	0.000	0.002	Pass
CT	0.042	0.980	0.125	0.046	Fail
VC	0.000	0.838	0.297	0.112	Fail
TMX	0.000	0.716	0.122	0.092	Fail

Note. n=165.

Appendix G Assumptions for linear regression

Four key assumptions must be met when conducting linear regression - linearity of the phenomenon, normality of the residuals, homoscedasticity, and independence of the error terms. These may be tested graphically by assessing the spread of residuals in a histogram plot and plotting the regression residuals against their predicted values (Hair et al., 2014). Ideally, the scatter plots should resemble a bird's nest with no discernible patterns. The plots for each regression model are shown in the figures that follow.

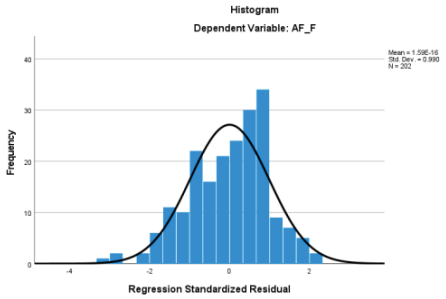
The spread of residuals seen within the histograms follow a normal distribution. The residual scatter plots follow a predominantly random distribution; however, a linear limit line can be seen, shown by the orange arrow in the first residual plot in Figure 12. Regression analysis assumes that the model is not bounded and is valid over all values. However, the limited Likert scale, with values between 1- 7, used to collect data introduces a bounded set of values to which the regression model is valid. Therefore, these boundaries limit residual values, introducing the limit line within the scatter plot. For example, if the value predicted by the model is six and the maximum observed value is seven (bounded by the Likert scale), the maximum residual observable is one. A similar limit would be true on the lower end of the scale; however, this is largely unobserved in this sample due to the high mean (5.11) affective commitment level observed.

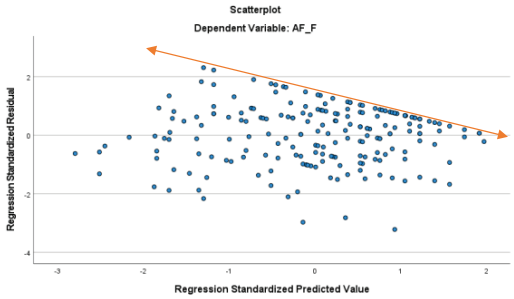
For these reasons, the observed limit line within the scatter plots is accepted, and the assumption of linear regression is valid for this sample.

Figure 12

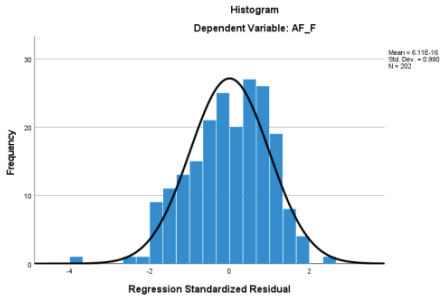
Residual Plots and Histograms for Regression Models 1-16

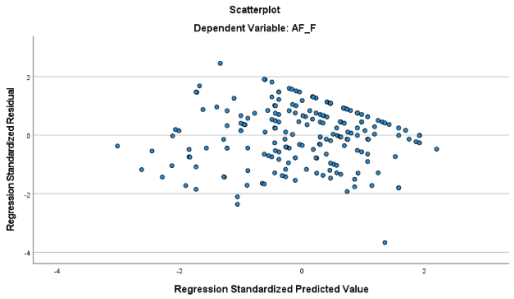
Model 1



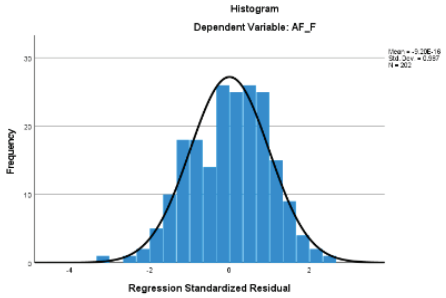


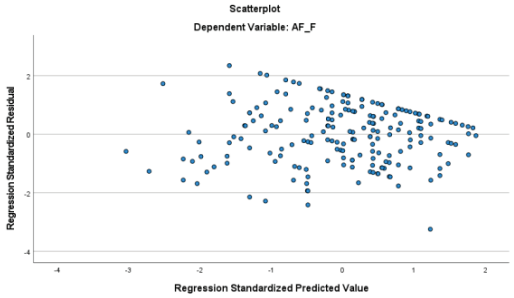
Model 2



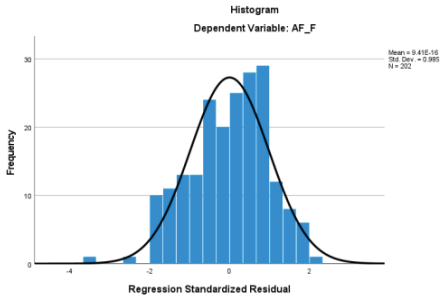


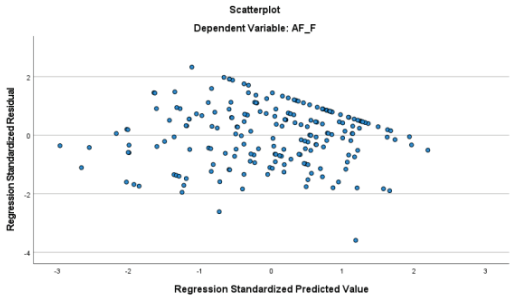
Models 3 & 4



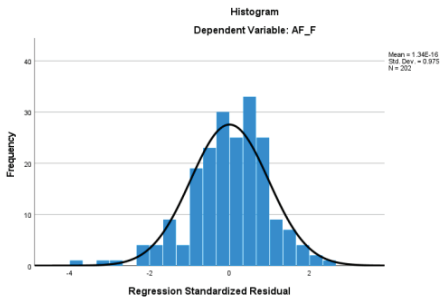


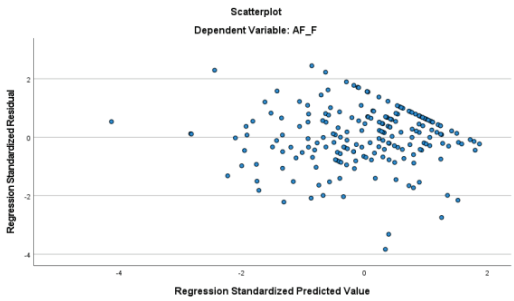
Model 5



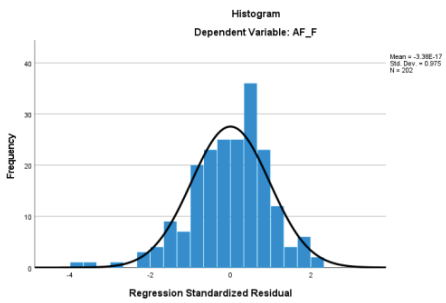


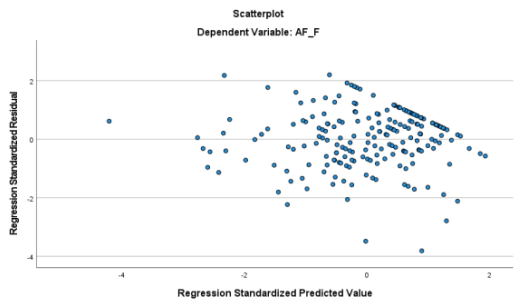
Models 6 & 7



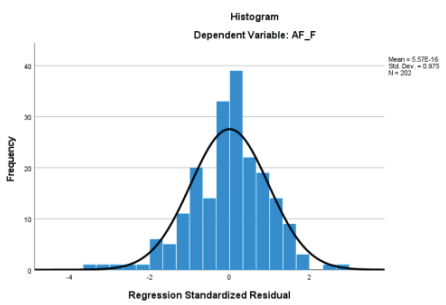


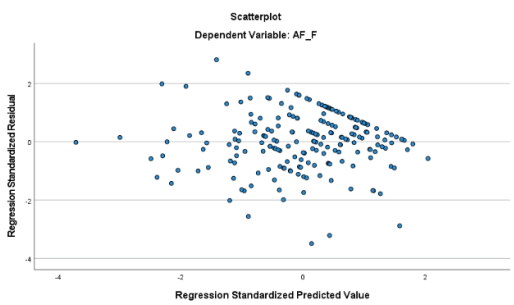
Models 8 & 9



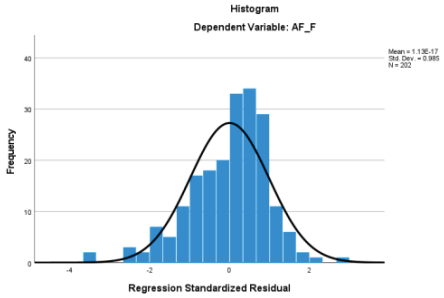


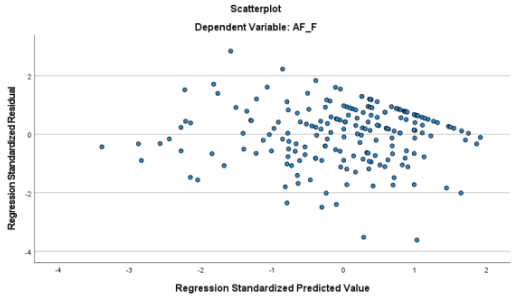
Models 10 & 11



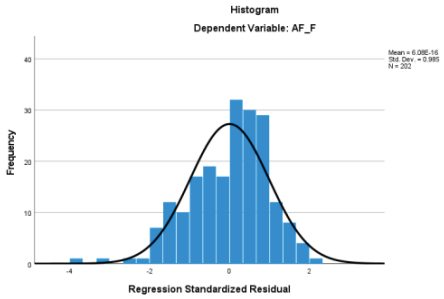


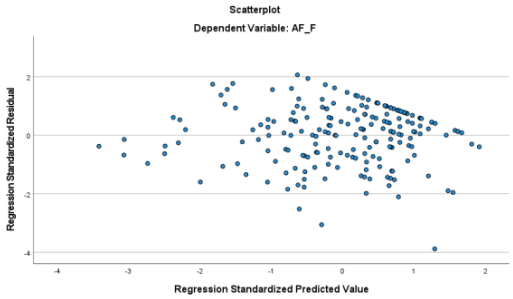
Models 12 & 13



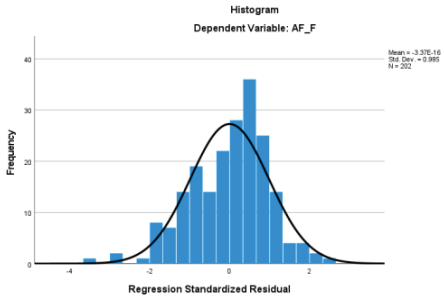


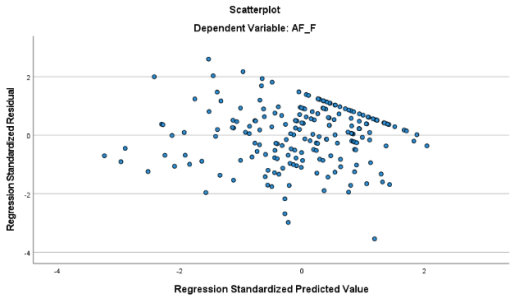
Models 14 &15





Models 16 &17





Appendix H Complete Control Model Summary

Table 26

Summary of Results of the Control Regression Model

Variable	Model 0 Control Model	
	Standardised β	VIF
Control		
DQ02_age	0.107	1.072
Tenure_C	0.162*	1.031
pg_white	-0.279**	1.246
pg_Indian	-0.096	1.114
pg_Other	-0.108	1.252
Gender_Female	-0.298*	1.075
Gender_Other	-0.077	1.084
Institution_UCT	0.163*	1.138
Institution_Other	0.018	1.094
Results		
R^2	0.190**	
Adj. R^2	0.151**	
F Change	--	
Sig. F. Change	--	

Note. Institution_UCT was later removed through stepwise deletion
*p<0.05; **p<0.01