

# Negotiating Contracts for Agile Projects: A Practical Perspective

Rashina Hoda, James Noble, Stuart Marshall

School of Engineering and Computer Science,  
Victoria University of Wellington,  
Wellington, New Zealand  
{rashina,kjx, stuart}@ecs.vuw.ac.nz  
<http://ecs.victoria.ac.nz>

**Abstract.** *The Agile Manifesto values “customer collaboration over contract negotiation”. However, in many real projects, Agile practitioners spend considerable time and effort negotiating contracts with customers. We have conducted grounded theory research in India with Agile practitioners. In this paper we present the strategies these practitioners use to overcome the problems of negotiating contracts. These strategies include changing the customers’ mindset, providing different options of working, and — in the worst case scenario — keeping the customers unaware of internal Agile practices.*

**Key words:** Contracts, Agile Project Management, Grounded Theory

## 1 Introduction

Agile practitioners often face challenges in adhering to their own agile principles. One such area where this occurs is the area of contract negotiation. During our qualitative research into the Indian Agile industry, we noted that most of our participants’ customers demanded fixed bid contracts with fixed time, cost and scope variables. The practitioners explained that the customers felt this provided them with a perceived sense of predictability and control over the project schedule, cost, and deliverables. Since software development firms and their customers need legal contracts, this left the Agile practitioners to handle the apparent contradiction between the customers’ desire for “certainty” with their own commitment to Agile values such as *responding to change* [1, 2].

In this paper we report the results of qualitative research conducted in India. We identify the key challenges these practitioners face during contract negotiation, and present their proposed solutions to these challenges.

These results are a part of our larger research effort to explore the challenges and strategies of managing Agile projects using Grounded Theory [3]. In section 2 we will briefly describe grounded theory and present the parameters of our research and analysis. In section 3 we will present the results of our analysis, and then in section 4 we will cover related work. We will conclude the paper in section 5.

## 2 Research Background

### 2.1 Grounded Theory

Grounded Theory (GT) is a qualitative research method developed by Glaser and Strauss [3]. GT is considered to be appropriate for research in areas that have not been studied before [4] and there is little academic research on the challenges of Agile project management in real world scenarios. The theory developed through this method does not have to be a universal truth, rather it needs to be a substantive theory describing processes in social organizations or communities [4]. GT researchers gather data and then systematically derive a substantive theory directly from that data, instead of first developing a theory and then systematically seeking evidence to verify it [4].

The researcher starts out with a general area of interest and gradually narrows their focus as they collect data from real life subjects. As we progress in our research, data collection, and analysis, we will move closer to developing a substantive theory. What we report in this paper are the major categories derived from the analysis of the data collected in India.

### 2.2 Participants and Procedure

We interviewed eight Agile practitioners from seven different software development organizations in India. The participants were using combinations of Scrum and XP . There were several Agile teams within the organizations. These teams used several Agile practices such as frequent releases, test driven-development(TDD), daily stand-ups, pair programming, release/iteration planning, continuous integration etc. The project duration varied from 2 to 4 months and the team sizes varied from 2 to 20 people on different projects. The products and services offered by the participants' organizations include web-based applications, front and back-office applications, and software development services. The interviewed participants were Scrum Masters and Agile coaches, except one who was a developer co-ordinating between the management and the rest of the team. The 8 practitioners included 2 CEOs of small scale firms who were certified Scrum Masters and had hands-on experience in working with their teams. We will keep the participants' identities confidential by referring to them only by number.

We conducted semi-structured, face-to-face interviews using open-ended questions. The interviews were recorded where permission was granted, and where the interviews were pre-scheduled. Then we started our coding [3]. GT coding involves the categorization, interpretation, and analysis of the collected data. We analyzed the data using the constant comparison method. This method requires that data from one interview or observation be compared to other pieces of data gathered from other interviews, observations and sources. Negotiating contracts for Agile projects emerged as a common category as a result of our data analysis, and we will now move on to discussing the results of this data analysis.

### 3 Data Analysis Results

Our participants mentioned contract negotiation as one of the main challenges they face in managing Agile projects.

“sometimes limitations are imposed by customers, like technology or contracts...they just want to give you scope, requirements and expect you to deliver it or they are looking for a fixed price contract....if you ask me biggest problems...one is contracts...they want three things: fixed deadline, fixed price, and fixed scope.” - Practitioner P3

Agile practitioners see fixed price contracts as a major limitation that the customers impose on them. Other practitioners shared their frustration over the issue of dealing with fixed time/scope/cost contracts, and their concerns on the impact that such contracts had on their ability to be agile and their ability to succeed.

“Fixed price doesn’t work well with Agile.” - Practitioner P1

“With Agile it’s difficult to do fixed price projects. Agile takes about embracing change, can’t do fixed price projects with changes coming in.” - Practitioner P5

Our participants shared with us some of the strategies they used to deal with the customers’ expectation of fixed bid contracts.

#### 3.1 Changing Customers’ Mindsets

“All they [customers] have done is fixed price for last 20 years...very difficult to say it will not be fixed price.” - Practitioner P5

Customers are used to fixed price/scope/time contracts. Our participants disclosed that it was difficult for their customers to change their ways of working to suit Agile projects. In a bid to resolve this issue of rigid mindsets, Agile practitioners often discuss the disadvantages of fixed bid contracts and the advantages of Agile development methods with customers. The same practitioner P5 shared the following property of Agile practices as an advantage to customers:

“...focus is on delivering business value as soon as possible - as a result of that you take items which are most required from point of view of business, not the ones that are most interesting in terms of technical implementation.” - Practitioner P5

Participant P8 noted that they often discuss with the customers how many features are seldom used. They also highlight how Agile allows the customer to avoid such situations by using prioritization of features, giving them more control of the product. Agile practitioners make an effort to change the mindset of the customers by encouraging them to look beyond the constraints of contracts, look at the bigger picture, and become convinced that Agile offers increased product control.

### 3.2 Providing Options

Agile practitioners offer different contract options to customers in order to encourage them to try Agile. Practitioners P3 and P8 encouraged customers to buy a few iterations to begin with instead of signing a contract for a large project up front:

“Most of the time... [we] sell a certain number of iterations.” - Practitioner P3

By allowing the customers to use Agile on a trial basis, Agile practitioners are able to build confidence among customers and provide them with risk coverage. Once the customers have tried a few iterations, then they are offered the option to buy more iterations or features as needed:

“One thing we [development firm] used to do and worked very well - we used to tell the customers you don’t have any risks...in case of Agile we enter into a contract with the client - OK we’ll show you working software every fifteen days, you’ll have the option of ending the project within one sprint’s notice. Maximum they can lose is one sprint. Advantage we show to client they don’t have to make up their entire mind [they] can include changes in sprints -they see it as a huge benefit to them.” - Practitioner P5

“Try for a month - then buy more sprints.” - Practitioner P8

Some Agile practitioners allow the customers to swap features. The project is delivered at the same time and price as initially specified in the contract, but the customer can remove product features that they no longer require and replace them with new ones that are of more value to them.

“...customer after seeing demo after 4th iteration realizes the features built, say the 13th feature, is not required and he needs something else...he can swap the two.” - Practitioner P5

The practitioners also provide the customers with a termination clause in the contract such that customers have the option to quit on a few iterations’ notice.

“...[customers are] open to suggestions to retreat after few sprints.” Practitioner P2

“[Developers] start working on functionality from day one and you can add a sprint - not enter into contract for entire project - end in one sprint’s notice and they [customers] can introduce change” - Practitioner P5

By providing the customers with the option to quit the project in the worst case scenario, some of their financial risks are covered. So if the customers are unhappy with the results, they can always quit the project.

### 3.3 The Last Resort

Some customers are still hard to convince so, Agile practitioners are forced to compromise with fixed bid contracts. In such situations, many Agile practitioners keep the customer unaware of the Agile practices being followed internally at the Agile organization.

“the company had taken charge of the projects - we had made it Agile - internally following Agile, making frequent releases to customers and asking for feedback. So customer was not aware.” - Practitioner P5

So while it seems like a traditional project to the customers, the development firm actually follows Agile internally at the team level. Sometimes Agile practitioners end up losing business as well.

“...no match between what Agile says and the way they [customers] wanted. Yes, we lost business.” - Practitioner P5

Ultimately, our participants’ documented experiences confirmed that there are hard realities in practicing Agile methodologies in the real world. While these challenges can have serious repercussions on the participants’ businesses (to the extent of losing a customer entirely), they continue to try to overcome these challenges with the different strategies discussed above.

## 4 Related Work

Many well known Agile practitioners and consultants have commented on the disadvantages of fixed price/scope/time contracts and have suggested their own solutions. Subramaniam and Hunt [5] suggest Agile practitioners should offer to build a small portion of the system on a trial basis. After the end of the iteration, the customer will have the option to continue or cancel the contract. This is reminiscent of the strategies of *providing options* discussed in section 4.2 that our participants have employed successfully.

Sutherland [6] introduces the concept of a ‘change for free option’ clause in standard fixed price contract. It allows customers to change feature priorities for free so long as the total contract work remains same. It also enables customers to “add new features if low priority items of equal work are removed from the contract.” This is similar to the strategies used by our participants which allows customers to *swap features*. Franklin [7] discusses how they evolved from time and materials contracts to fixed price/scope/schedule contracts that supports Agile development at their organization. They conclude that developing a responsive contract modification process and building in buffer for schedule and scope changes are essential for success.

Our data analysis aligns with the work of these earlier practitioners and consultants, and can be viewed as further evidence supporting the argument that fixed bid contracts and Agile principles are not directly aligned, and that subsequently contract negotiation is a real issue for Agile practitioners.

## 5 Conclusion

We have conducted ground theory qualitative research in the India Agile industry. Our research has identified that Indian Agile practitioners face a critical challenge in negotiating contracts and overcoming their customers' initial preference for fixed contracts. Our data analysis has uncovered some of the strategies employed by practitioners to overcome or mitigate this challenge. These strategies include changing mindsets of customers, providing different options of working, and in the worst case scenario - keeping the customers unaware of internal Agile practices. The strategies map on to similar ideas proposed by other researchers and practitioners in section 4, and our findings can be seen as supporting their arguments.

We plan to conduct follow-up interviews and observations with our practitioners. We will modify our future interview questions to focus on and explore these emerging categories.

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