FACTORS INFLUENCING SUBCONTRACTOR AND MAIN CONTRACTOR RELATIONSHIPS IN MELBOURNE CONSTRUCTION INDUSTRY

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ABSTRACT

The Construction Industry in Australia is plagued by mistrust and deception and the biggest feeder to this environment is the volatile relationship between the projects’ main contractor and its subcontractors. To date the majority of the research inquiry has largely centred on the main contractor’s perspective with little consideration given to the views and opinions of subcontractors. This is a working paper and is part of a wider research project which aims to provide academics and practitioners with factors influencing distrust within the contractual relationship. Hence this research investigates the importance of subcontractors to industry and the influencing factors that promote the lack of collaboration and distrust. The initial findings are presented based on literature review and a structured questionnaire distributed to 30 randomly selected Australian contractors working in the commercial construction industry operating in Melbourne, Victoria. The findings suggest that the contractual obligations of a standard form contract such as overtime, retention payments, unclear scope of works, unsigned variation dockets, variation works, hidden clauses in contracts, withholding drawing revisions and extension of time were to blame, as well as deceptive measures which have now become standard practice and occur on-site daily.

Keywords: Subcontractor, Main contractor, Contracts

INTRODUCTION

The relationship between main contractors and subcontractors are commonly formed on a project by project basis (Lee et al, 2009) with as much as 80-90% of the work on projects performed by subcontractors (Hinze and Tracey, 1994, Matthews et al. 1997). Traditional construction procurement has continued to be the dominant procurement strategy since the industrial revolution in the nineteenth century (Rowlinson and McDermott, 1999). However, recent years have proved that the traditional subcontractor procurement strategy incites strains in the relationship between subcontractors and the main contractor, generating conflicts, disputes, lack of collaboration and failure to complete the project on schedule and according to budget.

“Price only/lowest bids win” practices are the customary tender management practice in the construction industry. Kumaraswamy and Matthews (2000, p 48) observed that the “lowest tender may have originated from inaccurate estimating, inadequate risk provisions, deliberate decisions to use substandard resources, and/or even “smart” pricing strategies aimed at generating claims for extra payments through contractual loopholes”. This practice drives a lack of control in effective expenditure, increasing project costs and affects overall profit margins. Flyvbjerg, et al. (2002) states that historically, cost and schedule overruns have plagued construction projects. Further,
Doloi (2011) highlights that cost overrun is a prolonged issue for most projects and that cost estimates have been lower than the final project costs. Gajpal and Elazouni (2015) noted that project risks, management and technique, scope of contract, and environmental and circumstantial influences are key-influencing factors in the analysis of cost overrun, confirming that the final costs are associated with the control of these factors. Construction companies are charged with communicating clients’ needs during the early stage of the project and the subcontractors should be included in this process. Matthews (1996) suggested that the adoption of a “partnering philosophy” between the main contractor and the subcontractors would be key to achieving improvements in communication. A clear understanding of the scope of contract regarding drawings and specification prior to contract signing will obviously decrease pricing disputes between subcontractors and main contractors in the long run.

The volatility between these two parties is only made worse by the structure of a traditional procurement contract, as it typically excludes subcontractors. Hinze and Tracey (1994) stated that 46% of subcontractors who were bound by the terms of the "main" contract were generally not given the opportunity of examining it. Morledge (2008), argues that as specialist subcontractors play a significant role in the construction process their involvement with collaborative arrangements will offset project delivery disconnections through mutual coordination of operations and integration between main contractors and subcontractors. Under the traditional approach, the strict and litigious contract terms have been applied with little consideration in sustaining relationships for future projects. Formal contract documents which have been carefully drafted are used as a safeguard. However, Akintan and Morledge (2013) argues that in traditional procurement practices unforgiving contract clauses/terms are more commonly used in subcontractor’s agreements. Dainty, et al. (2001) suggested that clauses that terminate and refuse to offer damages are being introduced more and more into standard subcontracts, therefore ending long-standing relationships as soon as there is a failing by the subcontractor. Such practices enforce an adversarial contractual relationship rather than promote a relational environment, endorsing suspicion and manipulation and straining the overall affiliations between the supply chain and the main contractor.

**Research Aims**

The aim of this paper is to identify the influencing variables that impact trust among the supply chain participants working on construction projects, how the overall project is affected and the psychological influences and perception of these relationships. The objective is to show how vital it is to build and maintain long-term thoughtful relationships between the main contractor and subcontractor in commercial construction and to highlight the subcontractor’s perspective.

**Research Methodology**

Several research methodologies (qualitative, quantitative, triangulation) were duly considered, and in absent of any research in this area, it was deemed important to adopt a quantitative approach for collecting primary data for this initial stage of study presented this paper. According to McQueen and Knussen, (2002) questionnaires are one of the most effective ways to involve a large number of respondents and in this way, achieve greater confidence in results. The questionnaire features clear and
defined questions, attempting to gather detailed and unequivocal answers. It is a mixture of both an open and closed format. Open format questions allow for qualitative questions, and give the audience an occasion to express their opinions and experiences in a manner that is free-form as there is not a set of pre-determined responses. The respondents were required to rate each question on a four-point Likert scale (1-4), where 1 represents Strongly Disagree and 4 represents Strongly Agree, as the case might be. Closed format questions although may restrict the audience to choose a pre-determined answer, its main advantage is the ease in creating performing analysis. As the answers are set, these questions are best for calculating statistical data and percentages.

MAIN DISCUSSIONS

Background of the Respondents

A three-page structured questionnaire was provided to 50 commercial subcontractors with differing roles and trades currently working in industry. The participants were asked to complete the questionnaire and then to submit in person or scanned and sent via email. From the 50 questionnaires distributed, only 30 respondents returned the questionnaire completed and representing a 60% response, this is within the range of many other researchers like Akintan and Morledge (2013) and Chan, et al. (2003).

Of the 30 respondents, male respondents ultimately outnumbered female respondents by 100% as the subcontracting world is still heavily dominated by the male gender. More than 50% of the respondents were aged between 31-40, 20% were aged between 20-30 and only 7% were between the ages of 41-50. The number of years the participants were employed in the construction field ranged from under 5 years to over 21 years; with 54% of respondents having over 11 years’ experience. As expected the majority of respondents do not have high-level academic degrees, 80% of all respondents self-reported having only a secondary school certificate. The respondents that have either a first degree or further studies such as diplomas hold a more academic role such as an estimator or managing director.

![Figure 1: Summary of Respondents Trade Specialisations](ombies.org/cobraconference)
An analysis of the 30 completed questionnaires, 30% responses came from Managing Directors, Site Supervisors and Estimator of subcontracting firms. The remaining 70% of respondents came from specialist trades; the Finishes and Civil trade, and an equal 7% for Electrical, Plumbing, Demolition and Carpentry. Whilst more, than 50% of these trades came from organisations that contained 50 and under employees, 27% contained 51-100 employees and 20% contained 101-300 employees, which suggests a somewhat fair pooling from small to large subcontracting companies.

**Contractual Obligations**

Figure 2 demonstrates the subcontractors’ perspective on the 4 key contractual obligations not honoured by the main contractors. Over 70% either agree or strongly agree that retention payments, overtime, extensions of time, and variation work are not commonly or consistently fulfilled as the project progresses.

![Figure 2: The main contractual obligations not honoured by the main contractor.](image)

**Retention Payments Obligation**

Many construction contracts, especially those that involve competitive bidding, provide a facility for retainage of progress payments to allow for the correction of faulty or missing work. These payments are intended to be linked to the subcontractor’s performance with the subcontractor providing a guarantee for works under contract in the form of their own earnings. 74% of respondents either disagree or strongly disagree that retention payments are subject to unfair practices by the main contractor who holds the position of power over the accumulated retainage, deciding when to release these funds at their own discretion. These earnings are meant to be returned once all works are performed and the subcontractor has fulfilled their contractual obligations. This often does not occur, producing a cash flow problem for subcontractors who may in some instances borrow funds at a substantial interest rate, resulting in higher construction costs (Arditi and Chotibhongs, 2005).

Moreover, the majority of contracts often prevent the subcontractor from gaining interest on their retention money, however, at the main contractor’s discretion may place the retention money in their own account thus gaining interest for their own benefit while the subcontractor is attempting to achieve practical completion. This practice gives main contractors leverage to maximise their own profit margins at the
disadvantage of the subcontractor (Hinze and Tracey, 1994). In addition, through delaying the release of retention sums at the end of the DLP (defects liability period) this becomes another avenue for main contractors to hold back a certain percentage in the form of a discount from the subcontractor’s retainer. It can be justified that retention payouts only occur when subcontractors chase their money, some main contractors will withhold payment in the hope that the subcontractor loses track of the amount of retention owed or forget altogether. Many subcontractors lack the training and time that is required to trace the money for an ongoing project and as a subcontractor would have a multitude of projects at one-time, main contractors take advantage of this poor management. It can be said that sometimes it is solely due the poor organisation skills of a main contractor that can lead to the withholding of retention payments, however, as this practice so often occurs many subcontractors believe it to be purposeful. For a subcontractor retained payments by the main contractor can represent a significant portion of profit, much like a late invoice, the main contractor absorbs this profit to assist in bankrolling the company they represent. Further, the constant demands of the main contractor regarding discounted works as well was the wasted time of the subcontractor’s behalf chasing up payments to ensure they come through on time or at all. This time and overhead can be better spent on cultivating their own business, not using manpower to chase up what is legally owed to them and a time that was prearranged prior to works and in respect to the performance already given. Finally, the motivation should not be solely on accomplishing payments that are prompt but also to ensure that subcontractors do not spend unnecessary hours, days, weeks, collecting what is rightfully owed to them.

An added concern is the recovery of retention money in the case of insolvency of the main contractor. Even upon insolvency, subcontractors are not entitled to their money as administrators or liquidators are included in the pool of monies which are distributed to creditors. It is near impossible for a subcontractor to recover this retention as they are considered an ‘unsecured’ creditor. The New South Wales (NSW) Government has found a potential solution for recovering capital from main contractor insolvency, a commissioned report derived from the Collins Inquiry (2012) found that a significant portion of subcontractors do not receive the full amount of retention money upon practical completion of a construction project. Furthermore, it was also found that there were instances where the main contractor(s) used retention monies as working capital and the monies were used to pay off debts. The NSW Government have also attempted to provide shield subcontractors of these concerns of retention money by establishing retention trust accounts which regulate the access of the main contractor to these particular funds.

Overtime Obligation

80% of respondents either agree or strongly agree that overtime, labour and pay were not treated fairly, one respondent even adding to the questionnaire that the hours labourers are expected to work was not usually honoured even though it is technically under contract. Subcontractors are made to adhere to strict and unforgiving project schedules tailored to an overall project deadline and in order to meet these specific targets more hours in or even night works are needed. As these were unforeseen circumstances at the time of awarding the contract, out of hours and night works were not initially allowed in the primary costings. The pressures of delivering a project at the bequest of the main contractor can cause tensions within a subcontracting firm, in
terms of overtime and payments. This can cause escalating costs within the company at the decline of profit which prompts some employers to wrongly force labourers to classify themselves as independent contractors whilst the company still controls the time, place and manner of the work. According to FairWork Act (2009), this is considered to be ‘sham contracting’ which is illegal. This involves pressuring labourers with dismissal or threats to become independent contractors against their will dismiss a labourer and hire them as an independent contractor for the same scope of work. These arrangement types are sought out to avoid responsibility for paying legal entitlements.

Further, as construction projects attempt to condense their scheduling programs in order to deliver practical completion as quickly as possible; the pressure to increase out of hours works and withholding of its payments can cause ramifications on productivity as well as health and safety. This typical method of increasing working hours in construction may not be as effective given that performance may diminish during night or overtime works which negate any positive effects of additional working hours. This is mainly attributed to fatigue due to the prolonged expected performance which can exhaust muscular strength and cause mental stress due to increased strain. Due to these forced stresses absenteeism, oversights, further issues and accidents have a higher risk of occurring that may affect the overall productivity in delivering a construction project.

**Extension of Time Obligation**

80% of respondents either agree or strongly agree that extensions of times on behalf of the subcontractor are highly disregarded and it is an industry known fact that an extension of time will not be granted to a subcontractor. In order to win the job, the main contractor agrees to a date of practical completion which will be specified in tender documentation prior to the contract being awarded. More often than not, the main contractor will agree to a date of practical completion to win the project without considering whether it is feasible and how it will affect the countless specialised trades required to complete the project. Typically, the failure to monitor and update the program schedule of a construction project continuously interferes with a subcontractor’s performance and any changes that may occur rarely includes the subcontractors input. As stakeholders determine the direction and timing of a project, main contractors are tasked with proving that either the delay was due to unforeseen circumstances out of their control or they were not liable for such a delay of a critical activity. Unfortunately, this pressure envelops onto subcontractors and in order to meet the demands of a condensed program schedule will need to use their profit margins to employ further labour and/or grant their employees after hour rates. The flow-down clause binds the subcontractor to the main contractor in that all claims must comply with any provisions in the prime contract between the main contractor and client. Subcontractors must have enough foresight to ensure that their extension of time allows sufficient time for the main contractor to make the same claim under the prime contract. Liquidated and Ascertained damages are employed if the project is not completed within the stipulated period, if a subcontractor is responsible for the delay due to uncontrollable reasons, they will be charged with paying an allotted amount back to the main contractor to offset any damages they may incur from the client. This charge may be inflicted on the days, weeks or months past the practical completion date. Subcontractors that provide the required documentation, program
scheduling input and deliver prompt extensions of time should have a case to extend the project’s practical completion and forcing the main contractor to take responsibility for scheduling and coordination.

**Variation Work Obligation**

Generally, the main contractors are cost-sensitive and the cost of coordinating the variations inevitably becomes an important factor in determining relationship between the main contractor and the subcontractor. 74% of respondents either strongly agree or agree that variation work was a source of escalated disagreements and bred distrust. As project environments are ever-changing due to the client’s indecision, market demands, soil conditions, existing building conditions, and errors, what is contracted at the conception of the project may differ considerably as contractors reach the end. Coordinating variations with a subcontractor is not an easy task, especially if the subcontracted work entails significant variations. Variations can mean changes in design or specifications, frequent cost overruns, and even conflicts with other work and hence the variations may have a negative impact on the main contractor’s profit margin. The pressure felt by the main contractor from the client or their own profit margin requirements bleeds over to the subcontractor (Lee et al, 2009).

A major conflict that arises is unmentioned but assumed work from the bills of quantities, drawings or specifications. Items that are not specifically mentioned but are required in order to complete the works fall under what is deemed as 'reasonable assumption'. Under common law this does not permit the main contractor or client to be bound to pay claims for extra works. Unless, specifically excluded works are not considered a variation. Conversely, the main contractor cannot change the direct nature of the scope of works or omit works from one subcontractor and give to another subcontractor once the contract has been awarded. In addition, the main contractor is not obliged to provide assistance in ordering variations to assist the subcontractor if the works are proving too expensive or difficult. Most subcontractor variations are rejected due to the following reasons:

- Their company lacks the knowledge in establishing an estimating database and rates.
- Site instructions are being executed without variation approval.
- Claims are not contested as subcontractors lack the understanding of the federal and state laws that mandate response time to claims issuant.
- Inability to follow document variations or defects lists via web-based programs like Aconex.
- No standardised rate pricing which will have a greater chance of the variation being rejected.
- No repour with the standing main contractor or builder, many variation claims either go uncontested or denied.

A consultant stated, “the subcontractor really needs to fight for the variation, as there is a big chance they will not get paid for the variation work…however, when you have a relationship with the builder is it much easier for a variation price to be accepted as it is based on trust”. It is self-evident that subcontractors are aware of their own peril regarding variations and demonstrates that subcontractor’s experiences lead them to assume that every variation has and will cause disputes unless a relationship has been
nurtured and a mutual respect has been gained through past experiences. Ultimately, only through negotiations, trust and sharing of the stresses that a construction project attracts can these two parties work alongside one another.

An evaluation of factors that contribute to the lack of communication and distrust between main contractors and subcontractors

As shown in Figure 3, the building of mistrust and breakdown of communication affecting the relationship between these two parties can be attributed to these 4 main causes.

![Figure 3: Main factors contributing to the communication breakdown and distrust between main contractor and subcontractor](image)

Withheld information

A study by Vee and Skitmore, (2003) into professional ethics in the construction industry observed that 81% of respondents had observed unethical behaviour related to tendering practices, such as tendering bias and the withholding of vital information in tendering documents. With 80% of respondents in this study either agreeing or strongly agreeing that main contractors withheld drawing revisions and other vital information regarding the project, Vee and Skitmore’s results are supported. Cost estimates prepared by the subcontractor require up to date information in order to provide the main contractor with an accurate cost analysis. At tender stage a scope of works is not always given, and it is up to the subcontractor to review the huge amounts of drawings provided. These drawings are not always clear, not trade specific, are often distributed in an unorganised and chaotic manner, and are binding. Conflicting information between drawings and specifications occur and while specifications usually override the information shown on the drawing, many disputes still stem from this.

Requests for Information (RFI’s) and revised drawings are dispersed and answered sporadically, leaving huge gaps of information and knowledge for the subcontractor. Problems also arise when information contained within a drawings’ amendments are
not distributed to the relevant trades in a timely manner. In addition, the drawings at construction stage can hide many discrepancies. Dishonest main contractors may purposely leave items out of plans and specifications/schedules that are provided, with the full knowledge that at a later stage these will need to be added thus being awarded the job at the lowest bid and later squeezing the subcontractor for these extras at the original tender price. This practice also causes confusion to the on-site labourers as well as causing a battle between main contractors and subcontractors over what is considered contract work and what is a variation. Document management systems such as Aconex are abused as instead of being used purely for fast and efficient document control, main contractors upload every single document comprised in the project and as a result flood the subcontractor in paperwork. The subcontractor does not have enough man power or time (as usually many jobs are being simultaneously run at once) to sort through what is relevant to their particular trade.

Hidden Clauses in Contracts

74% of respondents either agreed or strongly agreed that hidden clauses in contracts are also to blame for the cloud of mistrust. A consultant stated, “it is not uncommon that tier 1 and tier 2 builders drown the subcontractor in contractual documentation...the subcontractor is so focused on winning the job that he will sign anything at that point”. It is a common practice that due to time constraints subcontractors routinely sign lengthy contracts and agreements without closely reviewing the terms and conditions. Common clauses that should be reviewed due to their damaging nature to subcontractors are:

- Payment condition clauses are sometimes included that allows payment to be contingent meaning that on the premise that only if payment is made to the main contractor will the subcontractor be paid, and any pre-conditions should be carefully scrutinised.
- Variation clauses do not always define circumstances for unforeseen events and allow receiving payment for providing additional material/time/work.
- Termination within a contract needs to be differentiated between termination for cause and for convenience. ‘Cause’ needs to be clearly defined for all parties to mean specific events and a money amount should be agreed upon if the contract were to be terminated.
- Subcontractors are required to indemnify the contractor from damages claims. This is to shift risk to the subcontractor; more clauses should be included to shift risk to the contractor for their own negligence as the main contractor does not provide indemnity to the subcontractor.
- Subcontractors are required to warrant the work they perform to be free of defects. Warranty clauses sometimes include work that the subcontractor has not completed themselves as well as an over extended period for warranty cover including the mention of the remedy in case of a defect.
- Flow down is another important clause in which terms and conditions are imposed on the subcontractor and relates back to the prime contract.

Unclear scope of work’s
100% of respondents either agreed or strongly agreed that the scope of works distributed to them were unclear and lacked a lot of relevant information. The scope of works is one of the most vital parts in a contract as it defines the project deliverables by specific features and functions and is linked directly to a project’s success. The problems that arise with ineffective project scope management and unclear scope of works from the initial stages are:

- Ambiguity in a scope of works can lead to mistakes, confusion and redundant work.
- Incomplete scopes are linked to scheduling lags therefore leading to cost overrun.
- Changing scope of works would be ideal however that is not realistic.
- An un-collaborated scope leads to misinterpretation between participants on the requirements and the design.

Further, unclear documentation and specifications can also have a detrimental effect on the project procurement at the early stages. Materials that are not specified correctly or carelessly assembled on the finishes schedule can cause project delays and cost blowouts when sourcing alternatives. This leaves it open to interpretation and does not provide a clear price.

**Unsigned dockets for variation work**

73% of respondents either agreed or strongly agreed that unsigned dockets for variation work was a common practice even if the variation work was instructed on site and as it is unsigned it later becomes contested for payment. Majority of the time a construction project is riddled with problems and decisions that are required to be made fast and speedily on site, this generates fast and loose verbal instructions with a hidden expectation for the subcontractor to run with the variation at the moment of notice and not giving sufficient time for the paperwork to be documented.

**Summary**

It has been revealed that main contractors abuse and bend contractual obligations to their needs which directly contributes to the lack of communication and distrust between these participants of the supply chain. The eight key factors that arose from the analysis as influential to the relationship of main contractors and subcontractors were: overtime, retention payments, unclear scope of works, unsigned variation dockets, variation works, hidden clauses in contracts, withholding drawing revisions and extension of time. More importantly, the findings indicate that in each of these key factors can be counteracted if the subcontractor had more contractual knowledge and if the main contractor encouraged transparency. It has also revealed that the bodies charged with the health and safety of the labourers on site are either pushing their own agenda or simply do not have the capacity to be able to assist workers. The main insight into these findings is that subcontractors are left to fend for themselves as both the supply chain hierarchy and appointed bodies are pushing their own profit margins and agenda.
CONCLUSION

The findings of this paper offer preliminary findings and suggests all people engaged in Australian construction industry need an improved attitude toward subcontractors and change the way subcontractors are perceived as they are a key player in the construction industry by adopting teamwork principles based on partnering and stakeholder management to facilitate a healthy working environment and reduce the potential negative impact that could flow onto the overall construction project. In terms of construction companies, these findings may enable future development in more transparent contract claims and consultation with both groups in the early stages of project winning and program scheduling. It is anticipated that these findings trigger new outlooks for future researchers to expand their mode of inquiry and consider the inclusion of subcontractors’ perspectives. It is hoped that more grounded and innovate solutions will emerge in the future to assist in better management of trades and less stringent contractual agreements to be put in place.

REFERENCES


