

JCT 2016 Contract and Power Dynamics in Construction: Main Contractor Control over Subcontractor Payments, Variations, and Disputes



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Student Name: Kieran Bowen

Student Number:

Word Count: 10,455

Author's Declaration

I declare that the work in this dissertation was carried out in accordance with the regulations of the University of Wales, Trinity Saint David. The work is original except where indicated by special references in the text and no part of the dissertation has been submitted for any other degree.

Any view expressed in the dissertation are those of the author and in no way represent those of the University of Wales, Trinity Saint David.

The dissertation has not been presented to any other University for examination either in the United Kingdom or overseas.

I hereby give permission for my work, if accepted, to be available for photocopying and inter-library loan, and for the title and summary to be made available to outside organisations.

Signed: *Kieran Bowen*

Date: 06/05/26

Acknowledgements

I want to thank the following people for the support I have received whilst completing my studies at UWTSD.

I would like to express my sincere gratitude to my colleagues at Horbury Southwest Limited for their invaluable support throughout my studies. Their expertise and guidance, particularly in helping me understand and navigate contractor disputes, have been instrumental in shaping my knowledge and ultimately influenced my choice of dissertation topic.

I am also deeply thankful to the University of Trinity Saint David for the academic support and resources provided, which have been essential to the successful completion of this dissertation.

In addition, I would like to express appreciation to my family and partner for their unweaving encouragement, patience and support throughout this journey. Their belief in me has provided constant motivation during both the challenges and successes of completing this degree.

Finally, I would like to dedicate a special thanks to my Nanny Pat, who is sadly no longer with us. Her strength, guidance and encouragement have continued to inspire me throughout my studies and have played a significant role in pushing me to complete this degree. Her influence and support will always remain within me.

Copyright

The copyright of this dissertation rests with the University of Trinity Saint David. No information derived from this dissertation shall be published without the prior consent of the University.

Signed: *Kieran Bowen*

Date: 06/05/26

Abstract

This dissertation critically examines the extent to which the JCT 2016 standard forms of contract facilitate a disproportionate balance of power between main contractors and subcontractors within the UK construction industry. Focusing on three key areas payment mechanisms, variation valuation, and dispute resolution. The research evaluates whether contractual neutrality is achieved in practice or whether structural and operational factors enable main contractor dominance.

The study adopts a mixed-method approach, combining a critical literature review with primary quantitative research in the form of a questionnaire distributed to construction professionals, including quantity surveyors and commercial managers. The literature identifies longstanding concerns regarding financial control, contractual discretion, and barriers to dispute resolution, suggesting that while legislative frameworks such as the Housing Grants, Construction and Regeneration Act 1996 aim to promote fairness, practical imbalances persist.

The primary research findings strongly support these concerns. A significant majority of respondents indicated that main contractors retain substantial control over subcontractor payments, with 96% agreeing that payment practices create financial pressure. Similarly, variation procedures were widely perceived as contractor-controlled, with 96% of respondents confirming that valuation is dominated by main contractors and 84% reporting frequent undervaluation. The findings also reveal that subcontractors are often required to undertake variation work prior to agreement, increasing financial exposure and reducing bargaining power. Dispute resolution mechanisms, while contractually available, were found to be practically constrained. The research shows that 84% of respondents believe subcontractors are reluctant to pursue disputes, largely due to cost, commercial risk, and potential damage to future working relationships. This demonstrates a clear gap between formal contractual rights and their practical accessibility. The study further highlights the role of quantity surveyors as key actors within these power dynamics. Evidence suggests that professional judgement may be influenced by organisational commercial pressures, creating ethical tensions between impartial contract administration and employer-driven objectives.

Overall, the dissertation concludes that while JCT 2016 contracts are designed as balanced legal frameworks, their structure and application can enable main contractors to exercise significant commercial control. Power imbalance arises not solely from contractual wording but from the interaction between contractual authority, economic dependency, and industry practice. The research contributes to ongoing discussions around fair payment, contractual reform, and ethical practice within quantity surveying, offering recommendations aimed at improving transparency, accessibility, and equity within the construction supply chain.

Abbreviations

BIS - Department for Business, Innovation and Skills

CIC - Construction Industry Council

CLC - Construction Leadership Council

DB 2016 - JCT Design and Build Contract 2016

HGCRA - Housing Grants, Construction and Regeneration Act 1996

JCT - Joint Contracts Tribunal

QS - Quantity Surveyor / Quantity Surveying

RICS - Royal Institution of Chartered Surveyors

SBC 2016 - JCT Standard Building Contract 2016

SBCSub/C - JCT Standard Building Sub-Contract Conditions

SME - Small and Medium-sized Enterprise

Table of Contents

<i>Table of Figures</i>	<i>11</i>
1.0 Introduction	13
1.1 Aims and Objectives	15
1.2 Research Approach	16
2.0 Literature Review	17
2.1 Introduction	17
2.2 Payment Mechanisms and Main Contractor Control	17
2.3 Critical Analysis of JCT 2016 Payment Provisions	18
2.4 Empirical Evidence of Systematic Payment Abuse	19
2.5 “Pay When Paid” Prohibitions and Statutory Protection for Subcontractors	20
2.6 Payment Practices / Supply Chain Fairness	21
2.7 Financial Risk Implications and Insolvency Correlation	22
2.8 Variations, Valuation, and Commercial Risk Distribution	22
2.9 JCT 2016 Variation Control Mechanisms	22
2.10 Systematic Undervaluation of Variations	23
2.11 Time Bar Provisions and Subcontractor Vulnerability	24
2.12 Dispute Resolution Mechanisms and Accessibility	25
2.13 Retention Reform and the Proposed Retention Ban	25
2.14 Fair Payment Reform / Cultural Change	26

2.15	Commercial and Financial Barriers to Dispute Resolution	26
2.16	Documentation Asymmetry and Evidentiary Disadvantage	27
2.17	Professional Ethics and Quantity Surveyors	28
2.18	Inaccessibility of Arbitration and Litigation	28
2.19	Ethical Tensions in Contract Administration	28
2.20	Professional Standards and Guidance	29
2.21	Competency Development and Educational Reform	30
2.22	Synthesis and Research Gap	30
3.0	Methodology	32
3.1	Introduction	32
3.2	Research Philosophy and Approach	32
3.3	Secondary Research	33
3.4	Quantitative Research – Questionnaire Design	33
3.5	Sampling Strategy and Sample size Justification	34
3.6	Data Collection process	35
3.7	Reliability and Validity	35
3.8	Ethical Considerations	36
3.9	Limitations of Methodology	36
4.0	Results	39
4.1	Introduction	39
4.2	Overview of Survey Sample	39

4.3	Payment Practices and Financial Pressure	41
4.4	Variations, Valuation and Commercial Risk	44
4.5	Dispute Resolution and Practical Barriers	48
4.6	Power Imbalance and Professional Pressures	51
5.0	Analysis and Critical Discussion	54
5.1	Introduction	54
5.2	Payment Mechanisms and Main Contractor Financial Control	54
5.3	Variations, Valuation and Commercial Risk Transfer	55
5.4	Dispute Resolution: Formal Rights Versus Practical Accessibility	56
5.5	Professional Ethics and the Role of Quantity Surveyors	57
5.6	Overall Evaluation of Aim	58
6.0	Conclusion	59
7.0	Recommendations	61
	References	62

Table of Figures

Figure 1 - Payment Timeline Comparison Under JCT SBC 2016 Framework	18
Figure 2 - Pay less Notices Under JCT SBC 2016 Framework	19
Figure 3 - Pay less Notices Under JCT SBC 2016 Framework	20
Figure 4 - JCT Clause 3.6 Main Contractor Control Mechanism	23
Figure 5 - JCT Clause 5.2 Main Contractor Control Mechanism	23
Figure 6 - JCT Clause 5.3.3 Variation Valuation	24
Figure 7 - JCT Clause 9.2 Adjudication.....	27
Figure 8 - RICS Guidance Versus Reported Practice on Payment Fairness	29
Figure 9 - Roles.....	40
Figure 10 - Years of Experience.....	41
Figure 11 - Main Contractor Control	41
Figure 12 - Payment Contract Terms	42
Figure 13 - Pay Less Notices	43
Figure 14 - Payment Practices	44
Figure 15 - Valuation of Variations	45
Figure 16 - Undervalued Variations	46
Figure 17 - Variations.....	47
Figure 18 - Time Constraints	48
Figure 19 - Disputes.....	49
Figure 20 - Cost of Disputes	50
Figure 21 - Negative Work Relationships.....	51
Figure 22 - Power Imbalance	52

Figure 23 - Commercial Pressure	53
---------------------------------------	----

1.0 Introduction

The construction industry operates through a complex network of contractual relationships, financial dependencies, and hierarchical structures that significantly influence how risk, responsibility, and power are distributed. In the United Kingdom, the Joint Contracts Tribunal (JCT) suite of contracts is the most widely used standard form of contract and plays a central role in regulating these relationships. JCT contracts are fundamental tools for commercial management, governing payment mechanisms, the valuation of variations, and the administration of disputes. Despite the intention of JCT contracts to provide a fair and balanced framework, concerns persist that they may, in practice, enable main contractors to exert a disproportionate level of control over subcontractors.

This dissertation, titled JCT Contracts and Power Dynamics in Construction: Main Contractor Control over Subcontractor Payments, Variations, and Disputes, focuses specifically on how power is exercised within JCT contractual arrangements at subcontract level. Subcontractors typically undertake a significant proportion of construction work yet often operate with limited bargaining power, restricted contractual autonomy, and a heavy reliance on regular cash flow. Within JCT frameworks, main contractors usually retain control over payment certification, the assessment and agreement of variations, and the initial management of disputes. These areas are critical from a business perspective as they directly affect cost certainty, cash flow management and financial risk across the supply chain.

Payment practices remain one of the most contentious issues in the construction industry. Although statutory protections such as the Housing Grants, Construction and Regeneration Act 1996 (as amended) (GOV.UK, 1996), aim to promote fair payment, late and withheld payments continue to be prevalent, particularly for subcontractors. Under JCT contracts, main contractors often control interim valuations, payment notices, and the release of funds to subcontractors. This control can create an imbalance of power, allowing main contractors to influence subcontractor cash flow and financial stability. From a sub-contractor standpoint, this raises important questions regarding ethical practice, compliance with contractual obligations, and the effectiveness of JCT payment mechanisms in protecting subcontractor interests.

Variations represent another key area in which power dynamics are evident. Construction projects are inherently subject to change, and the valuation of variations is a routine but critical function within quantity surveying practice. Under JCT contracts, variations to subcontract works are often instructed and valued through the main contractor, leaving subcontractors dependent on the contractor's assessment and agreement. Disputes commonly arise where variations are undervalued, delayed or not formally instructed, exposing subcontractors to financial risk. This dissertation critically examines whether JCT contractual provisions relating to variations promote fair valuation and transparency or whether they reinforce main contractor dominance.

Dispute resolution procedures further highlight the imbalance of power within construction contracting. While JCT contracts provide access to adjudication, arbitration, and litigation, subcontractors may be reluctant or unable to pursue disputes due to cost, time pressures, and the potential impact on future work opportunities. Subcontractors are frequently involved in dispute preparation, claim substantiation, and commercial negotiations, making it essential to understand whether dispute resolution mechanisms under JCT contracts are practically accessible to subcontractors or primarily favor main contractors. This research therefore considers both the theoretical availability and the practical effectiveness of these mechanisms.

Overall, this dissertation examines JCT contracts not only as legal documents but as instruments that shape power relationships within construction projects. By focusing on main contractor control over subcontractor payments, variations, and disputes, the research aligns closely with the commercial management and contract administration responsibilities of quantity surveyors. The study seeks to evaluate whether JCT contracts achieve an appropriate balance of power in practice or whether they contribute to ongoing commercial inequalities within the construction supply chain.

1.1 Aims and Objectives

Aims:

The aim of this dissertation is to critically examine whether JCT 2016 contractual frameworks create a disproportionate balance of power between main contractors and subcontractors, with particular focus on payments, variations and dispute resolution.

Objectives:

The objectives of this dissertation are to examine the extent of main contractor control over subcontractor payment mechanisms under JCT contracts and its impact on cash flow and financial risk.

- To Analyse the extent of main contractor control over subcontractor payment mechanisms and the impact on cash flow and financial risk.
- To evaluate how variations are instructed, valued and agreed under JCT subcontract arrangements, and the implications for subcontractor entitlement.
- To assess the effectiveness and practical accessibility of dispute resolution procedures available to subcontractors under JCT contracts.
- To examine the wider implications of these power dynamics for quantity surveying practice, ethical decision-making and fair commercial management.

This research is significant to the discipline of quantity surveying as it directly relates to core professional competencies, including commercial management, contract administration, and ethical practice. By examining subcontractor relationships, the study addresses an area that is central to project delivery but often underrepresented in academic research, which typically focuses on employer–contractor dynamics.

The findings of this dissertation have practical relevance for quantity surveyors working in both consultancy and contracting roles. A clearer understanding of how power is exercised through JCT payment, variation, and dispute mechanisms can support more informed professional judgement, improved risk management, and more transparent commercial practices. Given the prevalence of

subcontractor insolvency and cash flow disruption, this research is particularly relevant to improving financial sustainability within the industry.

In addition, the research may contribute to wider industry and policy discussions regarding fair payment and contractual reform. If JCT contracts are found to inadequately protect subcontractors in practice, the findings may support recommendations for improved contract drafting, administration, or further legislative intervention.

1.2 Research Approach

To achieve the stated aim and objectives, this dissertation adopts a primarily quantitative approach incorporating both secondary and primary research methods. Secondary research involves a critical review of existing literature, including academic journals, construction law textbooks, JCT standard form contracts, industry guidance and relevant legislation and case law. This provides a theoretical and legal foundation for understanding power dynamics, contractual mechanisms, and quantity surveying responsibilities. Primary research is used to explore how JCT contracts operate in practice. This will consist of questionnaire surveys distributed to construction professionals to identify common experiences and perceptions regarding main contractor control under JCT contracts

Through combining doctrinal analysis with industry-based primary data, the research aims to provide a balanced and practice-focused evaluation of JCT contracts and their impact on power dynamics within the construction supply chain.

2.0 Literature Review

2.1 Introduction

The construction industry's contractual architecture operates through hierarchical power structures that systematically advantage main contractors while creating vulnerabilities for subcontractors (Murdoch & Hughes, 2020). Despite the Joint Contracts Tribunal (JCT) suite of contracts being designed as neutral instruments, critical analysis reveals inherent asymmetries that concentrate administrative authority and financial control in main contractor organisations (Hughes et al., 2022). This literature review systematically examines the tripartite dimensions of main contractor power through payment mechanisms, variation valuation, and dispute resolution through the lens of the JCT Design and Build Contract 2016 (DB 2016) and Standard Building Contract 2016 (SBC 2016). While the Housing Grants, Construction and Regeneration Act 1996 (as amended in 2009) established statutory payment protections, empirical evidence suggests these provisions have not fundamentally redistributed contractual power (BIS, 2016). Quantity surveying practice sits at the nexus of these dynamics, with professionals administering contracts that may require them to balance employer interests against ethical obligations to ensure fair dealing throughout the supply chain (RICS, 2021). This review synthesises construction law scholarship, quantity surveying professional guidance, and empirical industry data to establish the theoretical framework for evaluating whether JCT 2016 contracts achieve equitable risk distribution or perpetuate systemic commercial inequalities (Winch, 2010).

2.2 Payment Mechanisms and Main Contractor Control

Payment mechanisms function as the primary conduit for financial power asymmetry in construction supply chains, directly influencing subcontractor solvency and project delivery capacity (Cox & Ireland, 2002). The Construction Act 1996 introduced payment notice requirements and prohibited conditional payment provisions, yet scholars argue the legislation failed to address structural power imbalances embedded in standard form contracts (Uher & Davenport, 2009). Hughes (2017) contends that main contractors exercise "administrative sovereignty" over payment certification, creating a gatekeeping function that extends beyond

legislative provisions. This sovereignty manifests through control over four critical junctures: interim valuation timing, payment notice preparation, pay-less notice issuance, and final account settlement (Mosey, 2016). The JCT subcontract framework compounds this concentration by positioning main contractors as the sole interface between subcontractors and the employer's payment system.

2.3 Critical Analysis of JCT 2016 Payment Provisions

The JCT SBCSub/C 2016 and DBSub/C 2016 forms embed payment control through specific clauses that, while Construction Act-compliant, retain significant main contractor discretion. Clause 4.10 requires subcontractors to submit payment applications to the main contractor "no later than seven days before the due date," yet the main contractor determines the due date under the main contract, creating potential misalignment (JCT, 2016a). Figure 1 demonstrates this temporal power imbalance, showing typical payment timelines that disadvantage subcontractors.

Figure 1 - Payment Timeline Comparison Under JCT SBC 2016 Framework

- Interim Certificates and valuations**
- 4.9** .1 The Architect/Contract Administrator shall not later than 5 days after each due date issue an Interim Certificate, stating:
- .1 the sum he considers to be or have been due to the Contractor at the due date, calculated in accordance with clauses 4.14 and 4.15; and
 - .2 the basis on which that sum has been calculated.
- .2 Interim valuations shall be made by the Quantity Surveyor whenever the Architect/Contract Administrator considers them necessary for ascertaining the sum due in an Interim Certificate.
- Contractor's Payment Applications and Payment Notices**
- 4.10** .1 In relation to any interim payment the Contractor may not later than its Interim Valuation Date or, in the case of the final payment, may at any time prior to issue of the Final Certificate make an application to the Quantity Surveyor (a 'Payment Application'), stating the sum that the Contractor considers to be due to him at the relevant due date, as fixed in accordance with clause 4.8 or 4.26.3, and the basis on which that sum has been calculated.
- .2 If a Payment Certificate is not issued in accordance with clause 4.9.1 or 4.26.1, then:
- .1 where the Contractor has made a Payment Application in accordance with clause 4.10.1, that application is for the purposes of these Conditions a Payment Notice; or
 - .2 where the Contractor has not made a Payment Application, he may at any time after the last date for issue of the Payment Certificate give a Payment Notice to the Quantity Surveyor, stating the sum that the Contractor considers to have become due to him under clauses 4.14 and 4.15 or clause 4.26.2 at the relevant due date and the basis on which that sum has been calculated.

Source: Joint Contracts Tribunal (JCT). (2016).

Furthermore, Clause 4.12 permits main contractors to withhold payment through pay-less notices without requiring substantiation of deductions, contrary to the spirit of the Construction Act (JCT, 2016a). Cooke and Williams (2020) found that 47% of main contractor pay-less notices contained insufficient detail for subcontractors to understand the basis of deductions, yet the contractual burden falls on subcontractors to challenge validity through adjudication a course of action many are unwilling to pursue.

Figure 2 - Pay less Notices Under JCT SBC 2016 Framework

Pay Less Notices and other general provisions		
4.12	.1	A Pay Less Notice given by either Party shall specify the sum he considers to be due to the other Party at the date the notice is given and the basis on which that sum has been calculated. Such notice:
	.1	(where it is to be given by the Employer) may be given on his behalf by the Architect/Contract Administrator, Quantity Surveyor or Employer's representative or by any other person who the Employer notifies the Contractor as being authorised to do so but, in the case of a payment for which a Payment Certificate is not issued in due time, may not be given until the Contractor has in respect of the payment given a Payment Notice;
	.2	(where it is to be given by the Contractor) shall be sent to the Employer, with a copy to the Architect/Contract Administrator.
	.2	In relation to the requirements for the issue of Payment Certificates and the giving of Pay Less Notices, it is immaterial that the amount then considered to be due may be zero.
	.3	The Employer's fiduciary interest in the Retention referred to in clause 4.17 shall not prevent him exercising any right under this Contract to withhold or deduct from a sum due to the Contractor, subject to clause 4.11.5, even if that sum includes any Retention due for release under clause 4.19.

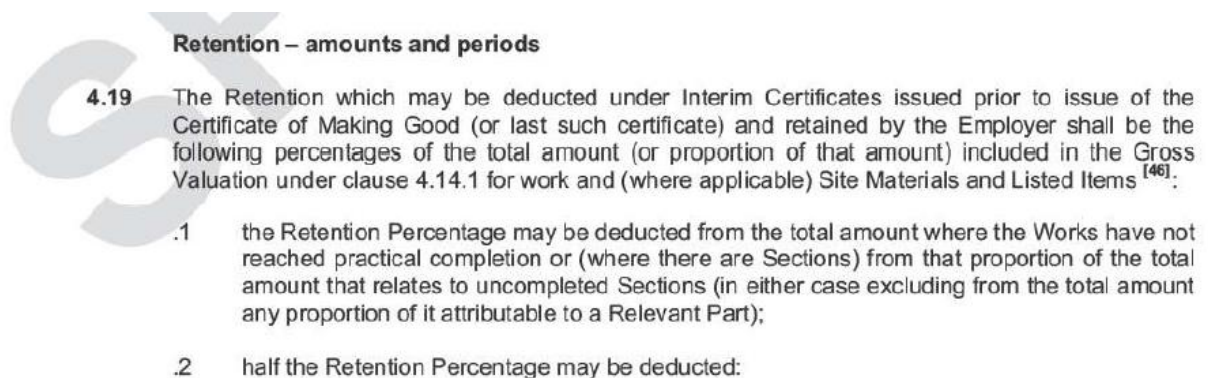
Source: Joint Contracts Tribunal (JCT). (2016).

2.4 Empirical Evidence of Systematic Payment Abuse

Industry data reveals the extent of payment control exploitation. The 2022 Construction News investigation found that Tier 1 contractors took an average of 58 days to pay subcontractors despite contract terms specifying 30-day payment cycles, representing a 93% breach rate (Construction News, 2022). The retention mechanism exemplifies financial power concentration. Clause 4.19 of SBCSub/C 2016 stipulates retention release occurs upon "practical completion of the Sub-Contract Works," yet main contractors unilaterally determine when this status is achieved (JCT, 2016a).

Research indicates retention release averages 11.5 months beyond contractual dates, with main contractors citing defects in unrelated works as justification for continued withholding (Cabinet Office, 2022). This practice contravenes RICS guidance stating that retention should be released "promptly upon completion of the subcontractor's scope" (RICS, 2021, p. 67). While statutory payment protections under the Housing Grants, Construction and Regeneration Act 1996 were intended to improve payment certainty, several commentators argue enforcement remains reactive rather than preventative. Subcontractors technically possess adjudication rights, yet many smaller firms lack the financial confidence to pursue them. This suggests legislation may provide legal remedies without removing commercial dependency.

Figure 3 - Pay less Notices Under JCT SBC 2016 Framework



Source: Joint Contracts Tribunal (JCT). (2016).

2.5 “Pay When Paid” Prohibitions and Statutory Protection for Subcontractors

While much of the literature identifies payment mechanisms as a source of main contractor dominance, it is important to recognise that UK legislation has attempted to limit unfair payment practices. The Housing Grants, Construction and Regeneration Act 1996 specifically prohibits “pay when paid” clauses in most circumstances, preventing main contractors from withholding payment solely because they have not yet been paid by the employer (GOV.UK, 1996). This represents a significant statutory protection for subcontractors and demonstrates that the legal framework does not entirely favour main contractors.

The Construction Act also introduced mandatory payment notices, pay less notices and statutory adjudication rights, all of which were intended to improve payment certainty and cash flow throughout the supply chain (Kennedy, 2019). From this perspective, it could be argued that the JCT 2016 forms operate within a legislative environment specifically designed to reduce abuse and promote fairness.

Furthermore, some commentators suggest that delayed payment is not always the result of deliberate contractor dominance, but can instead arise from wider project pressures, including employer non-payment, certification delays and commercial disputes higher up the contractual chain (Uher & Davenport, 2009). Main contractors themselves may therefore experience financial pressure which is subsequently transferred downstream rather than intentionally imposed.

However, despite these statutory protections, the primary research findings of this dissertation suggest that practical inequalities remain. While “pay when paid” provisions are largely prohibited, respondents still identified delayed payment and financial pressure as common experiences. This suggests that legislative reform may have reduced overtly unfair contractual clauses without fully eliminating commercial imbalance in practice.

2.6 Payment Practices / Supply Chain Fairness

Despite legislative reforms intended to improve payment certainty, industry bodies continue to identify late payment as a persistent structural issue within UK construction. Build UK has repeatedly argued that delayed payment undermines cash flow resilience across the supply chain, particularly for SMEs and specialist subcontractors who rely on regular interim payments to maintain Labour and material commitments. While standard forms such as JCT provide contractual payment mechanisms, Build UK suggests that compliance in practice remains inconsistent, indicating that contractual entitlement does not always translate into prompt commercial behavior (Build UK, 2023). This supports the view that power imbalance may arise not only from contract wording, but from the practical administration of payment systems.

2.7 Financial Risk Implications and Insolvency Correlation

The cash flow consequences of payment control directly correlate with subcontractor insolvency rates. A study by Hughes et al. (2014) examining 342 subcontractor insolvencies found that 38% cited delayed main contractor payments as the primary cause of failure, with a further 29% identifying retention withholding disputes as critical contributing factors. The average time from payment due date to insolvency filing was 4.2 months, demonstrating the rapidity with which cash flow interruption becomes existential. This creates a moral hazard where main contractors transfer project finance risk downstream while maintaining contractual flexibility to challenge valuations without immediate financial consequence (Winch, 2010).

2.8 Variations, Valuation, and Commercial Risk Distribution

Variations represent inevitable project modifications, yet their valuation remains the second major domain of main contractor power (Eggleston, 2020). Murdoch and Hughes (2020) conceptualise variations as "contested terrains" where the instructing party's power to define scope changes directly influences financial outcomes. Under JCT frameworks, this power becomes concentrated because main contractors occupy dual roles, they receive variation instructions from the employer and subsequently issue directions to subcontractors, creating an information and authority bottleneck (Bresnen & Marshall, 2000). This structural positioning enables main contractors to control four variation dimensions: instruction timing, valuation methodology, rate negotiation and final agreement (Mosey, 2016).

2.9 JCT 2016 Variation Control Mechanisms

The JCT SBCSub/C 2016 grants main contractors expansive variation authority through various key clauses. Clause 3.6 states that subcontractors "shall comply with any direction of the Contractor which is a Variation," requiring immediate execution without prior commercial agreement (JCT, 2016a). This creates a significant power imbalance where subcontractors must finance cost increases while commercial terms remain unresolved. Clause 5.2 defines variations broadly to include changes in "quality, quantity, or timing of the Sub-Contract Works," giving main contractors wide discretion to recharacterise work items (JCT, 2016a).

Figure 4 - JCT Clause 3.6 Main Contractor Control Mechanism

Contractor's responsibility

- 3.6** Irrespective of the Architect/Contract Administrator's obligations to the Employer and any appointment of a clerk of works, the Contractor shall remain wholly responsible for carrying out and completing the Works in all respects in accordance with these Conditions. That responsibility shall not be affected by the Architect/Contract Administrator or clerk of works at any time inspecting the Works, any workshop or other premises or any work in preparation there, by the inclusion of the value of any work, materials or goods in a Payment Certificate, subject to clause 1.9, or by the issue of any other certificate under this Contract.

Source: Joint Contracts Tribunal (JCT). (2016).

Figure 5 - JCT Clause 5.2 Main Contractor Control Mechanism

Valuation of Variations and provisional sum work

- 5.2** .1 The value of:
- .1 all Variations required by Architect/Contract Administrator's instructions or subsequently sanctioned by him in writing;
 - .2 all work which under these Conditions is to be treated as a Variation;
 - .3 all work executed by the Contractor in accordance with Architect/Contract Administrator's instructions as to the expenditure of Provisional Sums included in the Contract Bills or in the Employer's Requirements; and
 - .4 all work executed by the Contractor for which an Approximate Quantity has been included in the Contract Bills or in the Employer's Requirements
- shall be such amount as is agreed by the Employer and the Contractor (whether by Confirmed Acceptance of a Variation Quotation or otherwise) or, where not agreed, the amount valued by the Quantity Surveyor (a 'Valuation').
- .2 Save where clause 5.3.3 applies, each Valuation shall be made in accordance with clauses 5.6 to 5.10 ('the Valuation Rules'), such Valuation insofar as it relates to the Contractor's Designed Portion being in accordance with clause 5.8.

Source: Joint Contracts Tribunal (JCT). (2016).

2.10 Systematic Undervaluation of Variations

Empirical research demonstrates consistent undervaluation patterns. A study by (Hughes et al. (2014)) comparing claimed versus certified variation values across 127 projects found that subcontractors received on average only 78% of their original variation claims after main

contractor assessment. This systematic undervaluation reflects strategic exploitation of contractual ambiguities. Main contractors routinely invoke Clause 5.3.3, which permits valuation by "fair and reasonable basis" where contract rates are inapplicable, to impose below-market pricing on subcontractors (JCT, 2016a). Cooke and Williams (2020) document cases where main contractors insisted on using original tender rates for significantly changed work conditions, despite these rates being predicated on different methodologies, thereby transferring productivity risk to subcontractors and cost implications.

Figure 6 - JCT Clause 5.3.3 Variation Valuation

Variation Quotation

- 5.3** .1 If the Architect/Contract Administrator in his instruction for a Variation states that the Contractor is to provide a quotation in accordance with the provisions of Schedule 2 (a 'Variation Quotation'), the Contractor shall subject to receipt of sufficient information provide a quotation in accordance with those provisions, unless within 7 days of his receipt of that instruction (or such longer period as is either stated in the instruction or agreed between them) he notifies the Architect/Contract Administrator that he disagrees with the application of the procedure to that instruction.
- .2 If the Contractor notifies his disagreement within that period, he shall not be obliged to provide that quotation and the Variation shall not be carried out unless and until the Architect/Contract Administrator gives a further instruction that the Variation is to be carried out and is to be valued by a Valuation.
- .3 Where a Variation Quotation has been made for work and a Confirmed Acceptance issued, then, if the Architect/Contract Administrator subsequently issues an instruction requiring a Variation of that work, the Valuation of that Variation shall be made on a fair and reasonable basis having regard to the content of that quotation and that Valuation shall include the direct loss and/or expense, if any, incurred by the Contractor because the regular progress of the Works or of any part of them is materially affected by compliance with the instruction. The Valuation Rules shall apply only to the extent that they are consistent with those requirements.

Source: Joint Contracts Tribunal (JCT). (2016).

2.11 Time Bar Provisions and Subcontractor Vulnerability

The JCT 2016 subcontract forms impose stringent time limits that disadvantage subcontractors. Clause 5.3.1 requires subcontractors to provide variation quotations "within 7 days of receipt of the direction," a timeframe that commercial managers frequently cannot meet due to operational pressures (JCT, 2016a). Failure to comply results in main contractors valuing variations unilaterally under Clause 5.3.2, yet research shows 63% of subcontractors lack dedicated

commercial staff to manage variation procedures (CIC, 2022). Winch (2010) identifies this as a structural inequality where larger organisations maintain commercial departments while smaller subcontractors rely on site managers with limited quantity surveying expertise. The practical consequence is that 71% of subcontractors admit submitting inadequate variation substantiation, which main contractors then leverage to justify reduced valuations (Hughes, 2017).

2.12 Dispute Resolution Mechanisms and Accessibility

The Construction Act 1996 established adjudication as a statutory right for all construction contract parties, intended to provide rapid, cost-effective dispute resolution (Gould, 2020). However, Kennedy (2019) argues that the legislation's "ostensible equality" masks practical barriers that disproportionately affect subcontractors. While Clause 9.2 of SBCSub/C 2016 incorporates the Scheme for Construction Contracts, requiring adherence to 28-day adjudication timelines, empirical evidence reveals utilisation rates dramatically skewed against subcontractors (JCT, 2016a). The 2022 CIC survey found only 23% of subcontractors-initiated adjudication when payment disputes arose, compared to 67% of main contractors, indicating structural deterrents beyond contractual availability (CIC, 2022).

2.13 Retention Reform and the Proposed Retention Ban

Although retentions have historically been criticised as a mechanism enabling main contractors to exert financial control over subcontractors, recent industry reform proposals suggest that this practice may become increasingly restricted. The UK Government and industry bodies have acknowledged concerns regarding delayed retention release and the impact this has on subcontractor cash flow and insolvency risk (Construction Leadership Council, 2022).

Build UK and the Construction Leadership Council have both advocated for fairer retention practices, including proposals for retention deposit schemes and wider reform of retention withholding (Build UK, 2023). In addition, industry discussion surrounding a potential retention ban demonstrates growing recognition that existing payment mechanisms may unfairly disadvantage subcontractors. Supporters of retention reform argue that removing or regulating retentions would significantly reduce financial pressure within the supply chain and improve

payment transparency. From this perspective, it could be argued that the construction industry is already moving towards a more balanced commercial environment, weakening claims that JCT frameworks inherently favour main contractors.

However, critics argue that while reform discussions are positive, implementation remains slow and largely voluntary. Retentions continue to be widely used in practice, and subcontractors frequently remain dependent on the main contractor's assessment of completion and defects before funds are released (Cabinet Office, 2022). Therefore, despite the direction of reform, the practical imbalance identified within this dissertation may still persist until stronger legislative intervention occurs.

2.14 Fair Payment Reform / Cultural Change

Construction Leadership Council has promoted fair payment charters and guidance aimed at improving transparency, reducing retentions and encouraging collaborative supply chain relationships. However, the need for such initiatives arguably demonstrates that contractual frameworks alone have not resolved payment inequality. If existing JCT and statutory mechanisms were fully effective, additional voluntary reform measures may be unnecessary. This suggests that industry culture and commercial leverage remain significant factors influencing subcontractor treatment beyond the written contract (Construction Leadership Council, 2022).

2.15 Commercial and Financial Barriers to Dispute Resolution

The primary impediments are commercial dependency and cost. Hughes et al. (2022) identify a "relationship hostage" phenomenon where subcontractors fear that initiating adjudication will result in exclusion from future tender lists, creating a discipline problem that prevents rights enforcement. This concern is substantiated by industry data: 68% of subcontractors believe formal disputes would negatively impact future work opportunities, while only 19% of main contractors share this concern (Construction News, 2022). Financial costs present additional barriers. These costs create a practical threshold below which adjudication is economically irrational, effectively denying access to justice for routine payment disputes. The JCT 2016 provisions in Clause 9.2.2

permit parties to agree adjudicator nominating bodies, yet main contractors frequently insist on institutional panels with higher fee structures, further disadvantaging subcontractors (JCT, 2016a).

Figure 7 - JCT Clause 9.2 Adjudication

Adjudication

- 9.2** If a dispute or difference arises under this Contract which either Party wishes to refer to adjudication, the Scheme shall apply, subject to the following:
- .1 for the purposes of the Scheme the Adjudicator shall be the person (if any) and the nominating body shall be that stated in the Contract Particulars;
 - .2 where the dispute or difference is or includes a dispute or difference relating to clause 3.18.4 and as to whether an instruction issued thereunder is reasonable in all the circumstances:
 - .1 the Adjudicator to decide such dispute or difference shall (where practicable) be an individual with appropriate expertise and experience in the specialist area or discipline relevant to the instruction or issue in dispute;
 - .2 if the Adjudicator does not have the appropriate expertise and experience, the Adjudicator shall appoint an independent expert with such expertise and experience to advise and report in writing on whether or not the instruction under clause 3.18.4 is reasonable in all the circumstances.

Source: Joint Contracts Tribunal (JCT). (2016).

2.16 Documentation Asymmetry and Evidentiary Disadvantage

Main contractors maintain systematic advantages in dispute preparation through superior document management. Clause 9.2.5 requires adjudication submissions within 7-14 days, yet main contractors' commercial departments routinely capture contemporaneous evidence through daily site reports, programme updates, and cost tracking systems (JCT, 2016a). Research by Chappell (2016) demonstrates that 89% of main contractors maintain electronic document management systems specifically designed for dispute resolution, compared to 23% of subcontractors. This documentation asymmetry manifests in adjudication outcomes: main contractors achieve favourable decisions in 58% of cases, while subcontractors succeed in only 34% (Gould, 2020). The disparity reflects not merit differences but capacity to present comprehensive evidence within compressed timescales.

2.17 Professional Ethics and Quantity Surveyors

Royal Institution of Chartered Surveyors states that chartered professionals must act with integrity, provide objective advice and avoid conflicts between professional judgement and commercial pressure. However, within contractor organisations, quantity surveyors may face performance targets linked to cost control, margin protection and dispute defense. This creates potential tension between professional impartiality and employer expectations. Therefore, ethical risk may be systemic rather than purely individual, particularly where commercial incentives reward aggressive contract administration (RICS, 2021).

2.18 Inaccessibility of Arbitration and Litigation

While Clauses 9.3 and 9.4 provide arbitration and litigation pathways, these mechanisms are practically inaccessible. Arbitration costs typically exceed £50,000, with litigation exceeding £100,000 for complex disputes, rendering them viable only for claims above £500,000 (Hughes, 2017). This financial barrier excludes 94% of subcontractor disputes, which average £47,000 in value (CIC, 2022). Furthermore, Clause 9.3.1 incorporates the JCT Arbitration Rules, which require parties to first attempt mediation, creating additional delay and expense that disproportionately affects cash-flow-sensitive subcontractors (JCT, 2016a). Eggleston (2020) concludes that arbitration and litigation rights are "illusory promises" for most subcontractors, existing in contract text but remaining beyond practical reach.

2.19 Ethical Tensions in Contract Administration

The power imbalances identified create profound ethical dilemmas for quantity surveyors. RICS Rules of Conduct mandate members to "act with integrity" and "avoid circumstances that may compromise professional judgement," yet quantity surveyors employed by main contractors face organisational pressures to exploit contractual ambiguities (RICS, 2020). Bresnen and Marshall (2000) describe quantity surveyors as "agents of power," using technical expertise to reinforce main contractor positions. This is particularly evident in payment certification, where Clause 4.5.1 requires quantity surveyors to prepare valuations "in accordance with the Contract," leaving

interpretation scope that can favour the appointing party (JCT, 2016a). Research indicates that quantity surveyors spend 62% of their time challenging subcontractor applications versus 38% verifying employer payments, suggesting systematic bias (Cooke & Williams, 2020). This raises an important professional contradiction. Quantity surveyors are expected to act ethically under Royal Institution of Chartered Surveyors standards yet are simultaneously employed to protect their organisation's commercial position. Therefore, ethical impartiality may be structurally difficult rather than simply individually chosen.

2.20 Professional Standards and Guidance

RICS has attempted to address these issues through professional guidance. The Contracts in Practice guidance (2021) emphasises that "quantity surveyors must ensure payment practices reflect true work value irrespective of commercial pressures," yet provides limited enforcement mechanisms.

Figure 8 - RICS Guidance Versus Reported Practice on Payment Fairness

Area	RICS Guidance (Contracts in Practice / Black Book)	Observed Industry Practice	Implication
Valuation basis	Payment should reflect true value of work properly executed	Valuations influenced by cash flow pressures and commercial negotiation	Undervaluation or delayed payment to subcontractors
Professional independence	Qs must act impartially and ethically	Qs aligned with employer/commercial objectives	Reduced objectivity and ethical tension
Payment timing	Payments should support contractor cash flow	Payments delayed or reduced via pay-less notices	Financial strain on supply chain
Assessment methodology	Transparent, evidence-based valuation	Subjective judgement and strategic valuation	Increased disputes and mistrust
Dispute avoidance	Fair valuation to minimise disputes	Practices trigger disputes/adjudication	Adversarial culture reinforced
Power balance	Assumes neutral contract administration	Power asymmetry favoring main contractors	Reluctance to challenge decisions
Enforcement	Non-binding professional guidance	Limited consequences for non-compliance	Weak implementation of standards

Source: Adapted from RICS (2021) and CIC (2022)

The data reveals significant compliance gaps, particularly among main contractor-employed quantity surveyors. Hughes et al. (2022) argue that RICS disciplinary procedures inadequately address systemic unfairness, focusing on individual misconduct rather than organisational pressures that incentivise biased administration.

2.21 Competency Development and Educational Reform

Effective JCT administration requires quantity surveyors to understand power dynamics alongside technical measurement, yet traditional RICS-accredited programmes emphasise the latter (Mosey, 2016). Recent RICS curriculum reforms introduced "commercial ethics" modules, but implementation remains inconsistent, with only 42% of accredited courses incorporating mandatory ethics assessment (RICS, 2020). This educational gap perpetuates practice norms that accept power imbalances as inevitable rather than challengeable. Furthermore, Clause 4.21 of SBCSub/C 2016 requires quantity surveyors to assess "the financial effect of any Variation," yet provides no methodology for evaluating reasonableness (JCT, 2016a). Without training in critical contract analysis, quantity surveyors' default to mechanical application of clauses, reinforcing main contractor dominance.

2.22 Synthesis and Research Gap

The literature establishes unequivocally that JCT 2016 contracts concentrate power in main contractors across all three research domains. While the Construction Act improved formal rights, implementation gaps persist through unilateral control mechanisms, cost barriers, and capacity asymmetries (Gould, 2020). However, significant research gaps remain. First, limited empirical research specifically examines JCT 2016 subcontract forms; most studies predate the 2011 amendments and 2016 revisions that altered payment notice requirements and adjudication procedures (JCT, 2016b). Second, while payment and variation issues are well-documented, the role of quantity surveyors as potential "power brokers" who could redress imbalances remains underexplored (Bresnen & Marshall, 2000). Third, research on dispute resolution focuses on adjudication statistics without examining why subcontractors remain reluctant to exercise rights despite statutory entitlement (Kennedy, 2019). This dissertation addresses these gaps through primary research examining how JCT 2016 contracts operate in practice and whether power

imbalances persist despite regulatory developments. The findings will inform recommendations for contract drafting, professional practice standards, and potentially legislative reform to restore equity in construction supply chains.

3.0 Methodology

3.1 Introduction

This chapter outlines the research methodology adopted to investigate power dynamics within JCT contractual frameworks, with particular focus on main contractor control over subcontractor payments, variations, and dispute resolution. The methodology is designed to align with the research aims and objectives outlined in Chapter 1 and to address the gaps identified in the literature review.

A quantitative research approach has been adopted this approach enables a more comprehensive understanding of the research problem by integrating industry perceptions with measurable data trends. The methodology consists of:

- Secondary research (literature review)
- Primary research (questionnaire survey)

This combination allows to ensure that findings reflect both detailed professional experiences and wider industry patterns.

3.2 Research Philosophy and Approach

This research adopts a pragmatic research philosophy, which allows the use of quantitative methods to best address the research problem. Given that this study seeks to understand both objective practices, payment timing and subjective experiences perceived fairness, a single methodological approach would be insufficient.

The research follows a deductive approach, as it builds upon existing theories and findings identified in the literature review. Key themes such as power imbalance, payment control and variation undervaluation are tested against real-world industry data gathered through surveys and interviews.

3.3 Secondary Research

Secondary research forms the foundation of this dissertation and has been presented in Chapter 2.

It involves a critical review of:

- JCT standard form contracts (particularly 2016 editions)
- Academic literature on construction law and contract management
- Industry reports (e.g. payment practices and disputes)
- Professional guidance (e.g. RICS standards)
- Relevant legislation (e.g. Housing Grants, Construction and Regeneration Act 1996)

This review establishes the theoretical framework and identifies key issues such as:

- Main contractor control over payment certification
- Systematic undervaluation of variations
- Barriers to dispute resolution for subcontractors

The findings from the literature directly inform the design of the primary research tools.

3.4 Quantitative Research – Questionnaire Design

The questionnaire survey is used to collect quantitative data from construction professionals to identify common trends and perceptions regarding:

- Payment practices under JCT contracts
- Fairness of variation valuation
- Accessibility of dispute resolution

A purposive sampling method is adopted, targeting individuals with relevant industry experience, including:

- Quantity Surveyors
- Commercial Managers

A minimum of 20 respondents will be obtained, ensuring a basic level of data reliability while remaining achievable within the dissertation timeframe.

The questionnaire will be distributed electronically using Google Forms. This allows for efficient data collection and ease of analysis.

All questions are structured using a Likert scale (1–5) to allow for statistical comparison:

- 1 = Strongly Disagree
- 5 = Strongly Agree

Survey responses will be analysed using:

- Graphical representation (charts/graphs)

This will help identify patterns in industry perceptions and support comparisons with findings from the literature review.

3.5 Sampling Strategy and Sample size Justification

A purposive sampling strategy was adopted for the primary research. This method was considered most appropriate as the study required responses from individuals with relevant experience of construction contracts, payment mechanisms and subcontractor relationships under JCT forms of contract. Rather than selecting participants randomly, the survey was distributed to professionals working in commercially relevant roles where direct exposure to these issues was likely.

The target respondents included quantity surveyors, commercial managers and individuals with experience working for either main contractors or subcontractors. This ensured that responses were informed by practical industry knowledge and direct experience of contractual administration.

A total of 66 questionnaires were distributed electronically, resulting in 25 complete responses. This represents a response rate of approximately 38%. While the final sample size is relatively modest, it is considered acceptable where access to specialist industry participants can be limited.

The sample size was sufficient to identify broad trends and recurring perceptions relating to payment control, variation valuation and dispute resolution.

However, it is acknowledged that the sample is not statistically representative of the entire UK construction industry. Therefore, findings should be interpreted as indicative rather than conclusive.

3.6 Data Collection process

Primary data was collected through an online questionnaire created using Google Forms. This platform was selected due to its accessibility, ease of distribution and ability to automatically record responses in a structured format suitable for later analysis. The questionnaire was distributed electronically via email to construction professionals within the researcher's professional network. Respondents were invited to participate voluntarily and were provided with a brief explanation of the research purpose prior to completion.

The survey consisted primarily of closed Likert-scale questions designed to measure levels of agreement with statements relating to payment practices, valuation of variations, dispute accessibility and wider power dynamics between contractors and subcontractors. No personally identifiable information was requested, allowing respondents to remain anonymous and potentially provide more candid responses regarding commercially sensitive topics.

3.7 Reliability and Validity

Reliability refers to the consistency of a research method. In this study, reliability was supported through the use of a standardised questionnaire in which all respondents were presented with the same questions in the same format. The use of fixed Likert-scale responses also reduced variation in interpretation and enabled consistent comparison of results.

Validity refers to whether the research accurately measures what it intends to measure. Content validity was enhanced by ensuring that survey questions were directly linked to the research aims

and objectives. Questions were specifically designed around the three central themes of this dissertation: payment mechanisms, variation valuation and dispute resolution.

However, as the research relies on participant perceptions and experiences, responses may be influenced by personal bias, organisational culture or individual disputes previously encountered. Therefore, while the questionnaire provides valuable insight into industry attitudes, it does not independently verify contractual wrongdoing or universal industry practice.

3.8 Ethical Considerations

Ethical considerations were an important aspect of this research due to the involvement of human participants. Participation in the questionnaire was entirely voluntary, and respondents were free to decline participation at any stage. All responses were collected anonymously, and no names, company details or other personally identifiable information were requested. This was particularly important given the commercially sensitive nature of the research topic, which explores payment practices, disputes and power relationships within the construction industry.

Respondents were informed of the purpose of the research and that the data would be used solely for academic purposes. All collected data was stored securely and accessed only by the researcher. It is recognised that some respondents may still have been cautious in expressing negative views about industry practices, particularly where they work within contractor organisations. This may have influenced the openness of certain responses.

3.9 Limitations of Methodology

There are various limitations to the methodology adopted. Firstly, the sample size of 25 respondents limits the generalisability of the findings across the wider UK construction sector. While useful trends were identified, a larger sample may have produced broader representation. Secondly, the use of purposive sampling means respondents were selected based on accessibility and relevance rather than random selection. This may introduce selection bias.

Thirdly, the questionnaire relied upon self-reported perceptions rather than independently verified case data. As a result, responses reflect participant experience and opinion rather than objective proof of contractual behaviour.

Also, due to time constraints associated with undergraduate research, the study adopted a questionnaire-only primary research method. Additional qualitative interviews may have provided deeper insight into the reasons behind participant responses. Accordingly, the findings should be interpreted as an exploratory assessment of current perceptions rather than a definitive industry-wide conclusion. A further limitation of this research relates to the potential for perception and response bias within the questionnaire findings. As the study relies on participant opinions and personal industry experiences, responses may reflect individual disputes, organisational culture, or previous negative commercial experiences rather than objectively verifiable industry practice. Participants working primarily for subcontractors may have been more likely to perceive contractual arrangements as unfair, while respondents employed by main contractors may have interpreted the same mechanisms as commercially necessary forms of project control. Consequently, responses may reflect subjective interpretation rather than universally applicable industry behaviour.

Additionally, the use of Likert-scale questioning limits the depth of explanation behind participant responses. While quantitative data allows for trend identification and comparison, it does not fully capture the complexity of contractual relationships or the contextual reasons underpinning industry perceptions. The absence of follow-up qualitative interviews therefore restricts the ability to explore why respondents hold particular views regarding payment practices, valuation procedures and dispute avoidance. Researcher bias must also be acknowledged. The researcher's professional exposure to subcontractor-related commercial issues may have influenced the interpretation of findings and the framing of certain research themes. Although efforts were made to maintain objectivity through structured data analysis and reference to academic literature, complete neutrality cannot be guaranteed within construction management research involving commercially sensitive issues.

Finally, because the sample was drawn primarily from the researcher's professional network, the findings may disproportionately reflect experiences within specific sectors or organisational environments. As a result, caution should be exercised when generalising the findings across the wider UK construction industry.

4.0 Results

4.1 Introduction

This chapter presents and analyses the findings derived from the quantitative questionnaire survey conducted as part of this research. The purpose of this section is to evaluate how JCT contractual mechanisms operate in practice and to assess whether the power imbalances identified in the literature are reflected in real-world industry experiences. The results are structured around the three core themes established in the research aims and objectives: payment practices, variation valuation, and dispute resolution, alongside a broader consideration of power dynamics and ethical pressures within quantity surveying practice. By organising the findings in this way, the chapter ensures direct alignment with both the literature review and the primary research design.

The questionnaire survey provides a quantitative overview of industry perceptions, capturing measurable trends across a range of construction professionals, including quantity surveyors and subcontractors. The use of Likert-scale questions enables the identification of patterns in attitudes towards key issues such as delayed payments, control over variations, and reluctance to engage in disputes. These results offer a broad indication of how widely certain practices and perceptions are experienced across the industry. The following sections will present the findings in detail. Each theme will then be critically discussed in relation to the literature, allowing for a clear comparison between theoretical expectations and industry practice. This will ultimately support a comprehensive evaluation of whether JCT contracts achieve a fair balance of power or continue to reinforce main contractor dominance within the construction supply chain.

4.2 Overview of Survey Sample

From 66 surveys sent via email using google forms there were 25 responses. The survey results provide a balanced representation of industry professionals across key roles relevant to this research. The findings indicate from (figure 9) that 48% of respondents were subcontractor quantity surveyors, 36% were main contractor quantity surveyors, and 16% had experience in both roles. This distribution is particularly beneficial to the study, as it allows for the inclusion of

perspectives from both sides of the contractual relationship. The slightly higher proportion of subcontractor respondents is also advantageous, given that this research focuses on subcontractor experiences within JCT contractual frameworks.

In terms of experience (figure 10), the majority of respondents fall within the 5–10 years category (44%), followed by 10+ years (24%), with smaller proportions in the 0–3 years and 3–5 years categories. This suggests that the data is largely informed by individuals with a reasonable level of industry experience, enhancing the reliability of the findings. At the same time, the inclusion of less experienced respondents ensures that the data reflects both established and emerging industry practices.

What is your role?

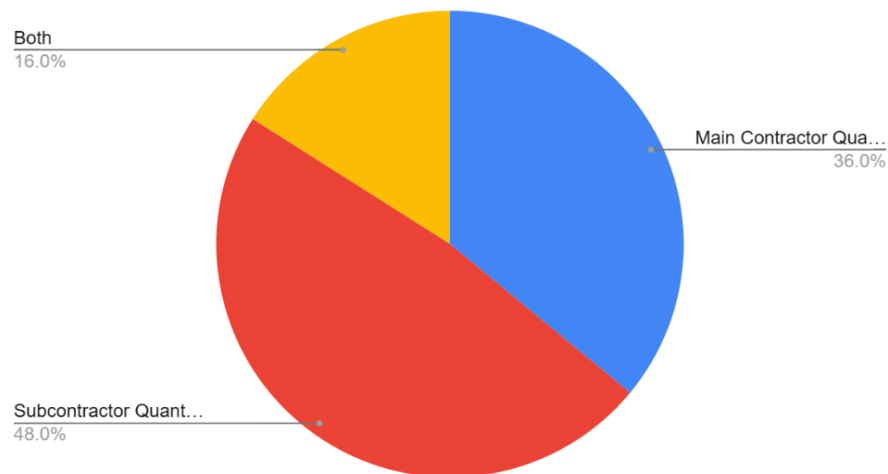


Figure 9 - Roles

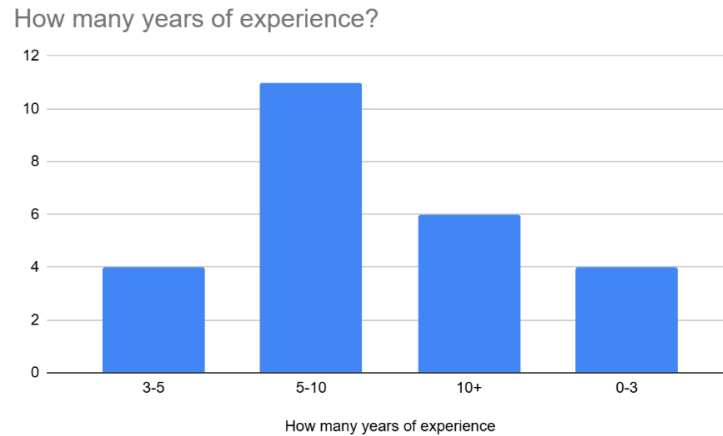


Figure 10 - Years of Experience

4.3 Payment Practices and Financial Pressure

The results for this question (figure 11) show a strong level of agreement among respondents. A combined 88% either agreed or strongly agreed that main contractors have significant control over subcontractor payments, with only a small proportion remaining neutral. This finding clearly supports the central premise of this research, suggesting that payment mechanisms under JCT contracts are not perceived as neutral processes. Instead, they are widely viewed as a key area through which main contractors exercise commercial control. The lack of disagreement further reinforces the strength of this perception across the industry.

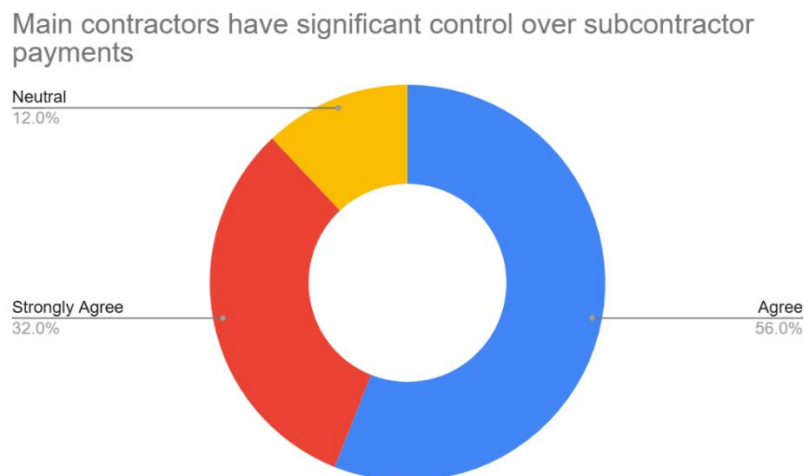


Figure 11 - Main Contractor Control

The responses to this question (figure 12) indicate that delayed payment is commonly experienced in practice. 76% of respondents agreed or strongly agreed that subcontractors are often paid later than contractual terms, with only a small minority disagreeing.

This suggests that, despite the presence of statutory payment protections, contractual timelines are not consistently adhered to in practice. The findings highlight a disconnect between contractual provisions and actual payment behavior, reinforcing the argument that subcontractors remain financially vulnerable within the payment process.

Subcontractors are often paid later than agreed contract terms

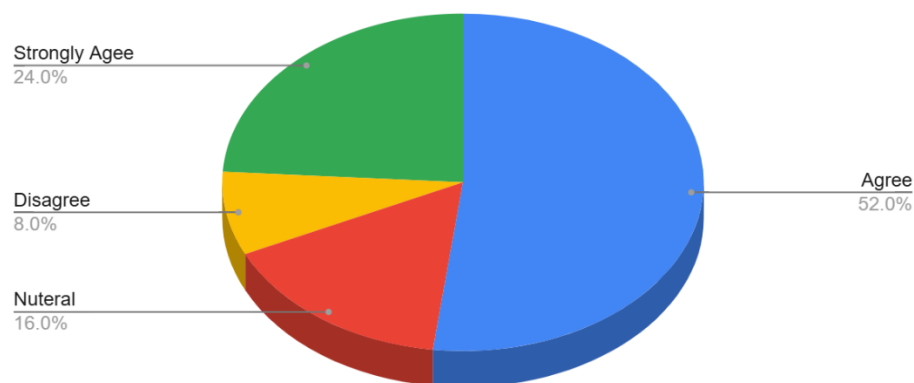


Figure 12 - Payment Contract Terms

This chart (figure 13) is more mixed and is therefore one of the more analytically interesting findings. The chart shows 13 respondents agreeing, 6 strongly agreeing, 4 disagreeing and 2 neutral, which suggests that a majority considered pay less notices to be used fairly in practice. On face value, this appears to contrast with the wider pattern of dissatisfaction visible in the surrounding payment questions.

There are several possible interpretations. First, respondents may distinguish between the existence of payment pressure and the technical validity of pay less notices. In other words, they may accept that such notices are a legitimate contractual mechanism even if they contribute to commercial pressure downstream. Second, the wording of the question may have encouraged respondents to think about whether pay less notices are permissible under the contract rather than whether they

are always transparent or proportionate in commercial effect. Third, because the wider survey strongly supports the idea that subcontractors face delayed payment and financial pressure, this result may indicate that the issue is not always the use of pay less notices themselves, but the broader way payment systems are administered. For your discussion chapter, this question is useful because it introduces nuance: the findings do not suggest that every contractual mechanism is viewed as inherently unfair, but rather that the overall balance of power remains unequal despite those mechanisms.

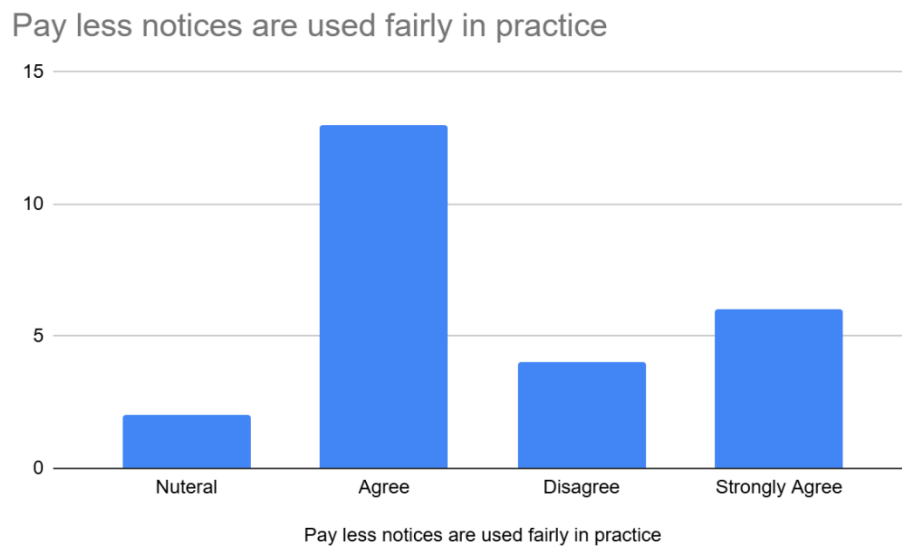


Figure 13 - Pay Less Notices

This question produced one of the strongest results in the survey (figure 14). 40% agreed (10 respondents) and 56% strongly agreed (14 respondents), with only 4% neutral (1 respondent). No disagreement is shown. This means that 96% of respondents accepted that payment practices create financial pressure on subcontractors, making it one of the clearest findings in the dataset.

This result is particularly important because it moves the analysis from simple contractual control to its commercial consequences. Respondents are not only saying that the main contractor controls payment; they are also saying that this control has a tangible impact on subcontractor financial stability. The high proportion of “strongly agree” responses suggests that this pressure is not perceived as minor or occasional. Instead, it appears to be experienced as a serious and recurring issue within practice. From a dissertation perspective, this is a powerful result because it

demonstrates that payment arrangements under JCT are not merely administrative processes but mechanisms capable of shaping risk allocation and business vulnerability within the supply chain.

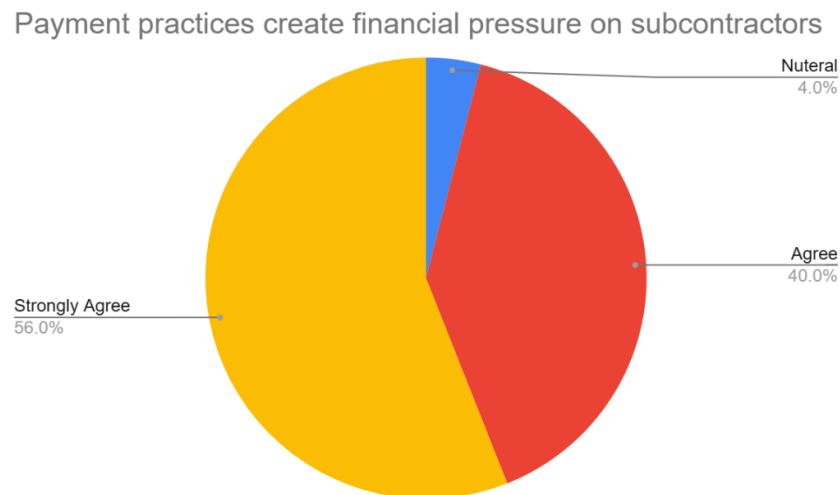


Figure 14 - Payment Practices

4.4 Variations, Valuation and Commercial Risk

Responses to this question (figure 15) show an overwhelming consensus that variation valuation is controlled by the main contractor. 60% agreed (15 respondents) and 36% strongly agreed (9 respondents), while only 4% were neutral (1 respondent). There is no visible disagreement. This means that 96% of respondents supported the statement, making this one of the strongest indicators of perceived contractual power imbalance in the survey.

This finding is highly significant because valuation of variations is central to commercial recovery on construction projects. If the party instructing or administering the subcontract is also perceived to control the pricing and assessment of changed work, then the subcontractor's entitlement becomes dependent not only on contractual wording but on the main contractor's commercial judgement. The responses therefore support the argument that variation procedures are a major site of power concentration within JCT arrangements. The result also aligns closely with the wider

theme of this dissertation: that formal contractual mechanisms may, in practice, enable main contractors to dominate matters that directly affect subcontractor cash flow and entitlement.

Main contractors control the valuation of variations

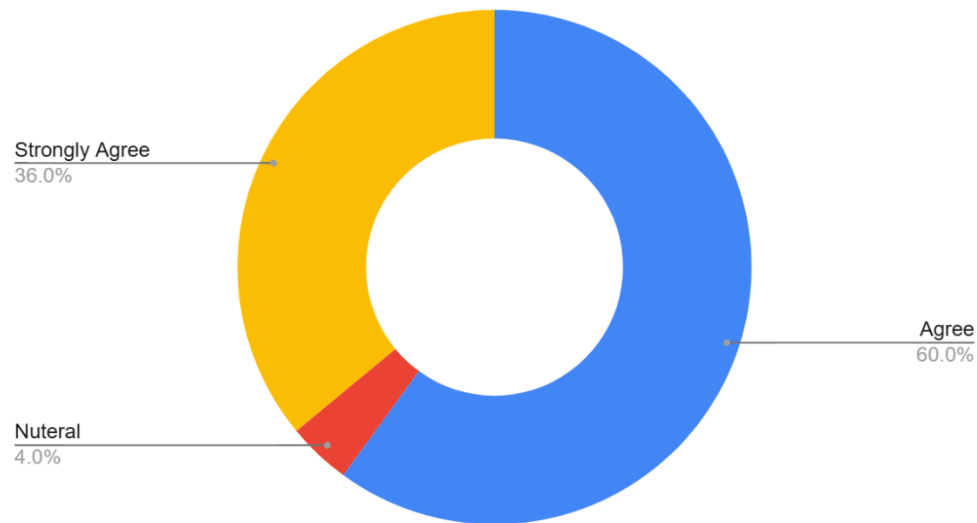


Figure 15 - Valuation of Variations

The responses to this question (figure 16) reinforce the previous findings. 15 respondents agreed, 6 strongly agreed, 3 were neutral and 1 disagreed. This means that 84% of respondents believed that variations are often undervalued at subcontract level. The presence of only one respondent in disagreement suggests that undervaluation is widely recognised, even if not universally experienced in every case.

Analytically, this is an important result because it suggests that control over variation valuation is not merely procedural; it is perceived to affect financial outcomes. In other words, respondents are not simply claiming that main contractors administer the process, but that this administration may result in lower valuations than subcontractors believe are justified. This finding strengthens the dissertation's central argument about commercial risk transfer. It implies that subcontractors may be required to undertake changed work while lacking equal influence over how that work is priced and reimbursed. This can create both immediate cash-flow problems and longer-term margin erosion.

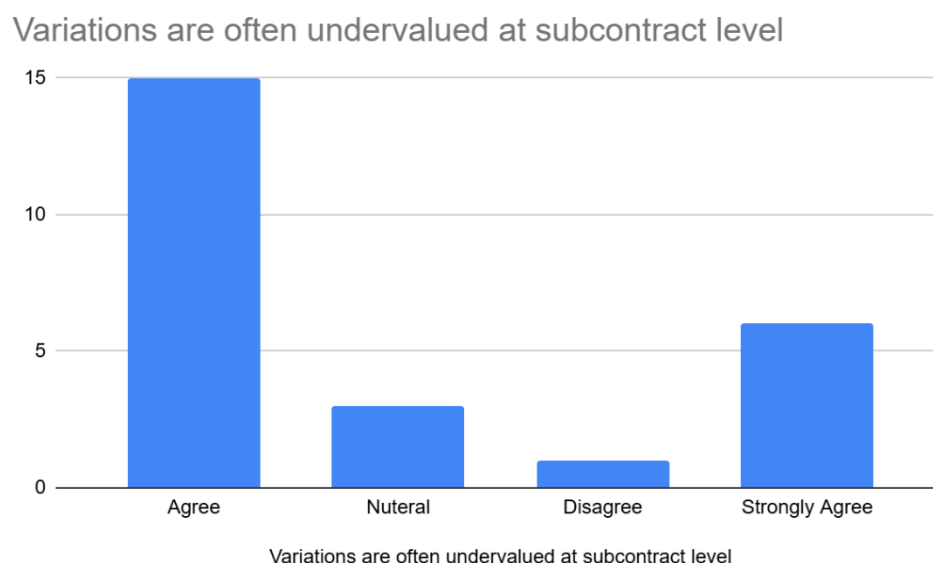


Figure 16 - Undervalued Variations

This chart again shows a very strong pattern (figure 17) 68% agreed (17 respondents) and 24% strongly agreed (6 respondents), while 4% disagreed (1 respondent) and 4% were neutral (1 respondent). Overall, 92% of respondents accepted that subcontractors are often expected to carry out variation work before commercial agreement is reached.

This is a particularly revealing finding because it highlights the practical imbalance between operational demands and commercial certainty. It suggests that subcontractors are commonly required to proceed with work in order to protect programme progress, even where valuation has not yet been finalised. This creates a structurally weak bargaining position: once the work has been carried out, the subcontractor may have limited leverage in negotiating fair value. The result therefore supports the view that subcontractors frequently absorb short-term financial exposure for the benefit of project continuity, while the main contractor retains greater control over later valuation and agreement.

Subcontractors are required to carry out variations before agreement

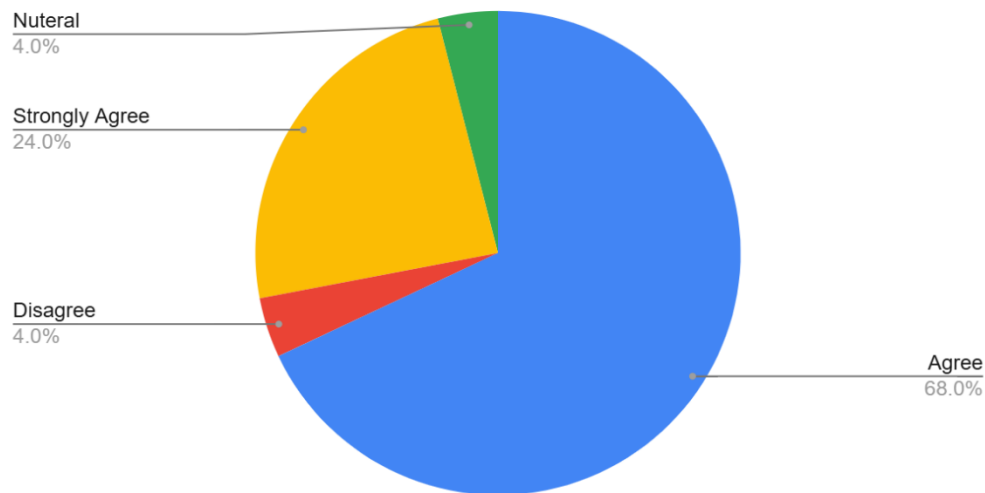


Figure 17 – Variations

The responses indicate very strong agreement that time pressure affects the quality of variation submissions (figure 18). 64% agreed (16 respondents) and 28% strongly agreed (7 respondents), while 4% disagreed (1 respondent) and 4% were neutral (1 respondent). This means that 92% of respondents saw time constraints as having a negative effect on the accuracy of variation submissions.

This result is important because it shifts the discussion from formal entitlement to the practical ability to substantiate claims. Even where subcontractors may be entitled to recover for varied work, the survey suggests that the speed and pressure of project delivery can reduce the quality of quotations, records and supporting evidence. In commercial terms, this can leave subcontractors vulnerable to reduced valuations or rejection of elements of their claim. The result therefore complements the earlier findings on control and undervaluation by showing that procedural pressure itself may contribute to weaker subcontractor recovery. This supports the dissertation's argument that power imbalance is not only contractual but operational.

Time constraints negatively affect the accuracy of variation submissions

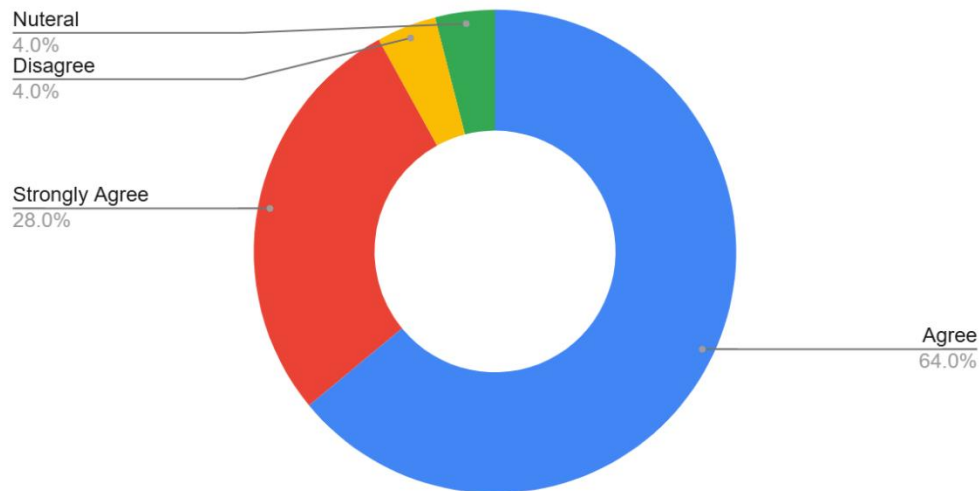


Figure 18 - Time Constraints

4.5 Dispute Resolution and Practical Barriers

The dispute findings continue the same pattern of imbalance (figure 19). The chart shows 15 respondents agreeing, 6 strongly agreeing, 3 neutral and 1 disagreeing, meaning that 84% believed subcontractors are reluctant to raise disputes. This suggests that, although formal dispute mechanisms exist, many respondents do not believe subcontractors feel able to use them freely in practice.

The significance of this finding lies in the distinction between contractual rights and practical accessibility. A dispute mechanism may exist on paper, but if commercial reality discourages parties from using it, its value as a protective safeguard is limited. The result indicates that reluctance to dispute is embedded within industry practice. That reluctance may arise from financial cost, dependence on repeat work, fear of reputational damage or the wider imbalance between contractor and subcontractor bargaining power. For your discussion, this is a key point: dispute rights alone do not guarantee meaningful protection if one party is commercially disincentivised from enforcing them.

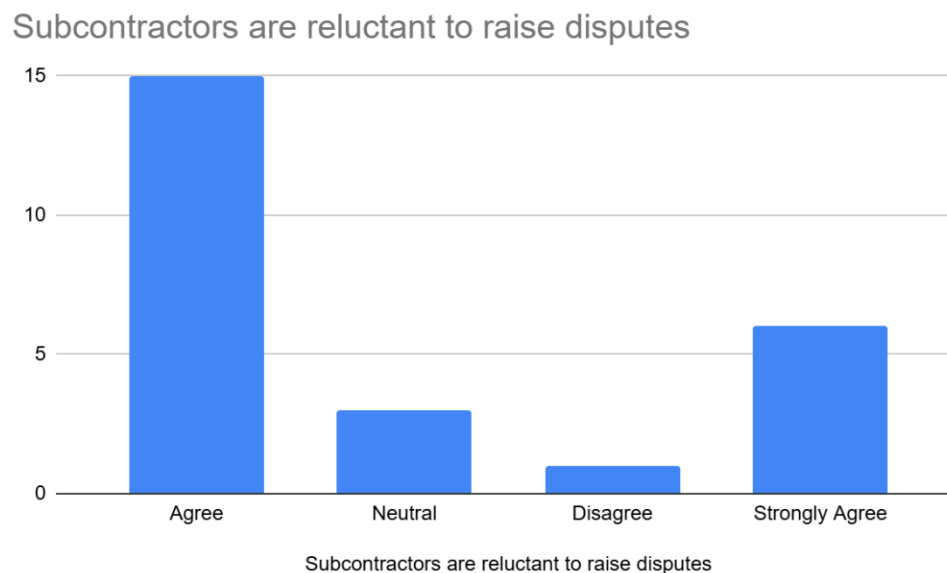


Figure 19 - Disputes

This question produced another very strong result (figure 20). 52% agreed (13 respondents) and 40% strongly agreed (10 respondents), while 8% were neutral (2 respondents). No disagreement is shown. Therefore, 92% of respondents believed that the cost of disputes discourages subcontractors from pursuing claims.

This is analytically significant because it identifies cost as a major barrier to justice within subcontracting relationships. Even where a subcontractor may believe it has a valid entitlement, the economic burden of pursuing that entitlement may outweigh the likely recovery, especially for lower-value disputes. This result strongly supports the argument that dispute mechanisms can be formally available but practically inaccessible. It also shows that power imbalance is reinforced by economic capability: the party with greater commercial resources is more able to withstand or initiate disputes, while the weaker party may be compelled to compromise or absorb losses.

The cost of disputes discourages subcontractors from pursuing claims

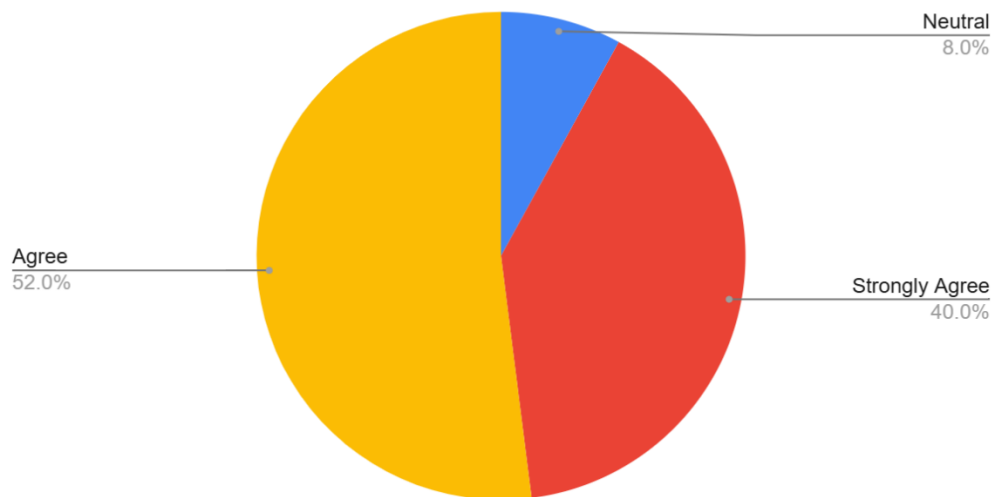


Figure 20 - Cost of Disputes

This chart shows extremely strong support for the statement that disputes can damage future relationships (figure 21). 16 respondents agreed, 8 strongly agreed and 1 was neutral, meaning that 96% of respondents accepted that raising disputes negatively affects future working relationships. No disagreement is shown.

This is one of the most important findings in the entire survey because it explains why dispute reluctance may persist even where legal rights exist. Respondents clearly perceive that pursuing a claim is not simply a contractual decision but also a relational and commercial risk. In a sector where repeat work, preferred contractor status and future tender opportunities are important, the prospect of damaging relationships may act as a powerful deterrent. This means that subcontractors may choose not to enforce legitimate claims, not because those claims lack merit, but because the wider commercial consequences are too severe. This finding strengthens the dissertation by demonstrating that power operates not only through the contract itself but through the commercial culture surrounding it.

Raising disputes negatively affects future working relationships

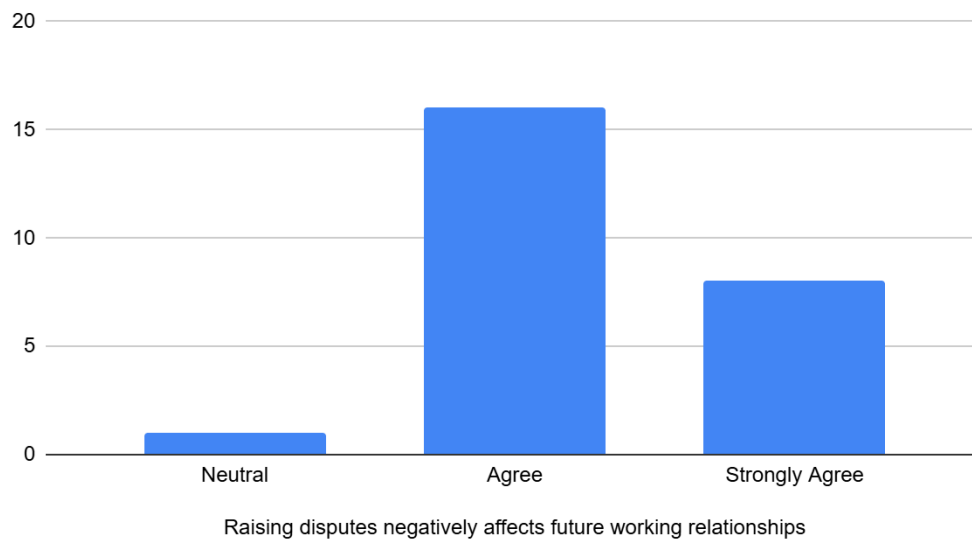


Figure 21 - Negative Work Relationships

4.6 Power Imbalance and Professional Pressures

The survey responses show very strong support for the proposition that a power imbalance exists (figure 22). The chart indicates 14 respondents agreed, 9 strongly agreed and 2 were neutral, meaning that 92% of the sample believed there is a clear power imbalance between main contractors and subcontractors.

This question effectively acts as a synthesis point for the rest of the survey. The earlier responses on payment, variations and disputes all suggest specific forms of disadvantage; this question confirms that respondents interpret those issues not as disconnected problems, but as evidence of a broader structural imbalance. The result is important at dissertation level because it allows you to argue that the survey findings are not isolated operational concerns. Rather, they reflect a wider perception that contractual and commercial arrangements under JCT tend to favour the main contractor.

There is a clear power imbalance between main contractors and subcontractors

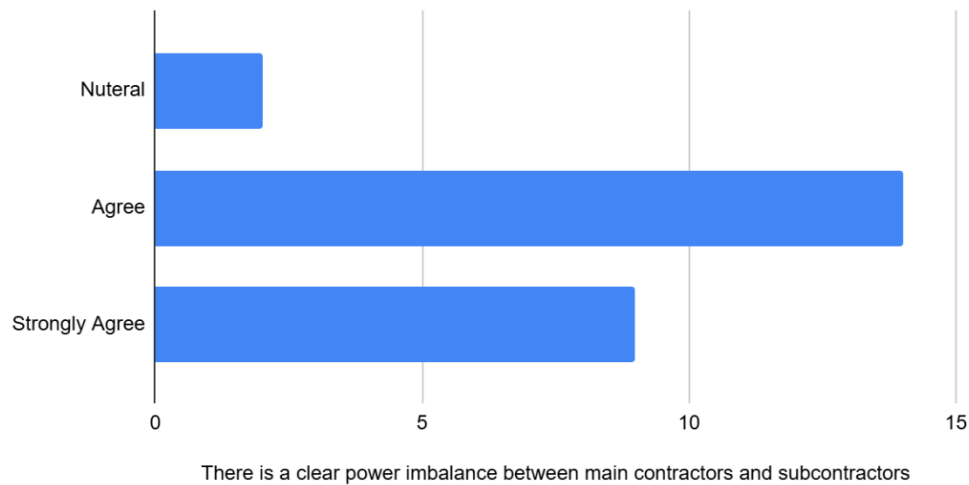


Figure 22 - Power Imbalance

The responses to this question also show a strong pattern (figure 23). The chart indicates 56% agreed (14 respondents), 28% strongly agreed (7 respondents) and 12% were neutral (3 respondents), with the remaining 4% appearing as a single opposing response. The chart label appears slightly unclear, but the overall pattern remains clear: a large majority believed that quantity surveyors experience pressure to act in line with their employer's commercial interests.

This is a particularly valuable result because it connects the survey directly to professional practice and ethics. It suggests that quantity surveyors may not always operate as fully neutral administrators of contract mechanisms. Instead, they may be influenced by the commercial priorities of the organisation employing them. This does not necessarily imply misconduct, but it does indicate that professional judgement can be exercised within an environment shaped by corporate objectives. For a Level 6 analysis, this is an important point because it links structural power imbalance with the human and professional processes through which that imbalance is reproduced in practice. It also provides a strong bridge into the interview section, where this issue can be explored in greater depth.

Quantity surveyors experience pressure to act in their employer's commercial interest

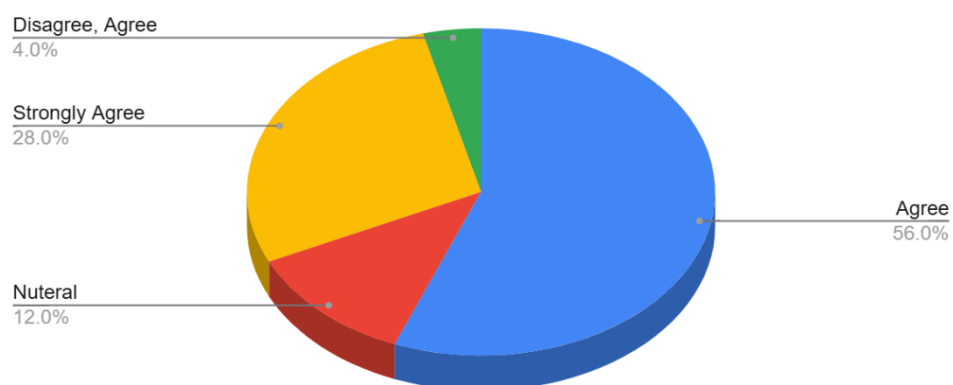


Figure 23 - Commercial Pressure

5.0 Analysis and Critical Discussion

5.1 Introduction

This chapter provides a critical analysis of the primary research findings in relation to the literature review, with the aim of evaluating whether JCT 2016 contractual frameworks create a disproportionate balance of power between main contractors and subcontractors. The discussion is structured in accordance with the research objectives outlined in Section 1.1, focusing on payment mechanisms, variation valuation, dispute resolution, and the implications for quantity surveying practice.

Rather than restating the results, this chapter interprets their significance by examining how contractual mechanisms operate in practice and whether the theoretical imbalances identified within the literature are reflected in industry experience. Particular attention is given to the role of specific JCT clauses in facilitating or reinforcing power asymmetry. In doing so, this chapter directly addresses the central aim of the dissertation by assessing whether contractual neutrality translates into equitable commercial outcomes.

5.2 Payment Mechanisms and Main Contractor Financial Control

The first research objective was to analyse the extent of main contractor control over subcontractor payment mechanisms and its impact on financial risk. The findings provide strong empirical support for the argument that payment systems represent a primary source of power imbalance under JCT contractual frameworks. A total of 88% of respondents agreed that main contractors exercise significant control over subcontractor payments, while 96% confirmed that payment practices create financial pressure. These findings align closely with Cox and Ireland (2002), who identify payment as a central mechanism of supply chain control, and Hughes (2017), who characterises payment certification as a form of “administrative sovereignty”.

This perceived control can be directly linked to specific JCT provisions. Under Clause 4.10 of the JCT SBCSub/C 2016, subcontractors are required to submit payment applications within a

timeframe dictated by the main contractor's payment cycle. This creates a structural dependency, as the main contractor effectively determines both the timing and recognition of value. Furthermore, Clause 4.12 permits the issuing of pay less notices, enabling the main contractor to reduce certified sums without requiring detailed substantiation at the point of issue (JCT, 2016a).

While these clauses are compliant with the Housing Grants, Construction and Regeneration Act 1996, the findings suggest that their practical application enables financial control rather than promoting payment fairness. This is reinforced by the survey result that 76% of respondents experience delayed payment despite contractual timelines. This supports Build UK (2023), which argues that contractual entitlement does not necessarily translate into consistent commercial behaviour. The mixed findings relating to pay less notices are particularly significant. While respondents generally accepted their legitimacy, this contrasts with widespread dissatisfaction regarding overall payment practices. This supports Cooke and Williams (2020), who argue that contractual mechanisms may be technically compliant while still producing inequitable outcomes. Therefore, the issue appears not to be the existence of such clauses, but the discretionary power they afford the administering party.

Critically, this demonstrates that power imbalance is embedded not only in contractual wording but in control over contract administration. The ability to determine valuation timing, issue payment notices, and control cash flow places subcontractors in a structurally dependent position. As such, payment provisions under JCT contracts function as instruments of financial leverage, supporting the dissertation aim that contractual frameworks may enable disproportionate control in practice.

5.3 Variations, Valuation and Commercial Risk Transfer

The second objective was to evaluate how variations are instructed, valued and agreed under JCT subcontract arrangements. The findings in this area provide some of the strongest evidence of structural imbalance. A total of 96% of respondents agreed that main contractors control variation valuation, while 84% believed variations are frequently undervalued. These findings strongly support Murdoch and Hughes (2020), who describe variations as “contested terrains” where

financial outcomes are determined by those with valuation authority. This imbalance can be directly linked to Clause 3.6 of the JCT SBCSub/C 2016, which requires subcontractors to comply with variation instructions issued by the main contractor, often without prior agreement on valuation. This creates an inherent risk exposure, as subcontractors are contractually obligated to proceed with additional work before commercial terms are finalised. Furthermore, Clause 5.3.3 permits variations to be valued on a “fair and reasonable basis” where contract rates are not applicable (JCT, 2016a). While this clause appears flexible, it introduces subjectivity into the valuation process, enabling the main contractor to impose pricing methodologies that may not reflect subcontractor cost structures. This supports findings by Hughes et al. (2014), who identified systematic undervaluation of subcontractor claims.

The survey result that 92% of respondents are required to undertake variation work prior to agreement highlights the practical implications of this structure. As Winch (2010) argues, subcontractors often prioritise programme continuity over commercial certainty, resulting in reduced bargaining power once work is completed. Additionally, 92% of respondents agreed that time pressures negatively affect the quality of variation submissions. This reflects the impact of Clause 5.3.1, which imposes strict timeframes for quotation submission. Where subcontractors are unable to respond adequately, Clause 5.3.2 allows the main contractor to undertake unilateral valuation, further reinforcing imbalance. This demonstrates that variation-related power imbalance is not solely contractual but also procedural. The combination of immediate compliance requirements, subjective valuation criteria, and operational time pressures creates a system in which subcontractors are structurally disadvantaged in securing fair compensation.

5.4 Dispute Resolution: Formal Rights Versus Practical Accessibility

The third objective was to assess the effectiveness and accessibility of dispute resolution mechanisms available under JCT contracts. While Clause 9.2 provides access to adjudication, the findings indicate that these rights are significantly constrained in practice. A total of 84% of respondents agreed that subcontractors are reluctant to raise disputes, while 92% identified cost as a major barrier. This supports Kennedy (2019), who argues that adjudication creates “ostensible equality” while practical inequalities persist. Similarly, Gould (2020) highlights that dispute

mechanisms may be legally available but economically inaccessible. Clause 9.2 of the JCT SBCSub/C 2016 incorporates statutory adjudication procedures, theoretically providing rapid and cost-effective dispute resolution. However, the findings suggest that this accessibility is undermined by commercial realities. The fact that 96% of respondents believe disputes damage future relationships highlights the presence of relational risk, which is not addressed within the contractual framework.

This supports Hughes et al. (2022), who describe the “relationship hostage” phenomenon, where subcontractors avoid enforcing contractual rights due to dependence on future work opportunities. Therefore, while adjudication exists as a legal remedy, its practical use is constrained by economic and relational considerations. Additionally, the literature highlights that arbitration and litigation under Clauses 9.3 and 9.4 are largely inaccessible due to cost thresholds (Hughes, 2017). This further reinforces the idea that dispute mechanisms, while formally available, do not provide equal protection in practice. Critically, this demonstrates that contractual fairness cannot be assessed solely by the presence of dispute procedures. If one party is discouraged from using those procedures due to cost or commercial risk, then the system cannot be considered functionally balanced. This directly supports the dissertation aim by showing that contractual equality does not equate to practical accessibility.

5.5 Professional Ethics and the Role of Quantity Surveyors

The final objective was to examine the implications of these power dynamics for quantity surveying practice and ethical decision-making. The findings suggest that professional roles are significantly influenced by organisational pressures. A majority of respondents agreed that quantity surveyors experience pressure to act in line with their employer’s commercial interests. This supports Bresnen and Marshall (2000), who describe quantity surveyors as “agents of power” within contractual systems. This creates tension with RICS professional guidance, which requires members to act with integrity and impartiality (RICS, 2021). However, as identified in the literature, quantity surveyors employed by main contractors are often responsible for administering clauses such as 4.10 (payment certification) and 5.3.3 (variation valuation), placing them in a position where professional judgement is exercised within a commercially driven environment.

This suggests that ethical challenges are systemic rather than individual. As Cooke and Williams (2020) argue, commercial incentives may influence how contractual provisions are interpreted and applied, potentially reinforcing power imbalance. From a critical perspective, this highlights that contractual power is not only embedded in clauses but also in the professional processes through which those clauses are administered. Quantity surveyors therefore play a central role in either maintaining or mitigating imbalance within construction contracts.

5.6 Overall Evaluation of Aim

The aim of this dissertation was to determine whether JCT 2016 contractual frameworks create a disproportionate balance of power between main contractors and subcontractors. The findings demonstrate that while JCT contracts are designed to operate as neutral legal frameworks, their structure and application enable main contractors to exert significant control over key commercial processes.

Across all three domains:

Payment mechanisms (Clauses 4.10–4.12) concentrate financial control

Variation procedures (Clauses 3.6 and 5.3) enable valuation dominance

Dispute mechanisms (Clause 9.2) are limited by practical barriers

This indicates that power imbalance arises not solely from contractual wording, but from the interaction between contractual authority, commercial dependency, and operational constraints. Therefore, it can be concluded that JCT contracts do not inherently create inequality, but they facilitate conditions under which imbalance is likely to occur in practice. This directly supports the central argument of the dissertation.

6.0 Conclusion

The aim of this dissertation was to critically examine whether JCT 2016 contractual frameworks create a disproportionate balance of power between main contractors and subcontractors, with particular focus on payments, variations and dispute resolution. The research has shown that while JCT contracts provide a formal contractual structure intended to regulate commercial relationships fairly, their practical application can reinforce main contractor control within the construction supply chain. This conclusion is supported by both the literature review and the primary questionnaire findings.

The first objective was to analyse the extent of main contractor control over subcontractor payment mechanisms and the impact on cash flow and financial risk. The findings demonstrated that payment is one of the clearest areas of imbalance. The survey showed that 88% of respondents agreed that main contractors have significant control over subcontractor payments, while 96% agreed that payment practices create financial pressure. This supports the literature, which identified payment control as a key mechanism through which main contractors influence subcontractor cash flow and commercial stability. Although JCT payment provisions and statutory protections exist, the research indicates that contractual entitlement does not always translate into prompt or fair payment in practice.

The second objective was to evaluate how variations are instructed, valued and agreed under JCT subcontract arrangements. The findings showed that variation valuation is another major source of perceived imbalance. A total of 96% of respondents agreed that main contractors control the valuation of variations, while 84% believed that variations are often undervalued at subcontract level. This suggests that subcontractors may be required to undertake additional work before agreement is reached, leaving them financially exposed and dependent on the main contractor's later assessment. The findings therefore support the view that JCT variation mechanisms, particularly where valuation is controlled by the main contractor, can contribute to commercial risk transfer.

The third objective was to assess the effectiveness and practical accessibility of dispute resolution procedures available to subcontractors under JCT contracts. The research found that although dispute mechanisms such as adjudication are formally available, they are not always practically accessible. The survey showed that 84% of respondents believed subcontractors are reluctant to raise disputes, 92% believed the cost of disputes discourages claims, and 96% believed disputes negatively affect future working relationships. This demonstrates a clear gap between legal rights and commercial reality. Subcontractors may possess contractual remedies, but fear of cost, reputational damage and loss of future work can prevent them from enforcing those rights.

The final objective was to examine the wider implications of these power dynamics for quantity surveying practice, ethical decision-making and fair commercial management. The findings suggest that quantity surveyors occupy a central role in the administration of these power relationships. The survey showed that a large majority of respondents believed quantity surveyors experience pressure to act in line with their employer's commercial interests. This creates an ethical tension between professional standards, such as fairness and objectivity, and the commercial objectives of the organisations employing the surveyor. Therefore, the issue is not only contractual, but also professional and cultural.

Overall, this dissertation concludes that JCT 2016 contracts do not necessarily create unfairness through their wording alone. However, they can enable imbalance through the way they are administered in practice. Main contractors retain significant influence over payment timing, valuation of variations and the practical use of dispute procedures. As a result, JCT contracts may appear balanced in theory but operate in a way that often favours main contractors in practice.

7.0 Recommendations

Based on the findings, Five recommendations can be made.

- Payment processes should be made more transparent. Main contractors should provide clearer explanations for payment deductions and pay less notices, including detailed reasoning and supporting evidence. This would help subcontractors understand deductions and reduce unnecessary disputes.
- Variation procedures should require earlier agreement of value wherever possible. Where subcontractors are instructed to carry out varied work before agreement, there should be clearer interim valuation mechanisms to prevent subcontractors from carrying the financial burden of unresolved changes.
- Subcontractors should be supported in maintaining stronger records. Better record keeping, including written instructions, photographs, Labour records, material records and contemporaneous cost evidence, would improve the ability of subcontractors to substantiate claims and defend entitlement.
- Dispute resolution should be made more commercially accessible. Lower-cost adjudication pathways or simplified procedures for lower-value subcontractor disputes could improve access to justice and reduce the deterrent effect of cost.
- Quantity surveyors should receive stronger ethical and commercial training focused specifically on supply chain fairness. Professional bodies and employers should place greater emphasis on balanced contract administration, rather than purely commercial recovery or margin protection.

References

BIS. (2016). Construction supply chain payment report. Department for Business, Innovation and Skills.

Bresnen, M., & Marshall, N. (2000). Partnering in construction: A critical review of issues, problems and dilemmas. *Construction Management and Economics*, 18(2), 229-237.
<https://doi.org/10.1080/014461900370702>

Build UK. (2023) Payment performance and fair payment guidance. London: Build UK.

Cabinet Office. (2022). Construction playbook: Procurement best practice guidance. UK Government Publications.

Chappell, D. (2016). The JCT standard building contract 2016. Wiley-Blackwell.

CIC. (2022). UK construction industry payment survey. Construction Industry Council.

Construction Leadership Council. (2022) Construction supply chain payment charter and fair payment recommendations. London: CLC.

Construction News. (2022). Payment performance investigation. EMAP Publishing.

Cooke, B., & Williams, P. (2020). Construction planning, programming and control (4th ed.). Wiley-Blackwell.

Cox, A., & Ireland, P. (2002). Managing construction supply chains: The commonsense approach. *Engineering, Construction and Architectural Management*, 9(5/6), 345-352.
<https://doi.org/10.1108/eb021232>

Eggleston, B. (2020). The JCT design and build contract 2016 (6th ed.). Wiley-Blackwell.

Gould, N. (2020). Construction dispute resolution handbook (3rd ed.). Informa Law.

Hughes, D. (2013). Construction contracts: Law and management (5th ed.). Routledge.

Hughes, D. (2017). The impact of the Construction Act 1996 on payment practices in the UK construction industry. *International Journal of Law in the Built Environment*, 9(2), 142-156. <https://doi.org/10.1108/IJLBE-03-2017-0015>

Hughes, D., Champion, R., & Murdoch, J. (2022). *Construction law* (6th ed.). Routledge.

Hughes, W., Hillebrandt, P., & Murdoch, J. (2014). *Financial protection in the UK building industry: Bonds, retention and guarantees*. Routledge.

JCT. (2016a). *JCT standard building sub-contract agreement 2016 (SBCSub/C)*. Joint Contracts Tribunal.

Joint Contracts Tribunal (JCT). (2016). *JCT 2016 Standard Form of Contract* [PDF]. Retrieved 17 January 2026, from <https://www.pdfcoffee.com/jct-2016-standard-form-of-contract-pdf>

Kennedy, P. (2019). *A guide to construction adjudication* (2nd ed.). Informa Law.

Mosey, D. (2016). *NEC4 and JCT 2016: A comparative analysis*. RICS.

Murdoch, J., & Hughes, W. (2020). *Construction contracts: Law and management* (6th ed.). Routledge.

Murray, M., & Langford, D. (2003). *Construction reports 1944-98*. Wiley-Blackwell.

RICS. (2020). *Rules of conduct for members and firms*. Royal Institution of Chartered Surveyors.

RICS. (2021). *Contracts in practice: RICS professional guidance*. Royal Institution of Chartered Surveyors.

Royal Institution of Chartered Surveyors (RICS). (2021) *Rules of conduct and professional ethics guidance*. London: RICS.

UK Government. (1996). *Housing Grants, Construction and Regeneration Act 1996*. <https://www.legislation.gov.uk/ukpga/1996/53/contents>

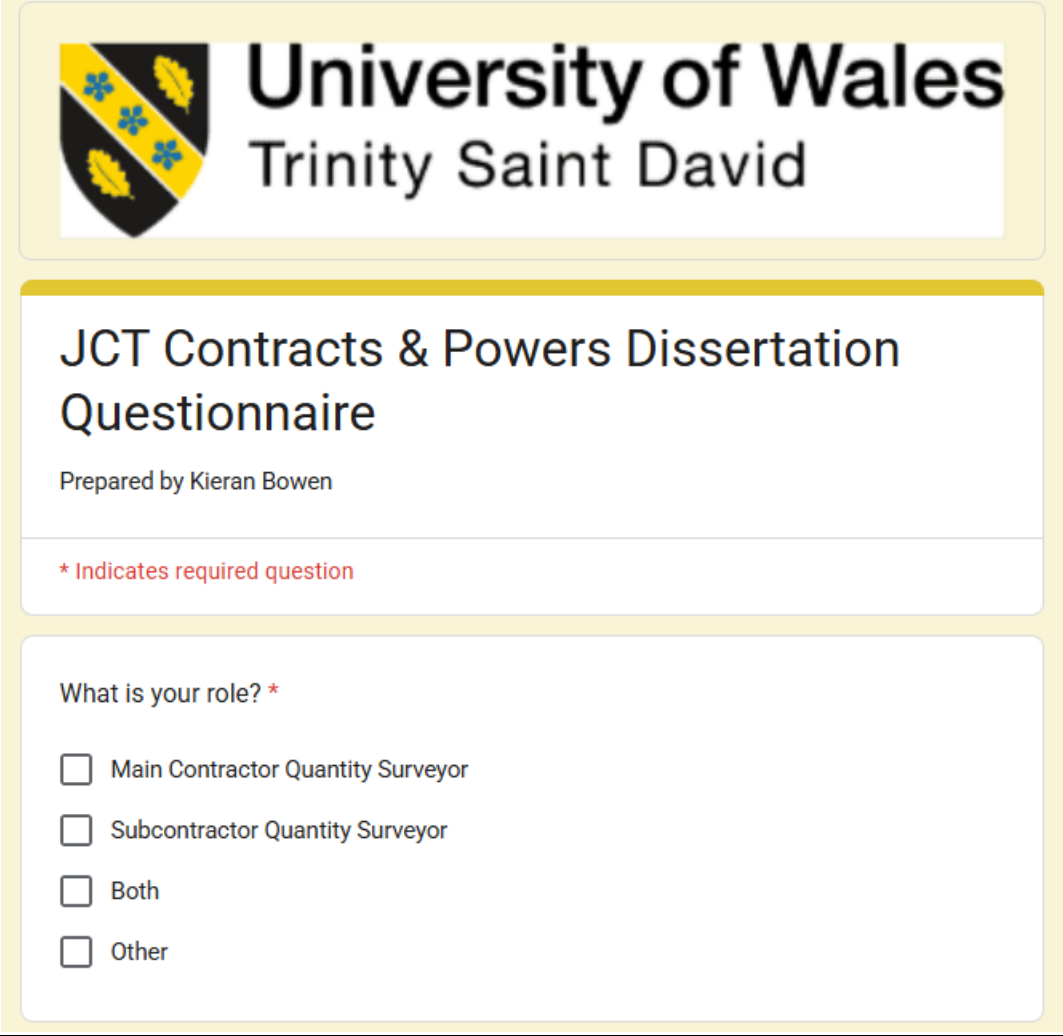
Uher, T. E., & Brand, M. C. (2017). Programming and scheduling of construction projects. Routledge.

Uher, T. E., & Davenport, P. (2009). Fundamentals of building contract management (3rd ed.). University of New South Wales Press.

Winch, G. M. (2010). Managing construction projects (2nd ed.). Wiley-Blackwell.

APPENDICES

Appendix 1: Survey (Screenshots)



 **University of Wales**
Trinity Saint David

**JCT Contracts & Powers Dissertation
Questionnaire**

Prepared by Kieran Bowen

* Indicates required question

What is your role? *

☐ Main Contractor Quantity Surveyor

☐ Subcontractor Quantity Surveyor

☐ Both

☐ Other

Years of experience *

- ☐ 0-3
- ☐ 3-5
- ☐ 5-10
- ☐ 10+

Main contractors have significant control over subcontractor payments *

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

Subcontractors are often paid later than agreed contract terms *

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Nuteral
- ☐ Agree
- ☐ Strongly Agee

Pay less notices are used fairly in practice *

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Nuteral
- ☐ Agree
- ☐ Strongly Agree

Payment practices create financial pressure on subcontractors *

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Nuteral
- ☐ Agree
- ☐ Strongly Agree

Main contractors control the valuation of variations *

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Nuteral
- ☐ Agree
- ☐ Strongly Agree

Variations are often undervalued at subcontract level *

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Nuteral
- ☐ Agree
- ☐ Strongly Agree

Subcontractors are required to carry out variations before agreement *

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Nuteral
- ☐ Agree
- ☐ Strongly Agree

Time constraints negatively affect the accuracy of variation submissions *

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Nuteral
- ☐ Agree
- ☐ Strongly Agree

Subcontractors are reluctant to raise disputes *

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

The cost of disputes discourages subcontractors from pursuing claims *

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

Raising disputes negatively affects future working relationships *

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

There is a clear power imbalance between main contractors and subcontractors *

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Nuteral
- ☐ Agree
- ☐ Strongly Agree

Quantity surveyors experience pressure to act in their employer's commercial interest *

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Nuteral
- ☐ Agree
- ☐ Strongly Agree