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MAJOR ISSUES IN THE IMPLEMENTATION OF AGRICULTURAL MARKETING INFORMATION SYSTEMS IN DEVELOPING COUNTRIES

By

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A thesis submitted in fulfilment of the requirements for the degree of

Doctor of Philosophy

in

Information Systems and Operations Management,

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ABSTRACT

Information systems projects in developing countries continue to fail. My research aims to understand some of the major issues that negatively impact the success of public sector information systems projects in developing countries.

I conducted a qualitative study of a state agricultural marketing board in India. The board initiated an information systems project in 2003. The objective of the project was to connect the various agricultural markets spread across the state by deploying hi-tech information and communication technologies. Unfortunately, by 2011-12 the project was abandoned because of the growing conflicts between the government and private vendors implementing the project. The major stakeholders in the project included the government, private vendors, farmers and traders.

The data for this critical study was collected over a period of eight months from 2009 to 2012 using semi structured interviews, field visits and observations.

The findings of the research suggest that the lack of trust and resignation (to certain unfair practices being virtually impossible to change) are the core issues that impede success of information systems implementation in developing countries. Also, a lack of honesty and behavioural hegemony led to mistrust amongst the stakeholders.

Following, the analysis of the problems posed by the mistrust-resignation framework, this research suggests some solutions. Commodity information systems, stakeholder accreditation system, transaction feedback systems and stakeholder security systems are suggested as possible mechanisms for fostering trust.
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GLOSSARY

AMB Agricultural Marketing Board
AMIS Agricultural Marketing Information Systems
Bigha A term in Hindi language for land area. In state of Madhya Pradesh one begha is equivalent to 3025 square yards.
CCM Constant Comparative Method
CR Confidential Report
ECIS European Conference on Information systems
EKVI E-kirish vikan pariyojana (a Hindi language abbreviation for the information systems project)
e-Mandi An agricultural commodity trade market in India that uses information and communication technologies in the transaction processes
GO Government Officer
GoI Government of India
GT Grounded Theory
IAS Indian Administrative Services
ICT4D Information and Communication Technologies for Development
IFIP International Federation for Information Processing
IFIP WG 8.6 International Federation for Information Processing Working Group 8.6
IFIP WG 9.4 International Federation for Information Processing Working Group 9.4
IIMA Indian Institute of Management, Ahmedabad, India
IS Information Systems
ISDC Information Systems in Developing Countries
ISOM Department of Information systems and Operations, University of Auckland Business School
Kadi A term used for measuring the land in the Hindi dialect
Krishi Vigyan Kendra Hindi term for State Agriculture Science Centres
MD Managing Director
| **MDG** | **Millennium Development Goals** |
| **Madhya Pradesh Krishi Upaj Adhinniyam, 1972** | Name of the law (in Hindi language) that governs the agricultural trade in the yard. This translates in English as ‘Madhya Pradesh Agricultural Commodity Act, 1972’ |
| **Madhya Pradesh Krishi Upaj Mandi (mandi samiti ka nirvachan), 1997** | Name of the law (in Hindi language) on constitution of yard committees. This translates in English as Madhya Pradesh Agricultural Commodity Yard (constitution of yard committee), 1997 |
| **Member of the Legislative Assembly** | MLA |
| **MP** | Madhya Pradesh |
| **MPSAMB** | Madhya Pradesh State Agricultural Marketing Board |
| **MPSAMS** | MP State Agricultural Marketing Services |
| **MSP** | Minimum Support Price |
| **NIC** | National Informatics Centre, India |
| **NOC** | No Objection Certificate |
| **Panchayat** | Panchayat is the village level democratic institution in India. Elections at village level are conducted for constitution of the panchayat. |
| **Patwari** | Patwari is a village based government officer commonly called in English as village accountant. The officer maintains the records of rights for the land holdings in the village. |
| **PP** | Private Partner (a consortium of private vendors who were responsible for implementation of the agricultural marketing information systems project) |
| **PSC** | Public Service Commission |
| **Sauda** | Hindi word which means ‘agreed trade’ |
| **Tulawati** | Hindi word for a ‘weight certificatory’ |
| **UoA** | University of Auckland, New Zealand |
| **UoAHPEC** | University of Auckland Human Participants Ethics Committee |
| **URD** | Un-Registered Deals (a common term used in the yards that suggests that certain transactions are not recorded and hence are not liable for any tax/service charge payments) |
| **XXXXX** | Pseudo names of individuals or organisations used for confidentiality purposes |
Pseudo names of individuals or organisations used for confidentiality purposes
"Strip away all the hype about rural tele-centres and e-government for the masses and telemedicine for remote regions and e-commerce for microenterprises and what you've got – when you apply ICTs to the MDG agenda – are the rusting tractors for the 21st century. Most of these projects never properly work, and for those that might just get off the ground, go back two years later, and it is all crumbled to dust. Yes, there might be exceptions but they are just that – exceptions; occasional minnows swimming against a rip tide of failure."

(Heeks, 2005 p. 3)

1.1 Research background

This research is an outcome of a personal quest to understand the reasons for failure of public sector information systems projects in developing countries. This quest started in 2003 when I started working on assessments of public sector rural development projects. With every new assessment, I was learning that the intended benefits of the project had barely reached the intended beneficiaries. I also learnt that most of the projects were failing.

Hence, I started to take an interest in the implementation of information and communication technology projects in India. While assessing these projects, I learnt that despite the use of the most advanced information and communication technology, e-government projects continued to fail. This suggested that there must be a few issues that are common in developmental projects that are independent of the technology itself. Following this observation, I became more and more interested in understanding some of the central issues that impact the performance of the information and communication technology projects in developing countries. This research is my personal journey towards fulfilling this quest.
1.2 Importance of agricultural intervention

The millennium development goals have changed the emphasis of development from economic growth to poverty reduction (Christiaensen et al., 2010). Nearly three fourths of the world’s poor live in rural areas and depend on agriculture for their livelihood (Giovannucci et al., 2012). Estimates are that nearly 1.4 billion across the globe are earning less than $1.25 a day (van der Ploeg, 2012). Furthermore, the dominance of agriculture as a means of occupation is expected to continue at least for few more decades with the estimates that the bulk of the population of developing countries will continue to be rural till 2040 (World Bank, 2009).

Experience suggests that agriculture can play a crucial role in poverty reduction (Raitzer & Maredia, 2012). Studies indicate that the growth in agriculture is considered to be much more effective in reducing poverty than the growth in other sectors (Aker, 2011; Baxter, 2012; De Silva & Ratnadiwakara, 2008; Manda, 2002; World Bank, 2009). Over eighty per cent of the reduction in the worldwide poverty levels during the period 1993 – 2002 was attributed to improvements in the rural sector while the urban sector yielded less than twenty per cent share in poverty reduction (World Bank, 2009). Historically it has been observed that agricultural growth is a prerequisite to successful industrialisation (Hazell et al., 2010). Examples of countries such as India and China indicate that periods of agricultural growth are simultaneously the periods of poverty decline (Ghatak, 2010).

Recent approaches to development have reflected that agriculture in developing countries is an area of corporate strategic interest (Prahalad, 2005; Prahalad & Hammond, 2002; Prahalad & Hart, 2002).
1.3 **Issues with agricultural marketing information systems (AMIS)**

Broadly, there are two approaches to improving agricultural productivity. The first approach suggests improvement in agricultural production through investments in research and development. Better quality seeds, for example, will yield better harvests. The second approach suggests reforms in the agricultural supply chain and *marketing* of the agricultural commodities. The concern of this research is the latter.

Information and Communication Technology (ICT) can play a decisive role in agricultural marketing because information about weather forecasts, market prices, and the demand-supply status can be readily accessed and distributed through its use. Following this rationale, in the last two decades many government organisations, non-government organisations, and corporate and funding agencies across the developing countries, have initiated ICT projects that exclusively deal with agricultural marketing (for example, see Banker et al., 2011; Kamala, 2008; Lokanathan & De Silva, 2010; Molony, 2008; Parikh et al., 2007).

Empirical evidence indicates that there are various kinds of problems in the conceptualisation, design and implementation of these projects. In most cases, these projects are conceptualised as *price information systems* that do not address the various *marketing* asymmetries in the supply chain (Islam & Grönlund, 2010; Park, 1989; Shepherd & Schalke, 1995; Tollens, 2006). They suffer due to various contextual problems such as lack of education and the illiteracy of the farmers (Lokanathan & De Silva, 2010), lack of supporting policies (Rao, 2007) and intermittent political interference (FAO, 1997). There are various procedural problems in their implementation such as problems with data collection and its transmission (Shepherd, 2005). Economically, these projects often do not have funding support and the freedom of financial planning (Calderon-Salin, 1999; Tollens, 2006).
government organisations implementing these tend to be ridden with rigid bureaucracies, corruption and inefficient project management (Islam & Grönlund, 2010).

1.4 Research question

Given these various kinds of problems and issues related to AMIS implementation, this research project seeks to understand the major issues in the implementation of AMIS in developing countries. Consequently the research question that it addresses is:

What are the major issues in the implementation of agricultural marketing information systems in developing countries?

To try to answer this question, the research undertook a critical case study of an agricultural marketing board which implemented an AMIS project in the year 2003 by using ICT to connect over two hundred market yards in the central Indian state of Madhya Pradesh. By 2011-2012, the project was abandoned with the government and private partners blamings each other for its failure. This case provided a timely opportunity to understand the central issues that eventually led to the failure of the project. Hence, after identifying these issues, I also suggest some possible solutions for addressing these issues.

1.5 Thesis structure

The thesis is organised as follows. This chapter provides an outline of this research and the thesis contents. Chapter two presents the literature review on AMIS in the context of the problems of agricultural marketing. It summarises the past research findings on the issues of AMIS implementation. The review discusses the issues of agricultural marketing and presents the stakeholder practices identified in the past research. The literature review also identifies

---

1 Henceforth I have used the term ‘private partners’ to refer to the private vendors.
that trust issues are not given adequate importance in the later studies of AMIS (Islam & Grönlund, 2010 p. 115).

In chapter three, I present my theoretical framework. The framework is based on the theory of practice proposed by French anthropologist and philosopher Pierre Bourdieu (1930 - 2002). The initial theoretical framework suggests that context shapes and is shaped by stakeholder practices and their dispositions. Their interaction is linked to the understanding of the major issues of implementation of information systems in developing countries.

Chapter four presents the research methodology. The chapter seeks to explain the epistemological and philosophical assumptions of the research. It also presents the research methods employed in the research.

In chapter five, the case of the EKVI project\(^2\) (e-Krishi Vipnan Initiative i.e. e-Agricultural Marketing Initiative) implemented by the Madhya Pradesh State Agricultural Marketing Board (MPSAMB), Government of Madhya Pradesh is described. It puts the case in perspective by discussing the historical, geographical, social and cultural context of the information systems implementation.

Chapter six presents the preliminary analysis of issues of the market yards. It provides an overview of the conflicts that emerged amongst the stakeholders. Chapter seven presents an analytical description of the main themes. The themes described in this chapter include: stakeholder strategies, trust issues amongst stakeholders, negative perceptions about other stakeholders, government employee issues in the yard, context of farmers, context of trade, major problems in the yards, information systems (IS) implementation issues and general perceptions about Indian society.

\(^2\) This is the Hindi language acronym for the information systems project.
In chapter eight, the themes and their relationships are analysed. Here, I highlight that the central issues in the implementation of AMIS (and IS) are *lack of trust* coupled with *stakeholder resignation*. I draw attention to the elements of trust formation namely *efficiency*, *sincerity*, *honesty* and *hegemony*. I analyse these elements within and across the stakeholder groups and draw my final conclusions. I also suggest the solutions that address these central issues. Finally, in chapter nine, I relate my findings with past research, highlight the contributions of this research, suggest some recommendations, identify limitations of this research and present my conclusion.
CHAPTER 2 – LITERATURE REVIEW

“Just as a berry picker would meander through the bushes, looking for clumps of berries (Bates, 1989), the searcher wanders through the information forest, changing directions as needed to follow up on various leads and shifts in thinking”.

(Barroso et al., 2003 p. 157)

In this section, I present the analysis of literature on AMIS. For selecting the literature, I followed the approach of ‘berry picking’ as described by Barroso et al., (2003). Following this approach, I used footnote chasing, citation searching, journal runs, author searching and subject searches in bibliographic databases. My research question was: What are the major issues in the implementation of AMIS in developing countries? Consequently, I was able to gather a corpus of research papers on information issues in agricultural marketing covering a period of thirty five years from 1967 (Abbott, 1967) to 2011 (Ghadiyali et al., 2011). These research papers were analysed. I was able to identify the following main issues related to AMIS.

2.1 Conceptualisation challenges of AMIS

Information systems researchers have identified four types of agriculture related information systems. These are knowledge management systems, inspection and certification systems, market information systems and procurement and traceability systems (Parikh et al., 2007). A “marketing information system” fails to fall in any of these categories because of the conceptual differences between the terms market and marketing in agriculture. Park (1989) conceptualises agricultural activities as complex business activities rather than a simple means of subsistence. The author sees agricultural marketing as a coordinated activity of farm supplies, harvesting and production, logistics and commodity processing. The author
mentions that while price information systems are well conceived, the ‘marketing’ component has not received adequate attention from reformers. Shepherd and Schalke (1995) suggest that marketing is a broader concept that includes “details on potential market channels, payment requirements, packaging, quality and a whole range of other information, including market information.” According to Van Crowder (1997), market information alone limits the farmers to react to changes in prices. Marketing information, on the other hand, provides them an opportunity to manoeuvre according to the market dynamics. By and large AMIS have been wrongly conceptualised as price information systems and hence the majority of AMIS projects in developing countries merely capture the price or quantity of agricultural commodities in various retail or wholesale markets (Islam & Grönlund, 2010 p. 109; Park, 1989 pp 26-27; Tollens, 2006 p. 8).

Also, a clear definition of AMIS is not available. Researchers have presented definitions of information systems that relate to prices of agricultural commodities. For instance, there are highly cited definitions for agriculture market information systems (Park, 1989) and agricultural market information service (Shepherd, 1997; Shepherd & Schalke, 1995). These definitions are often mistaken for the definition of agricultural marketing information systems. Consequently, the definitions proposed for (agricultural) market information service (Shepherd & Schalke, 1995) are quoted in lieu of agricultural marketing information systems (for example see Dharmaratne, undated). Researchers have taken definitions of price information systems for granted, and have made no effort to present the definition of AMIS even when they discuss AMIS at length. For instance, Binayee (2005) provides a typology of the AMIS but does not define AMIS. Okwoche et al., (2010) present their findings from an evaluation of AMIS in Nigeria but fail to provide a definition or conceptualisation of AMIS. Dharmaratne (undated) presents a description of AMIS, but does not present a definition of AMIS. In the absence of a clear definition of AMIS, researchers use incorrect terms such as
“agricultural market information systems” in place of “agricultural marketing information systems” when what they discuss are the issues of ‘marketing’ and not merely ‘market’ (for example, see Islam & Grönlund, 2007).

This inaccurate conceptualisation of AMIS as price information systems has serious repercussions because the issues of ‘marketing’ are subsumed under the issue of ‘prices’. Empirical evidence suggests that such a conceptualisation has an impact on the design and evaluation of information systems. For example, an impact assessment report of the Department of Information Technology (DIT), Government of India describes the current AMIS project as:

“The e-mandis provide a series of services such as latest information on daily arrival of crops, rates at which the crops have been sold, rates prevailing in other mandis, weighing of the crops, auctioning of the crops, details of crops transacted, etc.

(DIT, 2008 p. 92)

Observe here that there is no mention of terms related to agricultural marketing such as product packaging, logistics or supply chain. Clearly, this description is incomplete because price information is only one aspect of commodity marketing. Other noteworthy aspects are removal of intermediaries, providing agricultural knowledge and transformation of the agricultural supply chain as a whole (Banker et al., 2011).

Most of the agricultural marketing information systems are thus wrongly implemented as price information system. For example, (Islam & Grönlund, 2010; Tollens, 2006) quote a survey of fifty three AMIS spread over 120 countries and suggest that most of these were functioning merely as price collection systems. Studies have also suggested that digital trading platforms may provide similar prices as the manual trading platforms (Banker et al.,
2011) and hence better price realisation alone (or price uniformity) cannot be the intended objective of an AMIS.

AMIS is conceptually, integration of the four types of information systems that have been described by Parikh et al., (2007). Figure 2-1 below presents this model of conceptualisation of AMIS.

![Figure 2-1: Integrated conceptualisation of AMIS based on (Parikh et al., 2007)](image)

The organisation I studied is called the Madhya Pradesh Agricultural Marketing Board, and the current IS implementation project is called the *e-krishi vipanan pariyojana* which precisely translates into *e-agriculture marketing project*. This suggests that the project is concerned with the ‘marketing’ aspect and not just the ‘market’ aspect.

### 2.2 Empirical challenges in AMIS implementation

Researchers have studied various implementation challenges of AMIS; here I briefly present a review of these challenges. First, there are issues of financial sustainability. Often organisations implementing AMIS deploy their own staff for collection of data. This results in overhead expenses that cannot be sustained over a long period. In some cases, the cost of
subscription for the service is too high to be sustainable (Lokanathan & De Silva, 2010). Calderon-Salin (1999) studies the AMIS implementation in Honduras and mentions budgetary independence and sustained funding as two factors that result in successful AMIS implementation. Various other researchers have come up with similar conclusions (Dharmaratne, undated; Islam & Grönlund, 2010; Shepherd, 1997; Tollens, 2006).

Second, there are issues related to public sector organisational culture in developing countries. Researchers have suggested that rigid bureaucracy, corruption and attitude of government officers in developing countries pose a challenge to information systems implementation generally, and AMIS implementation in particular (Shepherd, 1997; Walsham, 2010). For instance, Shepherd (1997) makes the following observation:

“An additional factor is that the peak time for market trading is often early in the morning, whereas government officials usually prefer to work from nine to five. There is a temptation not to visit the market regularly but to guess prices.”

(Shepherd, 1997 p. 18)

AMIS are sometimes deployed to serve the information needs of the government officers rather than the farmers who are meant to be the intended beneficiaries in AMIS (Islam & Grönlund, 2010; Tollens, 2006). Moreover, government organisations often do not have competent and well-trained employees (Calderon-Salin, 1999).

Third, researchers have identified issues with data collection and their accuracy. Often the data collectors are not adequately trained or their role is not properly defined and hence high-quality reliable data is not collected on commodity volumes or prices (Islam & Grönlund, 2010; Shepherd, 1997).

Fourth, there are contextual challenges to AMIS implementation. AMIS implementation might not be accompanied with changes in the statutory laws as is demonstrated in the e-
choupal case (Rao, 2007). There are also frequent interventions from the powerful stakeholder groups such as traders and politicians (Shepherd, 1997). There are also issues with awareness levels of farmers who are often not aware of the various kinds of information services available through an AMIS (Lokanathan & De Silva, 2010; Mittal et al., 2010) or do not get information in the language they understand (Islam & Grönlund, 2010). The net result is that farmers are not able to utilise the full potential of information systems (Mittal et al., 2010).

Fifth, there are also expectation challenges and AMIS often do not meet farmers’ expectations. Research studies have shown that AMIS does not provide knowledge about core agricultural practices. Kamala (2008) for instance, in their AMIS implementation study did not find any evidence about farmers retrieving agriculture best practices information from the web portal. This indicated that, for agricultural best practices, farmers relied on other information sources such as radio or discussions with other farmers (Drafor & Atta-Agyepong, 2005; Kato & Nkonya, 2005; Khatiwada, 2005).

Lastly, there are various other problems. Often ICT projects are implemented in an ad-hoc manner (Bailur, 2007) and AMIS projects do not have a dedicated team unit for project implantation (Islam & Grönlund, 2010). Some researchers have also mentioned that AMIS implementation in developing countries is not accompanied by an investment in market infrastructure and this result in price volatility (von Braun, 2009).
2.3 **Research issues of agricultural marketing**

In the preceding discussion, I have presented the conceptual and practical challenges in AMIS implementation. I now discuss the challenges which relate to the broader field of Agricultural Marketing. It is essential to present these challenges because the challenges of agricultural marketing cannot be separated from the theoretical framework of AMIS.

At the outset, it seems that the issues or challenges that are discussed in the discipline of agricultural marketing are far more varied than those discussed within the AMIS studies. First, agricultural marketing researchers of developing countries have discussed in detail the agricultural marketing boards, their types, their history (Abbott, 1967; Ellis, 1983; Kydd & Dorward, 2004; Tollens, 2006) and their success and failure reasons such as the role of state, policy reforms, availability of credit, over-staffing issues and lack of employee professionalism, and corruption and lack of integrity (Abbott, 1967; Roy & Thorat, 2008; Williams, 2009).

Second, agricultural marketing researchers have identified that high transaction costs pose a considerable challenge in agricultural marketing and restrict the participation of farmers in the market activities (Acharya, 1998; Barrett & Mutambatsere; Batt, 2004; Blattman, Jensen, & Roman, 2003; Kydd & Dorward, 2004; Shilpi & Umali-Deininger, 2008; von Braun, 2009). Researchers have discussed the farmer’s uncertainty about the market costs and the impact of high search costs on the prices offered to the farmers (Jensen, 2010). Third, agricultural marketing researchers have identified various institutional and policy issues that have a negative impact on agricultural marketing. For instance, Tschirley (2008) mentions that exclusion of the poorest of the poor farmers from the agricultural supermarket supply chains is not a focus area of agriculture policy in the developing countries. Barrett &
Mutambatsere (undated) mention that the rules and regulations are only enforced to a limited extent in the agricultural markets of developing countries.

Fourth, researchers in agricultural marketing have also undertaken detailed discussion on trust issues in agricultural marketing. Researchers have suggested that trust is paramount in agricultural marketing as it reduces uncertainty across the agricultural supply chain and trustful relationships are essential for agricultural development (Ballantyne, 2009; Best et al., 2005; Rajendran et al., 2012). Building trust becomes a particularly effective strategy when there is uncertainty, for example, about seed quality in the absence of seed certification systems. Also, trust becomes crucial when the judicial or legal system related to agricultural marketing is not easily accessible (Batt, 2001a, b, 2003; Batt, 2004; Batt & Rexha, 1999). Some definitions of trust have been given along with the trust types that are suitable to agricultural marketing namely; contractual, competence and goodwill trust (Batt, 2001a; Batt, 2004; Best et al., 2005).

The formation of trust has been discussed in agricultural marketing, and some notable cues have been suggested. Some factors or conditions have a negative impact on trust formation in agriculture marketing in developing countries. Use of coercive power by stakeholders, opportunistic behaviour and trader collusion, has a negative impact on trust formation in agricultural supply chains. On the other hand, relationship investments, satisfaction with past services, information sharing attitudes and humbleness have a positive impact on trust formation (Banerji & Meenakshi, 2004; Batt, 2001a, b, 2003; Molony, 2008). Researchers have suggested that trust formation in agricultural marketing is a long term process (Batt, 2001a, b, 2003; Best et al., 2005; Molony, 2008).

Researchers have discussed certain behavioural patterns of the stakeholders in agricultural marketing that have an impact on stakeholder trust (Drafor & Atta-Agyepong, 2005; Jensen,
2010; Mittal et al., 2010; Molony, 2008). Molony (2008) finds that farmers are highly selective in sharing demand information especially when the demand of the commodity is high; also, they seem to have a preference for face to face communication rather than technology mediated communication (see also Mittal et al., 2010). In this study, the author describes the case of an intermediary called “Kamwene” in Tanzania who seem to be more popular and trustworthy amongst the farmers because of being more mindful of the personal relationships rather than being technology savvy. The authors present the following description about Kamwene:

“Kamwene comes to the countryside because he is a good dalali (commission agent) and he likes to drink komoni with us. Other madalali come to farmers when they want something, like a politician when it is time to vote. Kamwene comes many times and stays with us for a long time.”

(Molony, 2008 p. 652)

A compilation of such behavioural traits has remarkably high pragmatic value for the design of information systems in developing countries. For instance, Batt (2004) mentions that farmers do not abide by their contractual agreements, and do not pack their commodities diligently. Traders, on the other hand, do not do correct weighing of the commodities (Chengappa, 2003; Kydd & Dorward, 2004) and form cartels to control the prices of agricultural commodities (Banerji & Meenakshi, 2004; Meenakshi & Banerji, 2005).

From a careful analysis of the seventy six research articles, I was able to identify agricultural marketing related practices of farmers and traders. These are presented in the Table 2-1 below along with their citation sources.
<table>
<thead>
<tr>
<th>Practices of stakeholders</th>
<th>Citation Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers do not abide by their auction contracts.</td>
<td>(Best et al., 2005)</td>
</tr>
<tr>
<td>Farmers do not maintain a written record of their transactions.</td>
<td>(Batt, 2004)</td>
</tr>
<tr>
<td>Farmers do not pack their agricultural commodities properly.</td>
<td></td>
</tr>
<tr>
<td>Farmers do not show true sample of the commodity to the traders.</td>
<td></td>
</tr>
<tr>
<td>Farmers have a tendency to over report the prices of commodity sold.</td>
<td></td>
</tr>
<tr>
<td>Farmers maintain close relationships with the traders.</td>
<td></td>
</tr>
<tr>
<td>Farmers sell the commodities immediately after their harvest.</td>
<td>(Tollens, 2006)</td>
</tr>
<tr>
<td>Farmers use their social networks to identify intermediary.</td>
<td>(Molony, 2008)</td>
</tr>
<tr>
<td>Small scale farmers are inclined to use group-based marketing strategy.</td>
<td>(Liu, 2002)</td>
</tr>
<tr>
<td>Traders exaggerate their purchase prices and under-quote their selling prices.</td>
<td>(Batt, 2004)</td>
</tr>
<tr>
<td>Traders make less payment to farmers than the agreed prices.</td>
<td>(Pokhrel &amp; Thapa, 2007)</td>
</tr>
<tr>
<td>Traders do not divulge their purchase information for fear of being taxed.</td>
<td>(Tollens, 2006)</td>
</tr>
<tr>
<td>Traders do not weigh the commodity weights correctly.</td>
<td>(Chengappa, 2003; Kydd &amp; Dorward, 2004)</td>
</tr>
<tr>
<td>Traders form cartels to control the commodity prices.</td>
<td>(Banerji &amp; Meenakshi, 2004; Meenakshi &amp; Banerji, 2005)</td>
</tr>
<tr>
<td>Traders control the harvesting of commodities.</td>
<td>(Pokhrel &amp; Thapa, 2007)</td>
</tr>
<tr>
<td>Traders are inclined to offer the lowest possible prices to farmers.</td>
<td>(Goyal, 2010; Muto &amp; Yamano, 2009)</td>
</tr>
<tr>
<td>Traders provide seed loans to the farmers on the condition that the produce will be sold to the traders at pre fixed prices.</td>
<td>(Batt &amp; Rexha, 1999)</td>
</tr>
<tr>
<td>Traders provide credits to the farmers.</td>
<td>(Anupindi &amp; Sivakumar, 2007; Batt, 2001a; Batt &amp; Rexha, 1999; Blattman et al., 2003; FAO, 1997; Molony, 2008)</td>
</tr>
<tr>
<td>Traders prefer to engage with road side farmers.</td>
<td>(Molony, 2008)</td>
</tr>
<tr>
<td>Traders prefer to buy graded perishable commodities from the farmers.</td>
<td>(Batt, 2004)</td>
</tr>
</tbody>
</table>

Table 2-1: Stakeholders’ patterns of behaviour cited by researchers
Researchers have also discussed various other issues related to agriculture marketing. For example, (Acharya, 1998; Barrett & Mutambatsere, undated; Shilpi & Umali-Deininger, 2008) discuss the problems of inadequate infrastructure and (Tschirley, 2008) discusses the abysmally low levels of hygiene in the agricultural markets and the positive impacts of improving the hygiene in these agricultural markets. The asymmetric nature of trade in developing countries such as atomistic-oligopolistic production and marketing system, and asymmetric profitability along the agricultural supply chain, especially towards the end of consumers are discussed also discussed (Batt, 2004). Researchers have discussed the minimum support prices (MSP) offered by governments and have discussed the credibility of MSP calculations in countries such as India (Meenakshi & Banerji, 2005).

2.4 Summary

The literature review indicated that in the developing countries, the practices of stakeholders in agricultural marketing were unfair and opportunistic. For example, farmers do not show true sample of the commodity to the traders, and the traders do not provide the agreed price to the farmers. Such practices may often result in low levels of trust between the stakeholders. Furthermore, researchers have suggested that certain elements related to trust formation (such as benevolence) have not received adequate research attention (Schoorman et al., 2007). This suggested that it was essential to empirically test the elements that are related to trust formation in the implementation of AMIS. In this literature review, I have identified some of the most important issues and challenges in AMIS implementation. This chapter provides the background and rationale for my research project. Next chapter presents the theoretical tools that I use in my research.
“There is no doubt a theory in my work, or, better, a set of thinking tools visible through the results they yield, but it is not built as such...It has more to gain by confronting new objects than by engaging in theoretical polemics that do little more than fuel a perpetual, self-sustaining and too often vacuous meta-discourse around concepts treated as intellectual totems”.

Bourdieu, P. in (Wacquant, 1989 p. 51)

3.1 Background

In this chapter, I present the theoretical framework that guided this research. My theoretical framework is based on the theory of practice proposed by Bourdieu (Bourdieu, 1977, 1990). The theory has been used by some IS scholars to understand the practices of stakeholders in IS implementation (Myers & Klein, 2011). Various applications of the theory are seen in information systems research, for example, those describing the results of intersection of different practices or the relationship between practices of implementers and those “embedded” in the technology (Levina & Vaast, 2005; Schultze & Boland Jr, 2000). The theory explains the constitution and reproduction of social structures, through the intermediations of class influences in the social space where agents are constantly striving to accumulate various forms of capital. At the heart of the theory of practices, are the concepts of habitus, fields, practices and capital.

According to Bourdieu, agents struggle over three types of capital namely, cultural, economic and symbolic capital. Symbolic capital refers to the reasons for legitimisation of practices. The volume and composition of capital and the social trajectory of agents together, impact the practices of agents. However, this relationship is mediated by the Habitus of the agents.
Habitus is the term used by Bourdieu that refers to the subtle but strongly ingrained factors that shape the actions of agents, especially in situations, where the rules of behaviour are not explicit. Habitus also refers to the subjective perceptions about the chances of success foreseen by the agents for a particular action, given their class status (Swartz, 1997). The *habitus* links the behaviour of agents with their class status. This is mentioned by Bourdieu (1984) as follows:

“…To do this, one must return to the practice-unifying and practice generating principle, i.e., class habitus, the internalised form of class condition and of conditionings it entails. One must therefore construct the objective class, the set of agents who are placed in homogeneous conditions of existence imposing homogenous conditionings and producing homogenous systems of dispositions capable of generating similar practices; and who possess a set of common properties, objectified properties, sometimes legally guaranteed (as possession of goods and power) or properties embodied as class habitus (and, in particular, systems of classificatory schemes)”.

(Bourdieu, 1984 p. 101)

According to Bourdieu, *Habitus* develops class specific tastes in the agents. Individuals develop a sense of liking or disliking, (such as things, people, qualities or attributes), as they interact with the social world. Such senses of liking or disliking are primarily shaped by the social class and rank, and are represented in the habitus of individuals. Tastes are then used as a criterion to make social adjustments. Tastes are thus primarily an outcome of the class and rank of individuals, and they also contribute to the maintenance of the social structure. Bourdieu (1984) describes tastes as follows:
“a system of matching properties, which includes people – one speaks of a ‘well-matched couple’, and friends like to say they have the same tastes – is organised by taste, a system of classificatory schemes which may only very partially become conscious although, as one rises in the social hierarchy, life style is increasingly a matter of what Weber calls ‘stylization of life’. Taste is the basis of mutual adjustments of all the features associated with a person…”

(Bourdieu, 1984 p. 174)

Bourdieu (1984) discusses various types of tastes depending on the cultural or economic capital possessed by the agents. For example, he mentions “popular”, “middle brow”, “barbarous”, “bourgeois”, “intellectual”, “petit-bourgeois”, “taste of reflection”, etc. At a macro level, two categories of tastes are prevalent, namely ‘tastes of necessity’ and ‘tastes for freedom’ (Swartz, 1997 pp. 166-168). The former refers to tastes developed out of economic necessity, while the latter reflects tastes developed out of freedom from such necessities.

The *habitus* of agents develops a certain liking in them, for tastes that are suited to their class. In situations in which tastes or dispositions other than those possessed by the agents are appreciated, the agents feel misplaced. Bourdieu describes this phenomenon in the book, The Bachelors’ Ball (Bourdieu & Nice, 2008), in which he describes the uneasiness of the peasants in the ball room dancing as follows:

“If he is in any way clumsy, ill-shaven, ill-attired, the peasant is immediately perceived as the *hucou* (the tawny owl), unsociable and churlish, ‘sombre (*escu*), clumsy (*desestruc*), grumpy (*arrebouhiec*), sometimes gross…, graceless with women…

Placed in such a situation, the peasant is led to internalise the image that others form of him…He comes to perceive his body as a body marked by social stamp,…as an
‘em-peasanted’ body, bearing the trace of the attitudes and activities associated with peasant life. So he is embarrassed by his body, and in his body. Because he grasps his body as a peasant’s body, he has an unhappy consciousness of his body...

This unhappy consciousness of his body...excludes him from the dance...prevents him from having simple, natural attitudes in the presence of girls.”

(Bourdieu & Nice, 2008 p. 86)

With the given habitus, that ascribes a certain taste to one’s class, the agents enter their fields (such as fields of their profession) to exchange or acquire the capital in order to improve their positions in the social space.

Fields represent the social space where agents struggle for acquiring the capital (Jenkins, 1992; Levina & Vaast, 2005). A field has its own interest that provides the basis for the struggle between agents. In fact there are as many fields as there are interests. These interests, according to Bourdieu (1990, p.88) are a “historical construction” and are not “deduced a priori”. Interest, thus, is a pre-condition for the existence of field. Each field is unique and has a boundary that distinguishes it from the other fields. For example, Levina and Vaast (2005) present “profession” as a criterion to distinguish the fields of marketing from engineering. It is in these fields that stakeholders exchange their capital and interact with each other (Jenkins, 1992; Levina & Vaast, 2005). Fields are not only the arena of struggle over resources, but more importantly they are also the arenas of struggle for legitimization of practices (Swartz, 1997). The composition and volume of capital possessed, determine the location of the agents in the fields. The interactions between habitus, field and the capital, yield the practices of agents. This relationship is described by Bourdieu in form of formula (1984 p. 101) as follows:

\[(\text{habitus})(\text{capital}) + \text{field} = \text{practice}\]
Thus *practices* are shaped by the interactions of agent’s habitus and his adaptations to the *field* of struggle over capital. The key message that Bourdieu (Bourdieu, 1990) presents is that repeated interactions between the field and habitus provide certain mastery to agents in their practices so that agents themselves may not be conscious of their practices. Bourdieu suggests this by presenting an analogy between the field and the game.

> “Since the habitus, the virtue made of necessity, is a product of the incorporation of objective necessity, it produces strategies which, even if they are not produced by consciously aiming at explicitly formulated goals on the basis of an adequate knowledge of objective conditions, nor by the mechanical determination exercised by causes, turn out to be objectively adjusted to the situation. Action guided by a ‘feel of the game’ has all the appearances of the rational action that an impartial observer, endowed with all the necessary information and capable of mastering it rationally, would deduce. And yet it is not based on reason. You only need to think of the impulsive decision made by the tennis player who runs up to the net, to understand that it has nothing in common with the learned construction that the coach, after analysis, draws up in order to explain it and deduce communicable lessons from it. The conditions of rational calculations are practically never given in practice: time is limited, information is restricted, etc.

(Bourdieu, 1990 p. 11)

Thus *Logic of Practice* suggests the behavioural improvisations that happen over a period of time. Indecision or uncertainty yields delay in the occurrences of events, and gives time to individuals to reflect and improvise their behaviour. Thus, practices are strategic adaptations (Jenkins, 1992; Kvasny, 2005), which eventually yield the social structures. The social structure then, creates the *habitus* through class and rank classifications.
Habitus is not merely physical disposition, but also the way individuals feel and think. It represents their socio-psychological makeup; internalised mental structures of their personality that help them to interact with the world (Jenkins, 1992). Habitus determines the behaviour of individuals (Richardson & Howcroft, 2006). There is a reciprocal relationship between the field and habitus, each influencing the other. Habitus also interacts with the patterned behaviour of individuals i.e. their practice. It causes practice and is also caused by it. Figure 3-1 below presents the relationship between social structure, habitus and practice as suggested by Harker (1990; reproduced in Schultze & Boland Jr, 2000).

![Figure 3-1: Relationship between Habitus, Practice and Structure (Harker, 1990)](Figure removed from digital copy of thesis for 3rd party copy right reason)

### 3.2 Relevance to current research

I believe Bourdieu’s theory, and in particular his concepts of practice and habitus are relevant for understanding some of the major issues found in my research on AMIS implementation in India. This is for the following reasons:

First, practices are the behavioural patterns of stakeholders. Without their knowledge, a true understanding of the major issues of IS implementation cannot be obtained (Vaidya, Myers, & Gardner, 2011a). The IS implementation in the yard presents a case of multiple stakeholders, each with its own set of practices. For example, researchers have suggested that, in developing countries such as India, it is a common practice amongst the traders to deliberately under-weigh the commodity of the farmers (Chengappa, 2003; Kydd & Dorward,
Similarly, studies indicate that it is a practice of the farmers to show false samples of their commodity to the traders (Batt, 2004). An interaction between these two practices may have a significant impact on any plan to implement information systems. For example, the data with respect to weight and quality are likely to be inaccurate. Extra costs will be incurred to deploy manpower or install instruments to ensure correct weighing. This suggests that a study of stakeholder practices is directly linked to the identification of the major issues in the implementation of agricultural marketing information systems.

Second, Bourdieu (1990, pp.107-108) suggests that habitus is often “objectively adjusted” to match the requirements of the field. However, this adjustment according to Bourdieu is “a sort of ontological complicity, a subconscious and pre-reflexive fit”. Thus the emphasis of Bourdieu is on the “complicity” between the habitus and fields of struggle. This complicity is reflected in the practices of stakeholders as well as their dispositions. The case of the yard presents a situation in which multiple stakeholders, with conflicting interests, interact with each other. The farmers want to sell their commodity at the highest possible price. The traders want to buy cheaply from the farmers. Traders may dictate their prices through cartel formation. In response, the farmers may collectively use power practices such as agitations. This suggests that if there were no conflicting interests, the true propensity of stakeholders may be to cooperate. This convinced me that dispositions and practices might be useful concepts with which to understand the major issues that impact IS implementation in developing countries. Moreover, IS studies have suggested that interactions between practices, especially at their boundary, can have a decisive impact on organisational growth and competence (Levina & Vaast, 2005).

3.3 Initial theoretical framework
My theoretical framework, based on the Practice – Habitus framework of Bourdieu (Bourdieu, 1977; Harker, 1990), is presented below as Figure 3-2. The ovals and rectangles represent the conceptual elements in this figure, of which the ovals are representative of the structural factors, while rectangles are the explicit elements. In this framework, I see context as the principal source that impacts the practices and dispositions of stakeholders. The bi-directional arrows of context suggest that it shapes and is shaped by practices and habitus. The two arrows pointing inward to disposition indicate its link to subjective and socio-cultural influences. The outward arrow from habitus to disposition indicates that dispositions are reflective of habitus of stakeholders.
The model suggests that a first-hand understanding of the social phenomenon can be obtained through the study of two conceptual elements namely the *practices* of the stakeholders and the *disposition* of the stakeholders.

Considering that the yards have a long history (Singh, 2007), it is fair to assume that each stakeholder group uses certain *practices* for achieving their interest. It will be interesting to study the relationship between practices and *disposition*, especially the physical disposition of stakeholders, as it provides first-hand information about the stakeholder behaviour.

In this chapter, I have presented an initial theoretical framework that will be used later to understand and explain my findings. Equipped with the theoretical tools presented in this chapter, I now present my research methodology in chapter four.
CHAPTER 4 - RESEARCH METHODOLOGY

4.1 Choice of qualitative research

In this chapter, I present my philosophical assumptions and the reasons for choosing the methodology. While describing my methodology, I follow the distinction, proposed by (Doolin, 1998), between the terms ‘methodology’ and ‘method’. The former largely referring to the philosophical assumptions, while the latter referring to the data collection methods.

In this research project, I was intending to identify the major issues that impact on the implementation of AMIS in developing countries. This follows on from earlier studies of information systems implementation in developing countries (for example, Bhatnagar, 2007; Heeks, 2002; Krishna & Walsham, 2005; Kumar, et al., 1999). Identification of the major issues requires an inductive approach. A qualitative approach was well suited for studying the research question as qualitative research does not require the fixation of variables a priori (Cavaye, 1996) and is well suited to study the role of context (Myers, 2009).

Prior to commencing this research project, I had been using quantitative research for about five years. However, often I concluded from my survey analysis that the context of rural people, especially in developing countries, is inseparable from their opinions and perceptions. Every time I came across a survey rating by a poor farmer on variables such as “the ease of technology used”, the image of the thinly clad Indian farmer would come before me. Indeed researchers have suggested that quantitative research generally, and surveys in particular, are unable to capture the socio-cultural influences on the constructs (Silverman, 1998). I always felt that there was more to the perceptions and experiences of farmers than what was presented in a data matrix. I felt that contextual factors cannot be merely a passing reference
in research writings because understanding the context was at the heart of IS implementation in developing countries.

After deciding that my research approach will be qualitative, I decided to follow the guidelines presented by Myers (2009) who presents the model of qualitative research design. The model proposed by Myers (2009) is presented below as Figure 4-1.

![Figure 4-1: Model of Qualitative Research Design](source: Myers, 2009)

4.2 **Philosophical assumptions**

The information systems in developing countries (ISDC) implementation space can be delineated along various vectors that represent the implementations issues. Past researchers have identified such vectors, for example, in terms of technological-cultural misfit,
stakeholder issues, infrastructural issues, etc. (Avgerou, 2008; Bhatnagar, 2007; Bhatnagar & Singh, 2010; Heeks, 2002; Heeks, 2003; Madon, et al., 2007; Vaidya, et al., 2011b; Walsham & Sahay, 2006). Ontologically, I imagine that underlying these vectors are the majors issues of IS implementation. Figure 4-2 below presents a diagrammatic representation of my view of reality with respect to ISDC implementation:

![Diagram of ISDC Implementation Space](image-url)
Knowledge about these issues can be obtained by studying the *stakeholder practices* and their *dispositions*. In understanding these *practices* and *dispositions*, I may take an objective or a subjective view of reality. This separation can be bridged by reflecting on my own pattern of thought vis-à-vis the patterns of the stakeholders. This is explained by (Jenkins, 1992) as follows:

“By objectifying the position of the social scientist as a competent actor in his/her social world(s), as well as the position of the research subjects, it is possible to place both observer and observed within the same epistemological frame”.

(Jenkins, 1992 p. 51)

This can be attained through a *critical* form of inquiry as it is based on the fundamental notion of *critiquing* the status quo. I also follow a critical approach because of its emphasis on *transformation* (Myers & Klein, 2011). I use the six principle proposed by Myers and Klein (2011) for conducting the critical research study. Apart from these, I also follow the *principle of contextualisation* proposed by Klein and Myers (Klein & Myers, 1999). This is based on the fact that, at the *insight stage* of critical research, the principles proposed by them can be applied to critical research (McGrath 2005 in Myers & Klein, 2011 p. 23). Table 4-1 below presents these principles and their application in this research.
<table>
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<tr>
<td>The principle of using core concepts from critical social theorists</td>
<td>“Therefore, this principle suggests that critical researchers should organize their data collection and analysis around the core concepts and ideas from one or more critical social theorists.” (Myers &amp; Klein, 2011 p. 26)</td>
<td>Organise the data collection so as to understand the stakeholder practices and their dispositions i.e., based on the works of (Bourdieu, 1977).</td>
</tr>
<tr>
<td>The principle of taking a value position</td>
<td>“We acknowledge that the three critical theorists we have focused on in this paper base their values on secular Western culture; however, there are other possible value positions for a critical research project.” (Myers &amp; Klein, 2011 p. 26)</td>
<td>Compare the practices of stakeholders against the values of justice, democracy, human rights and fairness (Myers &amp; Klein, 2011).</td>
</tr>
<tr>
<td>The principle of revealing and challenging prevailing beliefs and social practices</td>
<td>“Rather than simply describing current beliefs and social practices, this principle builds on the first two to challenge prevailing assumptions, beliefs, values, and practices that are often taken for granted.” (Myers &amp; Klein, 2011 pp. 26-27)</td>
<td>Critical reflections on data sections to understand the values associated with stakeholder practices.</td>
</tr>
<tr>
<td>The principle of individual emancipation</td>
<td>“The principle of emancipation requires that the researcher assume a value stance that potentially takes issue with some of the human conditions or practices in the domain being investigated. These practices may be in some sense unjust or harmful or at least unfair for some subgroup.” (Myers &amp; Klein, 2011 p. 27)</td>
<td>Highlight the unfair practices in public forums such as lead ISDC conferences.</td>
</tr>
<tr>
<td>The principle of improvements in society</td>
<td>“Building on the previous principle, this principle suggests that improvements may be possible, not just at an individual level, but in society as a whole.” (Myers &amp; Klein, 2011 p. 27)</td>
<td>Highlight the practices as above and also discuss the research findings in both personal and public settings.</td>
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### Principle

<table>
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<tr>
<td>The principle of improvements in social theories</td>
<td>“This principle is concerned with the growth and improvement of theoretical knowledge. Although principle one suggests that critical researchers should organize their data collection and analysis around the core concepts and ideas from one or more critical social theorists, this does not mean that these concepts should remain unchallenged or that new ones might not emerge.” (Myers &amp; Klein, 2011 p. 28)</td>
<td>Critique the concepts of <em>practice</em> and <em>habitus</em> and compare these concepts with empirical results.</td>
</tr>
<tr>
<td>The principle of contextualisation</td>
<td>&quot;Various contexts can be explored (e.g., those associated with the informants or the researchers), the choice largely depending upon the audience and the story the author wants to tell.” (Klein &amp; Myers, 1999 p. 73)</td>
<td>Farmers are the central beneficiary of the IS and hence understanding their context should be the focus.</td>
</tr>
</tbody>
</table>

**Table 4-1: Research Tasks based on Myers & Klein, (2011), Klein & Myers, (1999)**
It is also essential to spell, the philosophical assumptions not only about the overall research approach, but also about the theoretical contributions of the research. Following the discussion by Fook (2002), my research seeks to make theoretical contributions of idiographic nature.

In the following section, I describe my research methods. Doolin (1998) suggests that the term ‘research method’ is suggestive of the data collection methods used by researchers. Following this I present a discussion on the suitability of data collection methods in light of my philosophical assumptions.

4.3 Research method

Qualitative researchers have suggested that a case study method may be chosen when the phenomenon to be studied cannot be studied in isolation of the context (Diaz Andrade, 2009; Creswell et al., 2007). Cavaye (1996) has identified characteristics that delineate the case method from other research methods. First, the case method does not require the variables or constructs to be explicitly “controlled or manipulated”. Second the phenomenon is studied in the totality of its context. Third, the study is undertaken at one or more sites, and qualitative techniques are used for data collection and analysis. These features of case study are in line with my philosophical assumptions.

Qualitative case studies can be single instrumental, multiple or intrinsic case study (Creswell et al., 2007). My study corresponds to the single instrumental case study type.

4.4 Single case study

In order to understand the issues in implementation of agricultural marketing information systems in developing countries, I chose to undertake a single case study of the Madhya Pradesh Agricultural Marketing Board. Single case studies allow in-depth understanding of
Chapter 4 – Research Methodology

phenomena (Cavaye, 1996; Walsham, 1995) and can be robust tool for generalisations (Diaz Andrade, 2009; Lee & Baskerville, 2003; Walsham, 1995; Walsham, 2006). Darke and Shanks (1997) mention that single case studies are suited in situations when a case is an “extreme or unique case”. The case of the Madhya Pradesh Agricultural Marketing Board was unique as it was the first initiative in India to streamline the highly complex agricultural marketing efforts of the government.

Authors have pointed out various limitations of case research such as lack of statistical generalizability and lack of control over the independent variables (Cavaye, 1996). The limitation with regard to the notion of statistical generalizability can be discarded by following the discussion by Lee and Baskerville who present various types of generalizability (Lee & Baskerville, 2003). ‘Control of the independent variables’ was not desired as I was following an indicative approach.

An important aspect of case study relates to the utility of a case study. According to Darke and Shanks (1997) a researcher may undertake a case study with three objectives; detailed description of a phenomenon (Cavaye, 1996), develop a theory and testing a theory. In the current research, a case study provides an excellent opportunity to provide a detailed description of stakeholder practices in IS implementation. After having decided that a single case study would suffice, the next task was to choose the appropriate data collection methods.

4.5 Data collection methods

ISDC researchers have suggested that identification of stakeholder is in itself a major challenge in stakeholder based studies and I use the importance-influence influence criterion for the identification of primary stakeholder (Bailur, 2007). Various yard based studies have suggested that farmers, traders and government officers are the important stakeholders in the yards (Meenakshi & Banerji, 2005). Of these traders are the most influential stakeholder
group (Goyal, 2010; Molony, 2008). Research studies have also shows that the role of private partner i.e. private vendors implementing the information system is critical to the successful implementation of ICT projects (Best & Kumar, 2008; Cecchini & Raina, 2004). Following this, the primary stakeholders include farmers, traders, government officers and private partners.

Nandhakumar and Jones (1997) present a choice of various data collection methods arranged in the order of engagement with the research subjects. Interview and passive observations are at the middle of this arrangement and provide a balanced level of involvement. Moreover, interviews aim at acquiring “full and detailed account of” experiences of the informants about the phenomenon of interest (Polkinghorne, 2005). This characteristic of interview coincided well with my research objective of understanding the major issues in IS implementation. Probing, coaxing and empathy are three requirements in the interviewer that help obtaining rich description in an interview (Owens, 2007). Given that I came from a similar society as the informants and could communicate with them in their own language/ dialect, I felt confident about using these in the interview process. Thus, semi-structured interviews, observations and field visits were my choice for data collection. I chose semi structured interviews as structured interviews are suitable for positivist studies (DiCicco-Bloom & Crabtree, 2006).

A researcher may collect data either as an “outside researcher” or an “involved researcher”, and both these approaches have their advantages and disadvantages (Walsham, 2006). In the present research, I undertook an approach of outside researcher.

Interviews may have an impact on the psychological wellbeing of the informants (Brinkmann & Kvale, 2005), and hence it is important to prescribe an ethical conduct of conduct before the interviews are conducted. Brinkmann and Kvale (2005) discuss the micro and macro level
ethics of the interview process. The micro level ethics relate to ethical conduct in the process of interview. The macro level ethics relate to the impacts that the interview findings may have on the informants. For the micro level ethics, the first step was to obtain ethics approval from the University of Auckland. The ethics approval for the data collection was obtained from the University of Auckland Human Participants Ethics Committee in November 2008 (See Appendix One). The approval was obtained subject to the condition that any identity information of farmers will not be documented. For the macro level ethics, I am keen to present the research findings in the ICT4D research domain. In the same consideration, these concerns were included in two lead conference proceedings (Vaidya et al., 2011a; Vaidya et al., 2011b).

With regard to the interview process itself, I rely on the guidelines suggested by various authors. According to Owens (2007), while framing the interview questions, care should be taken to avoid lead and closed questions. Following this, I developed the themes to be discussed with the informants and then worded these themes in the form of open-ended questions. According to Cohn and Lyons (2003) the choice of interview site has an impact on the power relationship in the interview process and impacts the comfort levels of the researcher and informants. Following this, I discussed with the stakeholders their choice of interview site and accordingly planned my interview sites. The farmers insisted that interviews should be undertaken at the actual site of trade so that I may also observe their drudgeries in the trading process. The government officers were comfortable in being interviewed at their offices so that they could also oversee their day-to-day operations. The front line private partner employees were interviewed in the yard and their back offices, and the senior employees were interviewed at their head offices. Two traders suggested interviewing at the yard, while a third preferred the interview at the village.
Polkinghorne (2005) suggests that a single interview may not be sufficient for obtaining a rich description of the respondent’s experience. Following this wherever it was possible, I ensured that multiple interviews were conducted with the same respondents. For example, I interviewed farmers first at the yards and then again at their chosen location. Similarly, I interviewed some of the key government officers at multiple occasions over an extended period. Dicicco-Bloom and Crabtree (2006) suggest that the tape-recorded conversation cannot be denied and hence may be problematic for the informants. The authors suggest that such conversation should be destroyed after the process of transcription. This guideline was incorporated in the ethics application and was accordingly conveyed to the informants. The interviews were conducted after written consents were obtained from the participants. Interviews lasted from thirty minutes to two hours duration.

After deciding about the conceptual issues for the interview, the next question was to decide on their number. Researchers have suggested that ‘sampling’ is an incorrect term, used in qualitative research and the term ‘selection’ is more suited (Payne & Williams, 2005; Polkinghorne, 2005). The objective of ‘selection’ is to obtain a complete picture of the experience of the informants and as soon as saturation happens in this respect, further interviewing can be stopped (Polkinghorne, 2005; Thompson & Walker, 1998). Following this, I decided to stop interviews when saturation was achieved in the discussion themes. In order to capture different perspectives, I chose experience as the criterion. I chose to talk to young as well as middle aged farmers. Within the organisational hierarchy, I chose to interview front line operators, middle managers and senior officers. Initially I decided to interview around two participants from each category. However, it was soon felt that more participants should be interviewed from government officers, private partners and farmers. Table 4-2 below presents the number of interviews and observations.
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<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>Interviews</th>
<th>Observations</th>
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</thead>
<tbody>
<tr>
<td>Farmers</td>
<td>7</td>
<td>Yes</td>
</tr>
<tr>
<td>Government Officers</td>
<td>8</td>
<td>Yes</td>
</tr>
<tr>
<td>Private Partners</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>Traders</td>
<td>3</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 4-2: Stakeholder-wise data collection tools

The Auckland University Human Participants Ethics Committee requirement was that I should not document any information about the identity of the farmers as this may put them at risk. Furthermore, government officers had revealed certain sensitive information that may have an adverse impact on their career and job security. Thus, information about the four interview sites has not been included in this thesis.

After obtaining the ethics approval, I undertook the first field visit between January 2009 and March 2009. It was an exhaustive field visit in which I visited farmers’ villages, various yards and interviewed the informants in yards, villages and their respective offices. I made daily field visits to the yards and accompanied the government officers in the yards, closely observing their day to day work. As a general routine, I reached the yards in the morning hours and accompanied either the government officer or the partner employees, to the yard processes. Upon return to the back office, I would discuss my observations and try to understand their point of view. Sometime in the afternoon, I would independently visit the yards, and would talk to the farmers and traders in the yard. Based on discussions with farmers, I undertook my field visits to their villages of the farmers. Audio recordings of the interviews, field notes and photographs were taken during this field visit. The second field visit was undertaken between January and March 2010 and involved field visits to the yards.
The third field visit was undertaken in January – February 2012 with the objective of understanding the stakeholders’ view on the results of the research. With the first two field visits and the data captured I concluded that sufficient data was captured so as to commence the analysis.

4.6 Data analysis method

Myers (2009) elaborates on the various qualitative data analysis techniques available to a researcher. There are simpler methods such as coding and memo writing and also there are methodical approaches such as grounded theory. Myers (2009) mentions that the interest of the researcher is perhaps the most critical criterion to adopt an analysis method. I was inclined to the use of either grounded theory or thematic analysis.

I finally chose thematic analysis as this was the one most closely related to my epistemological position. First, thematic analysis is more flexible and can be done either inductively or deductively. According to Braun and Clarke (2006), it has not been adequately recognised that thematic analysis is independent of the epistemological and theoretical stance of the researcher. Furthermore thematic analysis allows the coding to be done in a semantic manner or a latent way.

4.7 Thematic analysis process

Various authors have discussed thematic analysis (Braun & Clarke, 2006; Fereday & Muir-Cochrane 2006; Floersch et al., 2010; Fook, 2002). At a macro level, I followed the guidelines proposed by Braun and Clarke (2006) who discuss the different phases of thematic analysis. At a micro level, especially for scaling up the themes from the initial codes, I followed the guidelines proposed by Boeije (2002).
According to Braun & Clarke (2006), the first step in thematic analysis is to familiarise with the dataset. Transcription is a means to this. After coming back from the field visit in March 2009, I started with the transcription of interviews. The primary data comprised of field interviews and field notes. When I started with the transcription, in all, there were 51 recorded interview files that required transcription. This was because multiple interviews were undertaken with the same respondent. I took transcription as an opportunity to familiarise myself with the dataset. DiCicco-Bloom and Crabtree (2006) suggest a re-reading of the transcribed data along with the audio. This was an exhaustive exercise, but it fulfilled the objective of data familiarisation, remarkably.

The next step was to generate the initial codes and scale these up to have the themes. For doing this, I followed the guidelines proposed by Boeije (2002). Following these, I first generated a summary for each interview. I had conducted twenty three interviews. I read each of the interview transcripts along with the field observations and developed an interview summary. Next, I started with the coding by comparisons with-in the interviews. According to Buetow (2010) codes can be generated on the basis of their reflection about the real world problems. Following this I generated initial codes that reflected the real world concerns of the stakeholders. For example, if a government officer mentioned “the working for us was too hectic...” I generated an initial code “overburdened employee”. Next, I compared the initial codes for each interview with the overall interview summary and accordingly refined the interview summary. This ensured a consistency between the codes and the interview summary. I was thus having twenty three refined interview summaries. In the next step, I looked at the interview summaries within each group. For example, the summarised farmer interviews were all compared with each other to have an overarching theme relationship for the farmer group. Through this comparison, I was able to have a construct relationship for each stakeholder group namely farmer, trader, government officer and private partner. In the
final step, I compared these four theme relationships amongst themselves. For the purpose of illustration, Tables 4-3, 4-4 and Figure 4-3 present the entire process of constant comparison for one stakeholder group namely the farmers. Appendix two presents the constant comparative method (CCM) for all the stakeholders and also presents information about the interview sources and their coding coverage.

When I had finished this process of thematic analysis, I then decided to compare and analyse some of the themes that emerged in light of Bourdieu’s theory of practice. I believed that Bourdieu’s theory of practice, as a meta-theory, is complementary to the themes that I discovered, and helps to put them into a larger context.
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<thead>
<tr>
<th>Interview</th>
<th>Summary</th>
<th>Main Codes</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Farmers and traders are both deceptive. Farmers do quality manipulations while traders form cartels. The context of farmers is marked by uncertainty and exploitation and farmers are severely caught in commodity rate fluctuations and vicious cycle of interest rates.</td>
<td>business strategies of traders, commodity rate fluctuations result in losses to farmers, farmers are caught in the vicious cycle of interest, farmers are not trusted because they do quality manipulations, stocking is important for profit making in agriculture, theft is common in villages, traders are dishonest, traders form cartels, traders have business acumen, urgent cash needs force farmers to go to the yards</td>
</tr>
<tr>
<td>2</td>
<td>Unregistered deals are common between the farmers and traders.</td>
<td>unregistered deals are common between farmers and industries, social respect in village is measured by land ownership, key information requirement of large farmers is about the production of commodities in other areas</td>
</tr>
<tr>
<td>3</td>
<td>Yards are full of problems and there are no basic facilities in the yards. Everyone in the yard exploits the farmers. The traders make late payments and the labourers exercise hegemony.</td>
<td>farmers face lots of problem in yards, labourers do hegemony in yards over the farmers, late payment is a major problem in the yards, selling in yards a compulsion for the farmers, there are no basic facilities in the yards, traders and labourers join together to exploit the farmers, traders under-weigh the farmer commodities</td>
</tr>
<tr>
<td>4</td>
<td>Commission agents and traders have historically exploited the farmers. Yards are prone to corruption. There is no cleanliness in the yards. Agriculture is a labour intensive activity.</td>
<td>agriculture is a labour intensive activity, commission agents have historically exploited the farmers, corruption in yards, description of yard processes, expenses of farmers, farmers cannot sell their commodities without commission agents, lack of cleanliness in yards, traders dominate the yard trade</td>
</tr>
<tr>
<td>5</td>
<td>Agriculture is a physically strenuous activity, yet the rewards of agriculture are not certain. Agriculture does not bring security in the life of farmers.</td>
<td>Agriculture is an unsecured occupation</td>
</tr>
<tr>
<td>6</td>
<td>Farmers face a lot of difficulty in reaching the yards. It is strenuous for them to reach to the yards.</td>
<td>Approaching yards is a strenuous activity.</td>
</tr>
<tr>
<td>7</td>
<td>Farmers are exploited by traders and labourers. Agriculture is a demanding activity and yet the rewards are not assured.</td>
<td>Traders are dishonest, agriculture is an unplanned activity in India for the farmers, traders do not return commodity bags, it is more profitable for farmers to sell their land than doing agriculture</td>
</tr>
</tbody>
</table>

Table 4-3: Interview summary and initial codes for farmers
Farmers perceive both farmers and traders as deceptive. Farmers do quality manipulations while traders form cartels. Unregistered deals are common between the farmers and traders. Yards are prone to corruption.

The context of farmers is marked by uncertainty and exploitation and farmers are severely caught in commodity rate fluctuations and vicious cycle of interest rates.

| Everyone in the yard exploits the farmers. The traders make late payments and the labourers exercise hegemony. Commission agents and traders have historically exploited the farmers. Farmers are exploited by traders and labourers. The processes in the yard are not transparent and are dominated by traders. The context of farmers is marked by exploitation and farmers are severely caught in commodity rate fluctuations and vicious cycle of interest rates. |
| Agriculture is a labour intensive activity. Agriculture is a physically strenuous activity, yet the rewards of agriculture are not certain. Agriculture does not bring security in the life of farmers. Farmers face a lot of difficulty in reaching the yards. It is strenuous for them to reach the yards. Agriculture is a demanding activity and yet the rewards are not assured. |
| Yards are full of problems and there are no basic facilities in the yards. There is no cleanliness in the yards. |

Table 4-4: Major themes for farmers
Agriculture is an uncertain occupation i.e., where the rewards of one’s efforts are not guaranteed.

Yards lack basic infrastructure.

Farmers have a high sense of exploitation by nearly all segments of society (particularly government and traders).

Uncertainty and exploitation shapes the behavior of farmers and farmers are not willing to take a “trust initiative” on other stakeholders (traders and government officers).

Lack of care.

Figure 4-3: Initial thematic relationship for farmers.
4.8 Plausibility

Walsham (1993) suggests “plausibility and cogency” of reasoning is indicative of the validity of results in qualitative research. I follow a two pronged approach to make my results plausible. At a micro level, i.e. at the stage of coding and theme development, I triangulate my conclusions across the stakeholder groups. For example, if farmers are blamed for quality manipulations, I triangulate the statements of farmers’ quality manipulations with the statements of other stakeholders. I compare the statements of private partners, government officers and traders to assess whether farmers do quality manipulation or is it a mere allegation posed by a stakeholder group. The key question I address in such a triangulation is whether my conclusions, such as farmers manipulate their commodity quality, are correct. This ensured the correctness of my conclusions at the procedural level and ensured that I was not exaggerating or biasing the participants’ records.

Furthermore, in order to establish that my conclusions were consistent with those of the informants, I started meeting the stakeholders groups to discuss my findings with them. In 2012, I met government officers and farmers with whom I had undertaken interview sessions. The government officers told me that the project had been abandoned and that the entire equipment of the private partners had been seized at their respective yards. The private partners had stopped the data entry and the government officers who had become accustomed to computerisation, were employing some private individuals to do the data entry. Following this new development, I decided to discuss my findings with the government officers. I undertook meetings with the government officers whom I had interviewed earlier, and I explained my findings to them. Both government officers and farmers agreed to my conclusions. This further indicated that the research results were correct at the levels of code, theme and informant level.
However, apart from using triangulation and participant corroboration, I also wanted to ensure that the results are acceptable in the wider research community. This ensured that my research results had certain distinctness in them. Thus to establish the plausibility at a macro level, I started submitting research papers in the ICT4D conferences. My papers were included in three lead conferences of the Working Groups of International Federation for Information Processing (IFIP) namely IFIP 9.4, IFIP 8.6 and IFIP World Technology Forum.

After discussing my research methodology, I now proceed to discuss the case study of the Madhya Pradesh Agricultural Marketing Board.
CHAPTER 5 – CASE DESCRIPTION

"We must conceive it, then, not as a nation, like Egypt, Babylonia, or England, but as a continent as populous and polyglot as Europe, and almost as varied in climate and race, in literature, philosophy and art."

Description of India by Will Durant (1935, p. 393)

5.1 The Context

The state of Madhya Pradesh is located centrally in the Indian union and is also called the ‘heart of India’. The total population of the state is over seventy million and the area of the state is 0.3 million square kilometres. In terms of population and area, the state is similar to Italy.

Administratively, the state has fifty districts. Each district is further broken into sub districts, towns, blocks and villages. There are slightly over fifty thousand villages in the state where the primary occupation of people is agriculture (GoI, 2011). The representation of the people in the state is through the democratic institutions that start at village level and continue till the level of the state parliament (Buch, 2012). At the village level, there are around 23000 elected village bodies commonly called the Gram Panchayat3 (Paul, 2006). The apex elected body is the state parliament which has 230 seats. At the level of the central government, the state is represented in the parliament through the elected 29 members of the parliament (NIC, 2012b). The overall literacy rate of the state is slightly above seventy per cent. Within the urban and the rural areas, the literacy rates are 84 and 65 per cent respectively (GoI, 2011). Figure 5-1 below presents a map of India indicating the location of the state.

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3 The word Gram translates into English as ‘village’ and panchayat is the village level democratic institution.
Figure 5-1: Map showing the central state of Madhya Pradesh

Source: (Gol, 2011)
Chapter 5 – Case Description

The state comprises of eleven agro climatic zones ranging from plains and plateaus to hills and valleys (SPC, 2011). These zones have a marked difference in physical and climatic features (Wani et al., 2010).

The cultural diversity of the state is reflected in the various dialects of the Hindi language spoken across the state. The state is contiguous to five other states, some of which speak entirely different languages. The difference of the languages, contiguity with other states and the physical geography has resulted in various different cultural regions of the state. Primarily these regions are Malwa, Nimar, Bundelkhand, Baghelkhand, Mahakaushal and Chambal Valley. Each of these regions has its own cultural history, and there are distinct variations in the dialects of Hindi language (Mukhopadhyay, 2007; Varghese et al., 2009; Vunnamatla et al., 2012). The tribal population of the state is another contributor to the cultural diversity. The state is home to the largest tribal population of India. Eight distinct tribes are found in the state, each having its own language (ENVIS, 2008). In terms of the religious diversity, Hinduism is the religion of the majority and is practiced by about ninety per cent of the people. The other religions being practised include Christianity, Islam, Sikhism, Jainism and Buddhism (NIC, 2012a).

5.2 Agriculture in Madhya Pradesh

Like the rest of India, agriculture is the principal source of livelihood in Madhya Pradesh. Over seventy per cent of the state’s population is classified as rural. The labour force of the state is estimated to be slightly above 25 million people, out of which nearly seventy per cent depends on agriculture. Of the total area of the state, nearly seventy five per cent is under cultivation. The average size of the land holdings is slightly over two hectares. Agriculture is largely rain fed, and the primary sources of irrigation are wells, tube wells, canals and tanks. In terms of the irrigated area occupied by the crops, wheat is a dominating crop. More than
seventy per cent of the irrigated area is occupied by the wheat crop followed by chickpea and cereals (NIC, 2012a).

The state of Madhya Pradesh is a leading producer of various agricultural commodities in India. The state occupies the top position in India in the production of soybean, gram, oilseeds, pulses, linseed and maize. The state produces more than fifty per cent of the soybean, more than 40 per cent of the chickpeas and more than 20 per cent of the country’s pulses. It is the second largest producer of the oilseeds, sorghum, red lentils and the third largest producer of maize and red gram. Overall the state is the fifth largest producer of all the cereals and food grains of the country. Apart from the production of food grains, the state also produces certain significant spices, fruits and vegetables. In spices, the prominent include garlic, coriander, chillies, turmeric and ginger. The state is the second largest producer of garlic and third largest producer of coriander in India. Amongst the fruits, the prominent include banana, oranges, guava, mango, and papaya (MANDIBOARD, 2012; NHM, 2005).

The state has several institutions that are involved in providing research and support services related to agriculture. Amongst the research centres, the state has thirty six district agriculture science centres commonly called *Krishi Vigyan Kendra*\(^4\). Also, there are nineteen district agriculture extension and training centres. In terms of the financial institutions, there are various commercial banks, district cooperative banks, land development banks and rural banks which provide credit facilities to the farmers.

Apart from the research and support institutions, there is one government organisation that is entrusted with the responsibility of providing marketing support to farmers. This organisation

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\(^4\) The Hindi language term for the state owned agriculture science centers in the state.
is the market, locally known as the *Mandi*\(^5\) referring to the market yard. The role of this organisation is crucial, as it is through its intermediation that the farm produce reaches the consumers. Farmers of the state have various channels to sell their agricultural commodities. For example, they may choose to sell the commodities to the local traders, various cooperative procurement organisations or sell the commodities at the yards through the process of auction. However, the auction at the yard provides an opportunity to avail better prices as it is mandatory to start the auction at a minimum support price (MSP) which is recommended by the Indian Commission on Agricultural Costs and Prices (Meenakshi and Banerji, 2005).

The farmers harvest their commodities and pack these in jute or plastic bags. These are then taken to the yards where the farm produce can be displayed to many traders. Here, the traders assess the quality of the produce and bid a price. The market is managed and operated by the state government. Government officers at the yard are entrusted with the responsibility of conducting the auctions, and act as a third party between the farmers and traders. These yards are controlled by the state government department called Madhya Pradesh Agricultural Marketing Board or commonly called Mandi Board (Vaidya, 2009; Vaidya et al., 2011b).

### 5.3 Madhya Pradesh State Agricultural Marketing Board

The exploitation of the farmers and the need to regulate the commodity prices resulted in the creation of various para-state organizations called marketing boards after World War II (Abbott, 1967; Pokhrel & Thapa, 2007). Perhaps the earliest definition of an agricultural marketing board comes from Abbott (1967) who defines them as “public bodies set up by government action and delegated legal powers of compulsion over producers and handlers of primary or processed agricultural products”. There is a long history of involvement of

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\(^5\) *Mandi* is the Hindi translation of the English word ‘market yard’. Thus the terms ‘yard’ and ‘mandi’ are used interchangeably.
middlemen in selling the farmers’ commodity to the traders who eventually make these available to consumers.

In order to prevent the exploitation of the farmers by the middlemen, to provide a marketing platform to the farmers and to regulate the agricultural market in the state, The Indian government formulated the State Agricultural Produce Marketing Committee Act. The act prescribes the creation of market yards across various states. These yards are to be operated by yard committees, and the yard committees are controlled by a para-state organisation called the State Agricultural Marketing Board. The act has been adopted by various states since the independence of India (Shilpi and Umali-Deininger, 2008). Based on the secondary data as well as from my discussions with the informants, I was able to draw some important timelines on the historical evolution of the yards. These are presented in this chapter as they put the case in its historical context.

5.3.1 1965 – 1972 Formation of the agricultural marketing board

Before the creation of the State Agricultural Marketing Board, there were some earlier state efforts to regulate agricultural markets in India. The first of the regulatory laws was enacted during the British times and was referred to as the Berar Cotton and Grain Market law of 1897. This law was replaced by the Bombay Cotton Market Acts of 1927. The act stipulated the development of regulated markets for cotton controlled by a committee of cotton growers. The act specified the establishment of certain open yards where un-baled cotton of the farmers could be marketed (Singh, 2007). Based on the Bombay Act of 1927, the government of Madhya Pradesh in 1952 formulated the Madhya Bharat Agriculture Produce Market’s Act. The state eventually saw some reorganization of its territories in 1956, and this created a situation whereby multiple acts related to agriculture market regulation were operating in the state. To remove this discrepancy, the Madhya Pradesh Agricultural Markets Act was formulated in 1960. This act was later revised as the Madhya Pradesh Krishi Upaj
Adhinniyam (1972)\textsuperscript{6} which stipulated the creation of the Madhya Pradesh State Agricultural Marketing Board. Following this stipulation the State Agricultural Marketing Board was formed on the recommendation of the National Agricultural Commission. One government officer described this as follows:

“See the board came into existence in 1972 with the Mandi Act. Before the 1972 act, there was 1965 act and during that time the yards used to fall under the Trade Department (Udyog\textsuperscript{7} Department). Then in 1972, the yards came under the agriculture department. The set up in the agriculture department was different from the trade department. Yards have been in India for quite a long time. Even when India was not independent, this market was functioning under the princely states. The princely states had established the yards at some of the important locations, and the requirement of licenses by the traders was also mandatory at that time. Prior to 1972, the yards were not regulated by any board”.

\textbf{5.3.2 1981 – 1984 Major recruitment drive of the board}

Discussions with a government officer indicated that from 1972 till 1981 there was no recruitment done by the board. The manpower in the yards was the same as it was before 1972 or was recruited on a temporary basis at the yard level. The first centralised board level recruitment drive was undertaken in 1981 followed by another in 1984. It seems that three employee cadres were present in the yard those already working at the yard, those recruited in 1981-84 and those absorbed in the board through deputation. A government officer explained this as follows:

“Before 1972, the yards were recruiting their own employees as they were autonomous bodies. Eventually the mandi board was constituted in 1972. So then

\textsuperscript{6} ‘Madhya Pradesh Krishi Upaj Adhinniyam’ is a Hindi term which translates in English as ‘Madhya Pradesh Agricultural Commodity Act’. In the yards this is commonly called as the Mandi Act.

\textsuperscript{7} ‘Udyog’ is a Hindi word which in its use here means ‘Trade’. 
there were two kinds of staff - the staff of the yard committees and the staff of the board. The state government decided to depute some officers from other departments.

So another cadre called the MP State Agricultural Marketing Services (MPSAMS) was formed. Under MPSAMA, some officers from other department were deputed in the mandi board so that the board could perform well. The inspectors were deputed under the MPSAMS. At that time also the board had not done proper recruitments, it had done absorption. In fact, it had run a campaign of absorptions in the newly constituted board. In 1981, for the first time the mandi board itself decided to recruit.

Since the board was autonomous i.e., a semi government enterprise, the recruitment could not happen through the state public service commission (PSC). The board itself conducted its own tests and ran its first recruitment drive. The second recruitment was done in 1984. For this second recruitment, the board had given the contract to another organisation called XXXX. This organisation XXXX was formed by the retired Indian Administrative Services (IAS) officers. So XXXX organised and conducted the entire recruitment process. So there were three cadres of employees, those of the local yard committees, those of the board and the inspectors absorbed through the MPSAMS. There have been no recruitments in the board after 1984; I was recruited in the year XXXX”.

After 1984, there has been no recruitment in the yards at the board level, though yard committee level recruitment happened till as late as 1998 after which even these were stopped. A government officer explained this as follows:

“There have been recruitments after 1984 but at the local yard committee level. The committee level recruitments happened between till 1998”.

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8 XXXX and YYYY are the pseudo names/titles used for confidentiality purposes.
It also seems that there was political intervention in the yard level recruitments. A government officer described this as follows:

“I have served at yards since 1986. In those times, the jobs in yards were obtained by direct application. There used to be no exams, etc. I had applied, and I got the job. In those days, the political leaders used to get the jobs for the people. They used to get people admitted, and the secretary or the president will approve the job applications filed by the political leaders. In those days, no one knew what a yard was, and if we told anyone that we were working in the yards, they would think that we were working for the traders. That is how it was”.

5.3.3 1986 Banning of commission in some commodities

Yards have a history of commissioning. Discussions with the informants indicate that, by 1986, the exploitative practices of commission agents and traders came to the notice of the Board. The practice of commissioning was thus banned in some commodities in the yard. A government officer explained this as follows:

“In the initial days there used to be the mediators. There used to be mediators between farmers and traders till 1986. They used to do the auction on behalf of the farmers, and they used to get ten paisa per bag to auction the produce of the farmers. The trader as well as the farmers used to pay equally to these intermediaries”.

Another government employee who had field level experience with the system of commissioning described it as follows:

EMPLOYEE: “Earlier it used to be Adaat⁹ (commission agents) system. The farmer would take his commodity to the commission agent’s shop. He would unload it there. The commission agent would then sell this commodity to other traders, and collect the

⁹Adaat is the term used in the colloquial language to refer to commission agents.
money. From this, he would cut a commission of five per cent and give the remaining money to the farmer. The commission agent deposited the yard service charges. At that time, there used to be no auction”.

INTERVIEWER: “When was commission practice stopped?”

EMPLOYEE: I do not remember the exact year. I think this was around 1986. The commission agents had filed a case in the high court and taken stay\textsuperscript{10}. So commissioning was still going on here but was stopped eventually…”

5.3.4 1990 Initiatives for faster payment to farmers

It was around 1990 that there was concern on the board for payments to farmers. This related to the delay in the payments and also about assurance of the payments to farmers. A government officer mentioned this as follows:

“The policy makers decided that the payments should happen fast and in the best possible way. They also asked the traders to deposit some amount as a security through fixed deposits. So the traders started depositing an amount (for example rupees\textsuperscript{11} 100,000) as security. This provided assurance to the farmers. It was also decided that the payments be done within the mandi premise, earlier the payments to the farmers were done at the shops of the traders”.

5.3.5 1997 Formation of yard committees

It seems that prior to 1995 the yards were under the complete control of the government officers i.e., the agricultural department of the state government. The decision to constitute the yard committees was implemented after 1995. This can be concluded from the following statement of a government officer:

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\textsuperscript{10} ‘Stay’ is a colloquially used legal term that suggests ‘maintenance of status-quo’.

\textsuperscript{11} Rupee is the currency of India. 1 US $ is tentatively equal to 50 Indian rupees.
“I joined the XXXX yard in 1995 as Inspector…It was a yard full of middlemen…at that time there was not no elected body, and yards used to be under the officer posted by the government”.

The formation of the committees happened in 1997. This can be also be concluded from a government document that names the rule for the formation of the yard committees as the Madhya Pradesh Krishi Upaj Mandi (mandi samiti ka nirvachan)\textsuperscript{12}, 1997 (Gazette of MP, 2010).

5.3.6 1998 Integration of various human resource cadres

It was earlier discussed that there were three cadres of human resources that were working in the yards. These were those recruited by the yards locally, those absorbed from other government organisations and those recruited by the board’s own recruitment drive. After the constitution of the committees in 1997, the board integrated the employees at the yards with those recruited through its own recruitment drive. A government officer mentioned this as follows:

“it was decided later that these cadres should be merged in one, this happened in 1998. The secretary, assistant secretary, inspector, accountant, sub engineer and assistant sub inspectors were directly brought under the State Mandi Board Services. The temporary employees of the lower level such as driver, plumber, fitter, electrician, peon, clerk, etc., were all left under the mandi committees”.

5.3.7 2000 Uniform code for all the yards

Prior to the year 2000 all the yards were governed by different laws formulated by the yards. However in the year 2000, a uniform code was suggested for all the yards. Though this uniform code was not mandatory, the discussions with the officers indicate that it was

\textsuperscript{12} This translates as Madhya Pradesh Agricultural Commodity Yard (constitution of yard committee), 1997.
implemented in a manner that made it compulsory for the yards to adopt it. A government officer explained this as follows:

“Then in 2000 they suggested a model set of bylaws and asked every mandi to abide by it. Though it was not mandatory to abide by this model, the senior officers asked us to get it approved from the yard committees within three days. So indirectly we were told to adopt it, and there was no option”.

Thus, it seems that a uniform code was implemented before the year 2003 i.e., the year when the information systems project was initiated.

### 5.3.8 2004 Banning of commission in some more commodities

The system of commissioning was banned for the first time around 1986. This ban was limited only to the trade of grains; fruit and vegetable were still subject to commissioning. In 2004, the commissioning in garlic, which belonged to the category ‘fruit and vegetable’ in some yards, was also banned\(^\text{13}\). This can be concluded from the following statement of a government officer:

“Even in garlic the commission agents were charging their commission to the farmers till 2004. In 2004, this was also banned”.

### 5.4 Description of organisational structure

After presenting the history of the yards, I now present a description of the organisational structure. This description is based on both primary and secondary sources of data.

The current board, with its head-quarters at the state capital of Bhopal, was created in 1973. The board can be viewed as a three level organisation. The first level is comprised of the market yard, called Mandi where the farmers and traders meet, and the sale-purchase

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\(^\text{13}\) Discussions with farmers indicate that in certain vegetables, the commissioning was prevalent in 2010.
transactions take place. The second level is comprised of the regional offices, and the third level represents the head office of the board (MAPIT, 2006).

Each yard, depending upon the transactions or the commodities, may be further sub divided in sub yards (called sub mandis). These yards or mandis are managed by the yard committee which has representation from the traders, farmers and government.

5.4.1 Yard committees

The yards are governed by the yard committees. These committees are constituted by elected members comprised of the farmers’ and traders’ representatives. A government officer described this in detail as follows:

“There are over 230 yards in the state. Usually, in one tehsil\(^\text{14}\), there is one yard. In some cases when the tehsil is too large, there may be two yards in it. So each yard committee has an area of jurisdiction. From that area, there are 11 elected members. Ten of these represent the farmers while one represents the trader. Also, there is one elected President. These twelve people come through elections. Apart from these elected representatives, there are some nominated members in the committee. There is a nominated member of the weight certificatory\(^\text{15}\) and labourers, nominated by the president. There is one nominated member from the cooperative sector. Member of Parliament (MP) and Member of the Legislative Assembly (MLA) are also members. There is one member from the Bhoomi Vikas\(^\text{16}\) Bank and one from the government department such as the deputy director of agriculture or the state health officer. Also, there is one member from the district panchayat\(^\text{17}\). In all there are twenty members,

\(^{14}\)Tehsil is the administrative unit within a district. Each district is made up of various tehsils.

\(^{15}\) ‘Weight Certificatory’ is an individual authorized by the yard to certify the commodity weight.

\(^{16}\) Bhoomi Vikas Bank refers to a category of bank, dedicated to road development.

\(^{17}\) Panchayat is the village level democratic institution in India. Elections at village level are conducted for constitution of the panchayat. Some of these elected panchayat representatives constitute the district level panchayat.
twelve of these are elected while eight are nominated from various government departments. These twenty people constitute the yard committee. This committee is an autonomous body. It generates and spends its own revenue, and it oversees the management of the yard.”

5.4.2 Yard hierarchy
My discussions with the government officers indicated that day-to-day working of the yards is managed by the board employees. I was interested in understanding the hierarchy of the board employees at the yard. One government officer explained to me the yard hierarchy as follows:

“On top of the yard hierarchy is the yard secretary. He is from the state administrative services. Below the yard secretary, there are class C secretaries. The number of the class C secretaries varies across yards and depends on the number of sub yards. The C class secretaries are yard inspectors who are promoted as secretaries. The C class secretaries or the mandis inspectors either of these could also be in charge of some other section of the yard such as the establishment, stores, etc. Below these C class secretaries are the yard inspectors. Below the inspectors are the assistant inspectors. At the lowest level are some other posts such as of electricians, plumbers, sweepers, etc. They are not in the permanent posts but are employed on a temporary basis”.

5.4.3 Departments in yard
Within each yard, there may be various departments to cater to the different needs of the yards. A government officer described this as follows:

“There are three main sections in any state department. These are often called the wings or sections within a government department. So there is the establishment

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18 The administrative structure in India comprise of various categories of administrative officers. Most common of these are category A, B and C. A refers to the highest while C is the lowest.
section\textsuperscript{19}, accounts section and the store section. This is the structure or design of this state government. So in any yard you will find these three basic departments. Apart from these basic sections or departments, there are some sections specific to the yard. These are the tax paid certificate section, mandi revenue section, supervision section, etc.”

\textbf{5.4.4 The Mandi Board}

The yard committees are administered and monitored by the regional offices of the mandi board. There are seven regional offices in the state, and the head office of the board is in the state capital. A government officer described the structure of the board as follows:


“Yards are a subject of the state government, and all states have their own boards. In this state, the yards are autonomous bodies under the mandi board. This board is under the agricultural department of the state government and is an undertaking of the Government of MP. The board itself is an autonomous body governing the functioning of all the mandis. The mandi board is an advisory board that analyses the functioning of the yard committees. There are some rights that are also given to the mandi board. For example, the mandi board may reject a decision taken by the mandi committee. The board has a managing director, who is the chief executive officer of the mandi board. The president of the board is the state agriculture minister. In order to retain its control or exercise the guidelines of the Mandi Act, the board has absorbed certain posts of the yards such as the yard secretary, assistant secretary (C class Secretary), mandi inspector, accountant, sub engineer and mandi sub inspector. These are the posts of the mandi board. The salary of these employees is provided by the Mandi committee, but the appointing authority is the board. The guidelines and

\textsuperscript{19} ‘Establishment’ section is concerned with the maintenance of the human resource records in the state government departments/bodies.
instructions that these employees follow are of the mandi board and not of the committee. If, the mandi committee decides that I am not working properly and so I should be removed, then they cannot do this. We are not controlled by the committee. The logic behind this was that if I am not in control of the yard committee, then I could be impartial and will not accede to its misdeeds”.

At present, there are 489 mandis in the state. Of these, 239 are the main mandis while 250 are sub mandis. The mandi committees are administered by the regional offices which forms the second level of the organization. There are in all seven regional offices, in the state and, each is headed by a Deputy Director. Each regional office administers various mandis. For instance, the Bhopal regional offices administers the highest number i.e., forty seven mandis while the Rewa regional office administers the lowest number i.e., eighteen mandis. The regional offices are under the administration of the apex-body - the head office of the Mandi Board at the state capital of Bhopal which is headed by a Managing Director\textsuperscript{20}.

5.5 Process of trade transactions in mandi

In the following section, I provide an overview of the trade transactions in yards. The trade transactions are completed through various processes. Most important of these processes are auctioning, weighing of the commodity, payments to the farmers and depositing of the mandi fees. In sections below, I describe these processes, starting from the farmer’s entry to his exit. A copy of the documents that are generated during these processes is included as Appendix three.

At the outset, it is necessary to understand that administratively the jurisdiction of a mandi may spread across the entire district, sub district or town. A mandi secretary, for example, is

\textsuperscript{20} The Managing Director of the Mandi Board often shares the responsibility of other government departments. For instance personnel from Indian Administrative Services (IAS) may be given an additional responsibility of directing the Mandi Board.
authorised to stop any vehicle carrying agricultural commodities within its jurisdiction. A mandi in this sense represents the entire jurisdictional area. A mandi yard, on the other hand, is a yard area usually of a few acres\textsuperscript{21}, where the farmers and traders are present for the transactions. Thus in the following passages, the term mandi refers to the mandi yard – a physical market area where the actual trade transactions take place. Figure 5-2 below presents a typical yard in the state. There are some variations in the process of trade transaction depending upon whether the commodity for sale is fruit, vegetables, grains or spices. Again the process may also vary depending upon the cultural or geographical location of the yard. However, the transactions follow certain basic processes. I present the description of these fundamental processes.

\textsuperscript{21} For example, the area of the yard in one of the mandis that I visited was 17 acres.
5.5.1 Entrance to the yard

The farmers enter the mandi premises in vehicles such as the tractors or bullock carts. Some mandis charge an entry fees from the entrants, while some do not\textsuperscript{22}. The entry fee is nominal, may vary across yards and is usually in the range of two to five rupees. Upon entrance, the farmer’s name, commodity, and the tentative quantity (such as the number of bags) of the commodity is recorded and the farmer is issued an entry-slip. The entry-slip is the first and the most basic document of the trade transactions. Figure 5-3 shows the entrance gate of a yard while Figure 5-4 presents the inside view of the entry-slip issuance counter.

\textsuperscript{22} There are variations in the entry fee charged. Some mandis do not charge any entry fees; others charge a fee only from vehicle owners while farmers with bullock carts are exempt from any kind of fee.
Figure 5-3: Entrance gate of yard
5.5.2 Auction of commodities

After entry, the farmers take their commodities to some designated spots. Here, they display the commodity to the traders. Figures 5-5 and 5-6 below present the display of the commodity by the farmers. A mandi employee, usually an inspector, conducts the auction in front of the traders and the farmers. Figure 5-7 presents a typical scene in which the auction site for chilli is presented. The figure shows the array of commodity bags just before the start of the auction.
Figure 5-5: Farmers opening commodity bags for display in auction
Figure 5-6: Commodity display for auction
Figure 5-7: Chilli bags stacked for auction
Figure 5-8 presents the scene when the auction is in progress. The auction starts at a base price which is the same or slightly higher\textsuperscript{23} than the Minimum Support Price (MSP)\textsuperscript{24}. After the auction is over the mandi inspector issues the auction slip. One copy is each issued to the farmer and trader, and one copy is retained by the mandi employee. The auction slip contains the names of farmer, trader and also the auction rate. A mandi employee endorses the auction slip, and it is a binding agreement. The slip primarily records the agreed auction rate, and it does not detail the exact weight or quantum of the commodity. Thus, in the next process the

\textsuperscript{23} Some mandis start their auctions at price that is certain percentage above the minimum support price. For example at one site the auction starts at twenty percent above the MSP.

\textsuperscript{24} Minimum Support Price (MSP) is the price offered by the government at which it is committed to buy the commodity from the farmers. It is an assurance to the farmers that their commodities will be purchased by the government if the market fails to purchase it. The MSP is not offered for perishable commodities such as fruits and vegetables.
commodity is weighed. The total weight of the commodity multiplied by the auction rate gives the total payment value.

5.5.3 Weighing of commodities

The weighing of the commodity is done at a designated place, usually close to the shops of the traders. The farmers carry their commodities to weighing spots where the labourers weigh the commodity. Figure 5-9 presents a visual of weighing of the commodity.

![Weighing of commodity](image)

Figure 5-9: Weighing of commodity

A weight certificatory person, commonly known as the *Tulawati*, then certifies the weight of the commodity. Both the labourers and weight certificatory are licensed by the mandi committee but are independent contractors. They usually charge a fixed rate (for example five rupees per quintal) for weighing and certifying the weight of the commodity. The labourers
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transfer the commodity to the shops of the trader, after weighing. The weight certificatory issues a weight slip that includes the name of the farmer and trader along with the exact weight of the commodity.

5.5.4 Payment to farmers

After the weighing is done, the farmer approaches the trader and collects the payment from the trader. The trader and farmer both already have the copy of the auction slip, and weight slip and thus the payment value can be computed. While making the payment, the trader takes the initials of the farmer on a slip. This is called as the payment-slip. A copy of the payment-slip is retained by the trader, while one is issued to the farmer and the mandi. The payment-slip is the basis for determining the service charges that the trader should pay to the mandi. The yard charges a service fee for providing the various services. This fee is charged exclusively to the traders and is two per cent of the payment value25.

5.5.5 Service charge payment to the yard

After payment, the trader deposits the required service fee to the yard for various transactions. The yard then issues a ‘no objection certificate’ to the trader. This certificate is an endorsement that all the yard service charges are paid for the concerned commodity. Thus, the trader is keen to get this certificate as it entitles him to dispatch the commodity outside the yard. A private partner employee described this document as follows:

“The trader produces a certificate mentioning that he has paid all the mandi fees. Yard employees verify this certificate and issue a no objection certificate (NOC). This certificate mentions that all the service charges are paid to the yard and that the payments have been made to the farmer”.

25 A further 0.20 percent fee is charged from the traders and is contributed in the fund for the homeless people. Thus a trader pays a total fee of 2.20 percent.
5.5.6 Sauda transactions

It is also possible for farmers to approach the traders directly without coming to the yard. However, in such private transactions, in order to ensure that the farmers are not exploited by the traders, the yard ensures that the weight is being certified by the yard inspector. Such transactions are colloquially termed as Sauda\textsuperscript{26} transactions. In order to certify the weight, usually a weight certificatory is present at the shop/warehouse of the trader. Even after such private transactions, the trader is required to deposit a service charge of two per cent to the mandi.

A private partner employee explained the break-up of the service charges as follows:

“The yard charges a service charge of two per cent from the trader on each transaction. One per cent of this is given to the development fund. Of that one per cent, eighty five per cent goes to the farmer road development fund, ten per cent goes to the agriculture infrastructure development fund, and five per cent goes to another developmental fund. The remaining one per cent is the yard revenue”.

Thus, the farmer, traders and government employees pass through various exhaustive interactions. These interactions often lead to conflicts amongst the stakeholders, organisational inefficiencies and exploitative tendencies of the stakeholders. It is thus important to have a brief understanding of the issues that are associated with mandis. These issues will be dealt with in greater detail in the later sections of the thesis on preliminary analysis and themes.

There are three stakeholders in the mandi, namely farmers, traders and the mandi employees who represent the mandi as an organisation\textsuperscript{27}. Each one has different problems and issues.

\textsuperscript{26}The word Sauda translates in English as ‘agreed trade’.

\textsuperscript{27}The fourth stakeholder group comprised of the private partners (vendors) who implemented the information systems. These are not included as the core stakeholders because their presence is specific to the yards where IS was implemented. Their role is discussed later.
The farmer travels long distances to sell his commodity at the mandi. He reaches the mandi after traversing through the rugged roads and hard climes of India marked by heat, wind and dust. After reaching the mandi, he has to pass through various processes that require certain levels of literacy. He expects quick payments, fair price from the traders, and fair treatment from the yard employees.

The mandi employees are overburdened with manual operations. They neither have adequate infrastructure nor the man-power to carry out the operations smoothly. Moreover, they have to frequently deal with the political interventions.

The traders expect that their service charge payments will be processed quickly so that a NOC is issued to them at the earliest. Often in the manual processes, the traders try to under report the commodity to reduce their service charge obligations. However, this has an impact on the mandi income. Thus, the yard wants all the transactions to be captured correctly so that the service charge payable by the trader can be computed correctly.

The diverse requirements of the three stakeholders often result in conflicts and abysmal performance of the organisation. There are various types of conflicts that are prevalent in the yards, for example, there are conflicts between farmers and traders over commodity quality. In an attempt to avoid make the yards more efficient in their processes; the state government started the process of computerisation in 2003.

5.6 **Computerisation of yards**

Studies indicate that there are large price discrepancies across these market yards and often the farmers are not able to realize the best available prices (Goyal, 2010). Past studies also indicate that farmers face various kinds of problems in the yards such as cheating in commodity weighing, bearing the cost of commodity bags, delays in the payments, etc. These problems often also have an impact on the socio-psychological well-being of the farmers.
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(Anupindi and Sivakumar, 2007). It is against this background that the mandi board initiated the project on computerisation of its operations in 2003. Private vendors were provided the responsibility of implementing this project. This project was called e-Krishi Vipanan Initiative (EKVI). The project intended to make the yard operations transparent and help the decision making of the stakeholders, particularly the farmers.

The project primarily involved capturing the data on all the yard processes. The data was captured through computer terminals, hand held terminals and electronic weigh bridges. Figure 5-10 presents a hand held terminal, and Figure 5-11 present a codebook of private partners through which codes for traders are entered in the hand held terminals.
The captured data include information such as name of the purchaser and seller, commodity type, auction rate and commodity weight. By capturing this information, the service charges
payable by the trader were calculated instantaneously. At each yard, the captured data was uploaded to a central server from where the processed data was redistributed to various yards, inter-state check posts and the head office at Bhopal. The connectivity was established through VSAT with leased line backups. The VSAT connectivity also provided for video conferencing facilities between the mandis, regional offices and the head office. The data was also displayed on the website of the board. At each computerised yard, the processed data on the commodity prices at other yards was displayed on TV sets. The farmers thus got information on the auction rates at various other yards (MAPIT, 2006).

This project was conceived and executed by the Mandi Board and a consortium of organisations comprised of the Madhya Pradesh Agency for Promotion of Information and Communication Technology (MAPIT), SQL Star International Ltd and Zoom Developers. Of these, the latter two are the private partners (PP) involved in actual project implementation while MAPIT serves a consulting role. The project has been started on Build-Own-Operate (BOO) basis. The entire investment in hardware, software, manpower and maintenance has been done by the private partners. The mandi board pays the private partners a percentage of the total mandi service charges collected. The exact percentage is determined by the class of the yard28. The intellectual property right of the software was owned by the Mandi Board. MAPIT had the exclusive right to use the software outside the state of Madhya Pradesh through its associate vendors on payment of a certain percentage of royalty to Mandi Board (MAPIT, 2006).

The software application was developed by using Visual Basic with SQL Server as the back end database. Besides capturing the data related to transactions, the software has functionalities related to various yard activities such as financial accounting and payroll

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28 The computerized yards of the state were divided in categories A, B and C. Discussions with private partners indicated that the percentage paid to them was 17, 15 and 13 per cent respectively.
administration. The website of the mandi board provided mandi-wise information on the commodity transactions. Apart from this, website included information related to the Mandi Act, prevailing commodity rates at other markets of the country, tender notices and other departmental information. According to previous studies, the website received a significant number of visits, especially of the pages that display the daily rates of commodities and often from regions other than Madhya Pradesh (Vaidya, 2009). Figure 5-12 below presents a screenshot of the website of Mandi board.

![Image of Mandi Board website]

**Figure 5-12: Screen-shot of mandi board website**

Evaluation by the Department of Information Technology, Ministry of Information and Communication Technology, Government of India in 2008, indicates that the project was a success (DIT, 2008). Empirical evidence, however, suggests that there were certain issues that lead one to question the findings of the Government of India report.

Visits to the yard in 2010 revealed that conflicts had developed between the private partners and the government on various issues. The government blamed the private partners for not
being sincere in their intents. In almost all the yards that I visited the government officers complained that the private partners were not sincere in their working. The private partners, on the other hand, blamed the government for lacking the appropriate organisational culture for computerisation. The payments of the private partners were stopped by the government and raids were conducted by the income tax office on the offices of the private partners. By 2011, the equipment of the private partners was seized by the respective yards. Following this the private partners appealed in the Madhya Pradesh high court where they lost the case. In 2012, some government officers told me that even though the project was abandoned, they were hiring some data entry operators privately and were using the seized computers to generate some basic reports. According to one government officer “we have now been pushed back by around ten years due to the scrapping of the project”. The reasons for such a situation developing are discussed in the chapter six, seven and eight.
CHAPTER 6 – PRELIMINARY OBSERVATIONS

“Who should be blamed for the problems in the yard? The farmer who manipulates the quality, the trader who under reports the commodity or the government officer who accepts the bribe?

- A private partner employee during a discussion at the yard

In this section, I present my observations of the collected data. I first discuss the overall observations from the field. I then provide an overview of the issues related to each stakeholder group, namely the government, the private partners, the traders and the farmers\textsuperscript{29}. This is followed by an overview of the various preliminary codes that were used to categorise the data. The purpose of this section is to provide an overview of the issues in the mandi computerisation project. Since the project has now been abandoned, I go back in time to present the analysis\textsuperscript{30}. A detailed description of the various themes that emerged is presented in the next chapter.

6.1 Physical settings of the yards

A first-time visitor to the yard will be bewildered with its complexity. There is a conglomeration of farmers, traders, government officers and labourers. There is no way, such as a unique dress code, to differentiate a government officer from a farmer or a trader. All look alike and most of them are weary. The farmers look exhausted because they have travelled long distances to come to the yards. The traders, vibrant and confident, are invigorated with selling and buying activity. The government officers look in a hurry to finish

\textsuperscript{29} I have included four stakeholders groups here. Farmers, traders and government offices are the stakeholder groups is all yards irrespective of information systems implementation. The private partners are the fourth stakeholder group because they are responsible for implementing the information systems.

\textsuperscript{30} Specifically this analysis is based on my field visits in 2009 and 2010. The 2012 field visit revealed the information system project is abandoned.
off the auctions. The young private partners, in the early twenties can be seen sitting in the EKVI project office, entering the records from various transaction slips. It will not be an exaggeration to describe the overall scene in the yard as one of utter disorder. Such a situation can be partly attributed to the physical situation of the mandi.

Yards are usually located in the most crowded parts of the city. They often serve as a connecting link between different parts of a city. A road traversing through the mandi is a short cut to reach the other end of the city. For most of the city dwellers, the yards act as a corridor. Anyone and everyone can traverse through the mandi. Next to the yard corridors, are the shops of the traders and grain merchants. One can see jute bags of grain stacked in these shops. But these are not only the shops. Being in the midst of a city, this array could include restaurants, temples, schools, coffee shops, etc. The access to the yards is often not easy as one intermittently meets traffic congestion. One can only imagine the plight of the poor farmer who travels long distances to reach the mandi. Even after reaching the yard there is little relief to the farmer as few yards have rest rooms or basic amenities for the strained travellers.

6.2 **Typical day in the yard: Farmers**

Within the yard, the exhausted farmer is hurriedly asked to pile up his commodity at an auction spot. He then waits – maybe for an hour or two - till the auctioneer comes to auction his commodity. The auctioneer is accompanied by a crowd of traders. Within a minute, the traders make a judgement about the quality of the commodity and bid the auction price. After the auction is over, the farmer awaits the weighing of the commodity. He moves the commodity, a few meters away, to the weighing place. There, he is subject to the whims and the hegemony of the labourers that unload his commodity. Often he may need to unload the bags himself, while the labourers might only provide minor help, even when they charge full
labour. After the weighing, if there are no conflicts on commodity quality, the trader makes the payment to the farmer. The payment process, like the other processes, consumes a few more hours. Finally, the farmer gets the payment for his commodity late in the evening. He then intends to do some other necessary purchasing such as of irrigation pumps and medicines. By evening or perhaps late night, he is returns home. These problems related to travelling long distances are farmer specific, as the traders usually reside close to the yards.

6.3 **Typical day in the yard: Traders**

The traders purchase the commodity and then sell it forward as soon as possible. They purchase tons of commodities and even small margins yield considerable profits for them. They are in a hurry to sell the commodities. They need documents to prove that all yard service charges have been paid. The trader can be seen moving between the yard office, banks and their shops to procure these documents. Their houses are nearby and so lunch or tea breaks are easy. Thus, it seems that amongst all the stakeholders, the traders have the easiest time. The government officers seem to be caught between the tricky trader and the frustrated farmer.

6.4 **Typical day in the yard: Government officers**

For the government officer, the mandi operations are just another day, and their concern is to complete the auction of all the commodities entering the yard, as soon as possible. The government officers are scarce and accustomed to the drudgery of manual working. Over the years, they have mastered the skills of quickly scribbling the details of farmers and traders on paper slips (see, for example, Appendix three which presents the key documents). Adjusting to computerised work is a bit difficult for them. Most of their time is consumed in performing the auctions, compiling the data from slips into registers, and resolving conflicts between the farmers and traders. Some time is also given to the sycophancy of their officers and gulping
of tea. There are a lot of expectations from the government employees, and they are the easiest to blame. The traders raise their fingers to them, the farmers despise them, and their seniors and political leaders chide them. They look forward to getting all the commodities auctioned and weighed so that they can call it a day. With computerisation, their concern is also to make sure that the private partners have entered the transaction records correctly.

6.5 Typical day in the yard: Private partners

The private partners were assigned the task of implementation of the EKVI project. For the field staff, this implementation amounted to data entry from manual records. The offices of the private partners were stacked with the booklets of auction and weight records. The operators could be seen busily, entering these data. The data entry operators were local employees, from the nearby town, village or city. Most of their time was consumed in the data entry and reconciliation of the manual records with computerised records. Sometime was lost in cajoling the yard in-charge for the mistakes made in data entry.

6.6 Stakeholder issues in the yard

Overall it seems that for all stakeholders except the traders, mandi processes are exhausting both physically and mentally. For the traders – staying close to the mandi – these processes are complicated but not exhausting. The economic incentives often compensate for their tiredness. Given that the mandi is an exhausting place for all the other stakeholders, it is likely that there would be some resentment amongst stakeholders. In the coding of the data, these resentments came out in the form of each stakeholder blaming the other. A brief outline of issues concerning each stakeholder is presented below.
6.7 Stakeholder issues: Government officers

The government officers told me about issues specific to computerisation and the organisational problems. The government officers were wary and sceptical about the role of the private partner. According to them the private partners were neither efficient nor sincere. The officers felt that the computerisation project was conceived by the senior officers without any participation of the field level staff. They were overburdened with work and felt that their senior officers were apathetic to their concerns. The officers felt that there was too much of political intervention in their working and hence they were not able to discharge their duties properly. The officers also discussed the variations between yards. These variations were the outcome of the overall change in the language and culture of the state. According to the government officers, neither the Mandi Act nor the software applications were tailored to suit these variations.

6.8 Stakeholder issues: Farmers

The farmers told me about issues related to their problems in the yard, agriculture and their context. Nearly all the farmers mentioned that the entire process of selling the commodities in the yard was too complicated, strenuous and lacked transparency. In terms of agricultural issues, the farmers discussed the characteristics of Indian agriculture such as dependency on rains, and their agricultural practices. The farmers raised certain contextual issues such as lack of awareness and literacy, lack of government support, role of social functions in their life, reasons for their poverty and the vicious cycle of interest rate payments on debts. The farmers were largely unaware of the computerisation in Mandi. They were getting computerised auction slips, and these slips were their only point of interaction with the information systems.
6.9 Stakeholder issues: Traders

The traders were quick at blaming the government officers for corruption and financial manipulations. They seemed reluctant to pay their service charges properly because of two types of fears. First they were fearful that the service charge they deposit will be siphoned off by the corrupt government officers. Secondly they feared that even if they paid their service charges fairly, they would not get any direct benefits (such as cleaner yards or other infrastructural benefits). They also blamed the state government for imposing unfair tax regimes that prompted them to do un-registered transactions.

6.10 Stakeholder Issues: Private partners

The private partners were the fourth stakeholder group in IS implementation. The discussions with the private partners clearly indicated that there were strong conflicts between the government and the private partners. The private partners blamed the government officers for not trusting the private partners, and resented their lack of authority for IS implementation. They also blamed the government for not giving adequate attention to the project and for not changing its bureaucratic style of working. They were utterly dissatisfied that instead of acknowledging their sincerity in trying to make the project a success, the government was repeatedly reprimanding them.

My discussions with all the stakeholders clearly indicated that each stakeholder group was wary about the other. The farmers doubted the traders for payments. The government officers doubted the sincerity of the private partners. The traders were convinced that corruption was prevalent amongst the government officers. Thus, it seems that each stakeholder assumed that the other stakeholder was deceptive and fraudulent. Such a situation could result in lack coordination and escalations of conflicts. This required a detailed analysis. However before
analysing this further, it is pertinent to present the various themes that I derived from the dataset. These themes are described next in chapter seven.
CHAPTER 7 - THEMES

In this section, I discuss the main themes and the subthemes that emerged. The three key themes that emerged were trust, stakeholder strategies and context of farmers. I also present certain other themes. Table 7-1 below presents the main themes identified in the research. Appendix four presents a detailed listing of all the nodes along with their coding sources and references.

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Table 7-1: Main themes from data analysis

7.1 Stakeholder strategies in IS implementation

There are four key stakeholder groups in the Information Systems implementation project, namely the farmers, the traders, the government officers and the private partners implementing the information systems. Each group has its own objectives in the market yards. A typical farmer, for example, wants his commodity to be liquidated as soon as possible. A trader is interested in buying from the farmers and selling the commodity to other

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31 The themes are presented in the order of their discussion in this chapter.
traders. The government (officers) is concerned with documenting the transactions at various processes, and the private partner is concerned with digitisation of the data. In order to achieve these objectives, the stakeholders use various strategies. In this section, I present the description of the various strategies employed by the stakeholders.

7.1 Farmer strategies

The farmers use various strategies in order to meet their interests. These strategies can be classified as resource, process, power, political, business and cultural strategies.

7.1.1 Resource strategies

7.1.1.1 Quality manipulations

The quality of the farmers’ commodity is often not homogenous. During the auctions, the sample shown by the farmers is different from the actual commodity. This results in conflicts between the farmers and traders. Such conflicts require the mediation of the government officers and a physical verification of the commodity is undertaken. One of the private partner employees explained this with an example as follows:

“The farmers have different qualities of the commodity. What is shown as the sample is different from the actual commodity. For example on the top of the bag, they keep good quality while in the bottom, they keep the poor quality. The trader cannot inspect the full commodity as the bags and trolleys are too large to be fully opened...so if you go to the yard premises, you will observe that these conflicts are occurring continuously”.

I discussed this issue of quality manipulation with some farmers. The farmers mention that often they do not have adequate seeds of one variety, and hence they use various different varieties of seeds to get a full harvest. One of the farmers explained this at a field as follows:
“In this field you will see that the crop is not homogenous. Some crops are stunted while others are not. This is because the farmer here has planted two varieties. There could be various reasons for this. The farmer may not be having enough seeds of one variety, so he has sowed whatever he had. Second his intention is to sell in the yard. If, you mix the superior variety with the inferior, you could sell the commodity for the price of superior quality. For example, the superior variety gets a rate of 1700 rupees per quintal, while the inferior is around 900 rupees per quintal. So the farmer can sell it for the rate of 1700, though there is an adulteration”.

Some farmers have old stock from previous harvests which has lost lustre. Thus, the farmers mix such old stock with the new and this also leads to quality manipulations. One farmer described this as follows:

“Now suppose that I have some old stock. I had kept it in reserve for some reason. Over the period of time, the quality of the grain gets reduced. It loses its shine and hence it does not yield a good price. In such situations, the farmers mix the old stock with the new one so that they get a better price”.

In some cases, the quality manipulations are not intentional but are a result of the socio-economic contexts of the farmers. For example, the farmers often share trucks to come to the market yards, and their commodity gets mixed up. One of the informants described this as follows:

“Farmers usually have joint families in the village and so they bring their commodity together. One farmer may bring two quintals of commodity another may bring five quintals, yet another with three quintals will want to join them. In one truck, there may be produce of many farmers. This reduces their cost, but results in the mixing of
different varieties of a commodity. So the farmers think of deceiving the traders by placing the superior quality grains over the poor quality”.

Quality manipulation causes frequent conflicts and disturbs the overall working of the market yards.

7.1.1.2 Process strategies

7.1.1.2.1 Multiple contracts

Apart from quality manipulations the farmers also use another strategy to maximise their profits. They sign obligatory contracts with various traders for a single commodity. A trade contract between the farmer and trader is a binding agreement, and a farmer is required to oblige it. However, the farmers often ignore the rule of law and sign multiple contracts. One government officer described this as follows:

“During the auction the farmers agree to sell their commodity at the auction rate. However, often they get information that they have sold the commodity for a lesser price. So they immediately put their commodity for a second auction forgetting their commitment for the first auction”.

According to a government officer, because of the rapid advancement of communication technologies the farmers are well informed about the commodity rates. The officer mentioned that:

“Often a farmer may feel that the rate offered to him is less, and he could get better rates by waiting. These days because of the mobiles, the market rates are communicated very quickly. So if, the better rates are expected in the afternoon than in the morning, the farmer puts the same commodities in the queue for another auction. He thus signs another contract (auction slip). So for one commodity he gets
two contracts issued. He then compares which of the two provides a better rate. He then presents that slip at the time of the weighing of the commodity and the other slip has no use for the farmer”.

Sometimes it is not the farmer alone who is involved in such malpractices. Often the traders and farmers negotiate a deal that overrides the rates agreed to in the auction contract. One private partner employee stressed this as follows:

“Sometimes the farmers and traders come together and negotiate a different rate. In such situations, they do not care about the existing contract. This creates severe data reconciliation problems”.

7.1.1.3 Power strategies

7.1.1.3.1 Physical threats

Sometimes the farmers are convinced that the traders are refusing to buy their commodity because the price of the commodity has fallen. In such situations, the farmers accuse the traders of false quality allegations and use physical threats to force the trader to acquiesce to their demands. One government officer recollected one such instance and mentioned that:

“A farmer had brought some red chillies for sale. The quality shown in the sample was very good. The trader obviously quoted a high rate, around 4000 rupees a quintal, but the actual commodity had a very poor quality, which was not even the worth of 800 rupees. So when the commodity was weighed, a conflict arose between the farmer and trader. The trader refused to pay the rate of 4000 rupees, and the farmer then called some goons in the yard, and they started threatening the traders. The trader came to me, and I told him that I can solve this but by the time I solve this, the goons would have thrashed you. Eventually the trader had to buy the commodity at the rate
of 4000 rupees a quintal, though the quality of the commodity was not even worth 800 rupees”.

7.1.1.3.2 Breaking the queue

Often the farmers resort to the strategy of breaking the queue and seeking an out of turn favour. Such strategies often result in conflicts amongst the farmers and also disturb the overall functioning of the yards. One of the private partner employees explained this as follows:

“During the process of auctioning, there is a queue of vehicles. Now some farmers do not follow the queue, and they park their vehicles out of the queue. The other farmers start complaining as they have been standing in the queue since early morning. This creates a conflict situation”.

7.1.1.4 Political strategies

The farmers also use certain political strategies. Such strategies are used in situations of conflicts with traders and government officers. Political strategies are manifested in three forms namely agitations, blaming the government officers of malpractices and political pressuring. It seems that such strategies are employed in situations of quality related conflicts.

7.1.1.4.1 Agitation and blaming the government officers

With regard to agitations and blaming the government officers one government officer mentioned as follows:

“During the auction the trader can see the commodity only from the top of the bag. Sometimes the bottom of the bag has a lot of dust and foreign material, if we take any actions on the farmers they start with agitations. They say that the farmers are being
exploited. The easiest thing for the farmers is to blame the government officers and so we have to keep all the books of rules and laws aside to work properly here”.

7.1.1.4.2 Political pressuring

Another private partner described the use of political pressurising by the farmers as follows:

“The farmers often create problems in the working of the yard. They create havoc, if any decision is taken against them. They are heavily involved in politics, and they become too aggressive as they have the support of the yard president. The president of the yard committee is an elected president. He treats the yard as a launching pad for his political career. He comes here for his political manoeuvres. On the slightest provocation, he comes in support of the farmers. He sees conflicts as an opportunity to launch his political careers”.

7.1.1.5 Business strategies

Farmers employ certain business strategies that are directly related to profit maximisation. Such strategies include maintaining contacts with the trader, stocking, mortgaging the agricultural commodities, signing contracts with seed companies and selling the commodity in different slots.

7.1.1.5.1 Maintaining contacts with the trader

Farmers often do not have access to information related to commodity markets. They have no idea of the overall demand and supply situation in the market. Thus, they frequently need guidance from the traders. One of the respondents explained this as follows:

“As a farmer I can tell that the farmers are in touch with the local traders. A trader assures the farmer that if he plants a fruit, he will get more profit. The farmer thus
feels that he has the backing of the trader and the trader would buy such commodities from the farmer. He feels confident about selling his commodity”.

7.1.1.5.2 Stocking

Another strategy used by the farmers is to stock their commodities. Two factors influence the choice of this strategy. First is the expectancy about the better future rates. For instance farmers stock non-perishable commodities such as soy bean and garlic if they feel that current prices are too weak. One of the farmers mentioned this as follows:

“We do not sell the commodities immediately, as we may get better rates in the future. For example, the rates of garlic are very low presently, around 250 rupees a quintal, that is too less. So we will only sell a small portion now to meet the cash requirement, and will stock bulk of the commodity later when the rates become better in the future”.

Another factor relates to the expectancy of a social function in the near future. Farmers need to liquidate their commodity so as to meet the cash requirements of social functions such as marriages, etc. In situations when there is no anticipated social function; farmers prefer to stock their commodity. One of the farmers described this as follows:

“In some cases, a farmer may not have any function due for the next few years, for example, there is no marriage due in the next two or three years, and then he would store the commodity and sell it when the prices are high”.

7.1.1.5.3 Mortgaging the agricultural commodities

Certain agricultural commodities of the farmers, such as soy bean have an asset value. These can be mortgaged in warehouses, and the farmer can secure loans against these commodities.
Often the loaned amount is again invested in agriculture. It seems that such a strategy is used by the affluent farmers. One farmer described this as follows:

“The person we are going to meet is an affluent farmer. Such farmers may keep certain commodities such as soybean in warehouses. The warehouse will treat this soya bean as an asset and will give him a loan unto eighty per cent of the commodity value. From this loan, the farmer will again purchase the soya bean and would again mortgage it. As soon as the commodity rate increase, the farmer then sells the entire commodity and thus makes a lot of money”.

7.1.1.5.4 Signing contracts with seed companies

Sometimes the farmers also sign contracts with the seed companies. Usually under such contracts, the seed companies agree to buy the farmer’s commodity at a designated price. One farmer explained the conditions under which such contracts are signed:

“There are a lot of farmers who are unable to meet the cost of agriculture. They do not have the financial ability to purchase the seeds or pesticides. Also, they do not know at what price their commodity will be finally sold. Thus if, a company commits to purchase their commodity at an agreed price, this brings assurance”.

7.1.1.5.5 Selling the commodity in different slots

In the market yards some of the farmers, sell their commodity in different slots. This is because they feel that, by slotting, they may get better prices. One of the farmers described this as follows:

“We have five bags here, we are two brothers…we will sell the lots separately…as different farmers…maybe I will sell two bags and my brother will sell three bags…this may yield us more profit”.

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7.1.1.6 Cultural strategies

7.1.1.6.1 Patience

Another strategy used by the farmers relates to the use of *patience*. Often the farmers feel powerless when dealing with the other stakeholders. They exercise this strategy during payment and weighing process. During the payments the farmers hardly bother about each and every penny. Instead, they are content with the tentative amount paid by the traders. A government officer corroborated this as follows:

“See the market yard is a place where the pitiful farmer comes, He takes whatever the trader pays him and goes back”.

During the payment process, the farmers usually avoid arguing or even questioning the traders about the payments. They are fearful that if they pose too many questions perhaps their payment will be further delayed. One farmer described this as follows:

“The farmer keeps his patience in dealing with the traders. He tolerates all the treacheries of the traders. He cannot help it because if he chooses to fight or argue, the trader will delay his payments. So the farmer tolerates everything in the yard”.

Another process in which the farmers exercise this strategy is *weighing*. The traders often do some adjustments related to the weight of the commodity. For example, the weight of the commodity bags is adjusted in the commodity weight. However, they seldom oppose such adjustments as they feel that any argument would finally lead to a conflict and a delayed payment. Sometimes the labourers also exercise a lot of hegemony in weighing the commodities of the farmers. In all such situations, farmers prefer to exercise *patience* as they feel that any conflict would further delay their payments. This was further explained by a farmer as follows:
“As per the rules, it is the duty of labourers to weigh the commodity. They are required to lift the commodity from the vehicle and put it on the weighing machines. They are also required to remove it from the machine, but they do not do the entire work. We have to help them. Yet they charge full payments from us…Suppose we tell them that we do not need the labourers, they will weigh the commodity late in the evening, and we will be late…Also, look at tricks of traders; in the weighing, they consider the weight of 91.2 kilogram as equivalent to 90 kilogram. Their reasoning is that the weight of the bag is one kilogram. So they still take 200 grams more. Moreover, even the weight of the bag is not one kilogram. So we have to exercise patience in all such situations else, the payments will be delayed”.

7.1.2 Trader strategies
Traders use certain strategies to meet their objectives. These strategies can be classified as process, power, political, business and cultural strategies.

7.1.2.1 Process strategies

7.1.2.1.1 Unregistered transactions

Discussions with various respondents from all the stakeholder groups indicated that traders often do unregistered transactions. Often such transactions are called Unregistered Deals (URD). One farmer explained this as follows:

“In some yards such as the nearby yard, very few commodities enter the yard for trade as most of the trade is done outside the yard. If a trader buys the commodity in the market yard, then he is required to deposit a service charge of two per cent. However, there are also some dealings in which the service charge payment is not done. These are called as un-registered deals (URD). This is nothing but theft of the service charges and both the industries and traders do this”.

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The traders do such transactions in order to avoid the recording of their trades. By not recording their transactions, they save the service charge payments as well as other taxes applicable by other departments. One of the private partner employees described this as follows:

“The two per cent service charge that the traders are required to pay brings a lot of difference to them as their transaction gets documented. If documented, they have to pay other taxes such as value added tax or sales tax. Sometimes such taxes may reach as high as twenty per cent of the purchased commodity. Obviously the traders try to avoid it”.

In certain yards where high priced commodities are traded, obviously, the service charge payments are high. In such yards, unregistered transactions are done openly. One private partner employee described this as follows:

“In certain yards the commodities traded are highly priced such as medicinal commodities or spices. Such commodities may reach a price as high as rupees 20000 per quintal. Obviously the service charge payments are huge and so the traders do most of the transactions without declaration. If, they do the transactions of ten bags, they will only disclose the transaction of one bag”.

The current computerisation project restricts such practices of the traders by capturing the data from various sub processes such as auctioning and recording and then reconciling these. The powerful lobby of the traders was thus opposing the project. One private partner employee revealed this as follows:

“See the traders are not supporting this because they do not want that computerisation should be implemented. Computerisation restricts their covert (illegal) trades and so
there is pressure from trader community to close the EKVI system. Certainly if, there is a pressure to close down a system, it means that the system is working”.

7.1.2.1.2 Payment delay

Another strategy used by the traders is to delay the payments to the farmers. Often, after the weighing of the commodity, the farmers have to wait for long hours to get the payments. One of the farmers explained this as follows:

“We will get the payments in the evening. The traders are not prompt in the payments. They make us wait for long hours for the payments. We have done weighing of the produce are awaiting the payments. We may have to wait for another three hours or maybe four. The trader will not pay us until two o clock, he wants to earn the whole day’s interest at the bank and will then he will make us payment”.

The farmers come from far off villages, and they intend to do other purchasing from the cities. Because of the delay in payments, they are not able to do the purchasing. Another farmer described this as follows:

“In order to come here we have to leave our villages early morning. For example, today we came here around seven in the morning. I started travelling from my village at around five in the morning and reached here at around seven. A lot of farmers start travelling at around three in the morning. So if, the payments are delayed, it becomes too hard for the farmers. Furthermore, we cannot do any other purchasing such as of pesticides, seeds, or other household things. Sometimes we also have to see the doctors or purchase medicines. Most of the shops are about to close by that time, and we also we have to go back to our villages so we can hardly do any purchasing”.

There are also security threats as farmers may be looted while returning in the night. One government employee described this as follows:
“Traders do not make payments timely. The illiterate farmer passes through various complicated and then he gets the payment late in the evening or next day. Often the farmers live in interior villages and have to travel late in the night. Then he has to reach his village, which is in the interior, cut off from the main road. He may be looted. So, who is responsible for this?”

It appears that the traders have a long history of delaying the payments and that computerisation was able to reduce this delay to some extent. A private partner employee mentioned this as follows:

“The main aim of the EKVI project is to save time and money of the farmers. A farmer may not be able to see the differences compared to the manual system, but there have been improvements, such as in payments to farmers. Earlier he would have to spend the entire day in the yard but now he finishes his work in three to four hours. In the earlier times, he would stand for hours all together with the accountant of the trader. The accountant would keep him waiting for hours all together”.

7.1.2.1.3 Weight manipulations

The traders do some manipulations that relate to the weight of the commodity. For example, they neglect the fractional weights of the commodity. Given the cumulative transactions that a trader undertakes every day, the overall benefits from such manipulations may be large. One farmer, who had come to sell garlic at the yard, explained this as follows:

“In this yard the traders ignore the fractional weights. For example, 54 kilograms and 400 grams is considered as 54 kilograms. So there is no use of having electronic weighing machines. So just by ignoring the fractional weights imagine how much money they are making. There are thousands of bags coming in this yard every day”.
I enquired more about this weight manipulation and asked a private partner employee about this. The answer of the private partner employee was as follows:

“This is a clear manipulation by the traders…they do such things…but see these are the administrative issues with mandi…the mandi should resolve this…the mandi employees must also be involved with the traders…they must be accepting the bribes offered by the traders and that is why they do not take any action against the traders…”

7.1.2.1.4 Record manipulations

The traders do manipulations in the records submitted to the yard office. They under-report their purchasing prices. By doing so, they are able to show a greater stock. Such stock is then used to adjust the unregistered transactions. One private partner employee explained this as follows:

“It is common in the yards that traders do not accurately report the commodity prices. Traders report that the commodity was purchased at a very low cost and show a higher stock. Such manipulations get highlighted only when we scrutinise the computerised record. It is only then that we realise that the trader had purchased, for example, only 50 quintal of a commodity but has exported 80 quintals. For example, the usual rate of garlic is around 1800 rupees a quintal, but those who do the manipulations of weight and commodity; they report the rate at around 300 to 400 rupees per quintal. They show an increased stock to adjust their unrecorded transactions”.

By under-reporting, the commodities traders are able to save their service charges. One of the private partner employees described the mechanism as follows:
“The rate of poppy seeds falls between 23000 to 25000 rupees per quintal. So if, a trader purchases four quintal of poppy seeds, he has to pay a service charge on the amount of rupees 100,000. So what the trader does is that he only declares a purchase of 40 – 50 kilograms though he may have purchased four quintals. During my entire experience in some yards, I never saw that even a purchase of one quintal was declared. The maximum disclosure in that yard is around thirty to forty kilograms”.

Often the traders manipulate their records of the payments made to the farmers. These records are the basis for determining the service charges. They do so by under-reporting their payments to farmers. One of the private partner employees explained this process as follows:

“At the time of the payment, the trader is required to take the counter signature of the farmer on a payment slip. Copies of this slip are provided to mandi committee and farmer. Uniformity of the three slips is maintained by putting a carbon paper in between the slips. Often the crafty trader removes the carbon paper from the farmer’s slip and issues him a payment slip, for example, for 50 quintals of payment. After the farmer has gone, the trader puts the carbon paper between the yard’s copy and his copy and mentions the purchase of lesser quantity; say 20 quintals. He thus saves his service charge liability”.

The traders do some manipulations in the declarations about the commodity that is sold by them. They often indicate single commodity in their documents, but send multiple commodities in their vehicles. There are no facilities for physical check-up of the transportation vehicles at the check posts and hence they are able to deceive the inspectors at the check posts. Sometimes they do so by conspiring with the inspectors. One private partner employee explained this as follows:
“I will give you an example about their manipulations. A trader gets “tax paid certificate’ for 15-20 quintals of purchase. While loading the vehicle, he loads it fully for i.e., for 35 quintals and he does this by making arrangement with the yard employees at the check posts. Also, he will show only one commodity on papers but will load various commodities. The rule is that if he has a ‘tax paid certificate’ for one commodity then he is allowed to take only that commodity and not others. The inspector at the check post cannot physically see all the bags and so a trader will dispatch various other commodities. So these are the kinds of things that happen in the yards”.

Sometimes the traders declare that the commodity is being sent outside the yard premises for processing purposes, but the commodity is sold to the industries or other traders. One government officer explained this as follows:

“Often a trader would dispatch his commodity outside the premises mentioning that it is being taken to his warehouse for cleaning, but he would not have a warehouse outside the yard. So where has he sent the commodity? Often the traders say that they are sending the commodity for cleaning, and then these commodities do not return to the yard. So the yard loses the service charges for such deals. So these are the tricks that the traders play, and one has to keep an extremely close eye on them and watch them carefully”.

It seems that the traders have a long history of doing such manipulations. In the manual system, for example, a government employee manually verifies the records submitted by the traders. Often due to excessive work pressure, the employees are not able to verify each transaction and rely on figures provided by the traders. The traders often exploit this situation. One government officer described this as follows:
“See what used to happen in the earlier system was that a trader used to submit a periodic statement of the purchases made by him. This statement included the price of the commodity purchased as well as the quantity of the purchases made. So the trader used to present the actual commodity quantity that he has purchased i.e. he would submit the correct figures for the total commodity purchased, but he would manipulate the price of the commodity. He would intentionally make a calculation mistake commodity price. For example, suppose a trader purchases the commodity worth 20 million rupees, he will show that he has only purchased the commodity worth 15 million. So the traders do such manipulations. Even now sometimes they manipulate the auction rates by overwriting on auction slips”.

7.1.2.1.5 Bribes and corruption

The traders bribe the contractual as well as the government staff. They do so for various manipulations related to commodity weight, declarations, etc. The traders bribe the weight certificatory to under-report the commodity weight. One government officer mentioned this, while he was blaming the private partners on issues related to data reconciliation. The government officer described this as follows:

“Sometimes the traders bribe the weight certificatory, so that he certifies the under reported commodities. By under-reporting the traders save their service charge liabilities. With computerisation, the private partners should be able to detect this discrepancy immediately, but they find such differences after a long time has passed, around two or three months”.

The private partner employee also mentioned that such bribing of the weight certificatory was widely prevalent. The employee mentioned as follows:
“The weight contractor can be paid some 50-100 rupees extra by the trader. For example, he would certify that the commodity weighed was 20 quintals, while in actuality, it may be 35 quintal. So the trader does not mind paying extra hundred rupees to the weight certificatory”.

It also seems that the traders bribe the government officers so as to receive certain favours in the auctions. One farmer mentioned this as follows:

“The government officer there is already a bribed person. He is like a puppet in the hands of the traders. He sees which tractor has a good quality commodity and informs the traders. The traders then accumulate around that trolley, and the other trolleys do not get good rates or are not purchased. So the traders bribe the inspector and sometimes he will not auction the commodity”.

7.1.2.1.6 Retains bags of farmers

Farmers bring their commodities in jute bags. Often they purchase these bags from the open market at a significant cost. In most of the yards, traders do not return these bags to the farmers; neither do they make any adjustments for the cost of the bags. This is an extra expenditure for the farmers. One farmer explained this as follows:

“The bags that we bring are retained by the traders and are not returned to us. So the next time when we come back to the yard, we will need to buy new bags. The bags start from the price of around 12 rupees per piece and reach as high as 30 rupees”.

Another farmer described the seriousness of this issue and mentioned the following:

“I remember that earlier the traders used to return their bag to us, but now they do not do that. They even get the bag free from the farmers. In some yards, they do return the bags but here they do not. The cost of the bag is quite high. Some bags are costly, for
example, the bag for the storing potato costs us around 27 rupees per piece, and we have to buy hundreds of them. Someday I am sure this issue will become a leading source of confrontation”.

7.1.2.1.7 Smuggles the commodities to other states

The traders also resort to various strategies that have a negative impact on the success of the information systems. They smuggle the commodity in the adjoining states without paying appropriate service charges for them. One of the private partner employees explained how the traders implemented this strategy:

“See the traders usually export common commodities such as wheat, soya bean and gram, to the adjoining states. They pay all the service charges and taxes for these commodities, but within these commodities they keep a few bags of commodities that are highly priced, such as poppy seeds. The check post inspectors neither have the time nor the resources to verify each commodity bag. They just ensure that the vehicles have all required documents”.

7.1.2.1.8 Standardises the bags

The traders standardise the bags of the farmers. The farmers bring their commodities in their own bags of varying sizes. These bags are then consolidated by the traders into designated weight denominations. By doing such on the spot standardisation, the traders save their cost and effort. A private partner site in charge, explained this as follows:

“See this process of standardisation is for the sake of the traders. Else he will need to redo that because these commodities are further sold in standardised bags. The trader will have to standardise the bags at some stage, and he will need labour to do that. So he prefers doing it here itself”.

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This standardisation often results in conflicts amongst the farmers and traders as the farmers are required to wait till the bags are standardised. Moreover during standardisation the weight of the bag is adjusted, which is described above, which results in farmer/trader conflict. When I asked the trader about the rationale for such a practice, his response was as follows:

“We standardise the bags so that the farmer’s bags is weighed accurately so that we can make accurate payments to the farmers by counting the number of bags. Also we get to see the commodity quality during standardisation. This ensures that there is no quality difference. So when we make the standardized bags we can see the quality of the commodity also”.

7.1.2.2 Power strategies

7.1.2.2.1 Presents physical threats to other stakeholders

Often in some yards the traders pressure other stakeholders, by showing physical aggression. I was interviewing one government officer at a yard. While this interview was underway, another employee informed the officer, about a strike by the traders. The officer asked me to come along to the site of the conflict. The following conversation happened between traders and government employees:

TRADERS: “see we were told that the auction will start after half an hour, but you have started it immediately. This is not fair. You should not have said that auction will start after half an hour …”

JUNIOR EMPLOYEE: “Who told you that the auction will start after half an hour? I never said so. You are lying no one said that. Our senior is standing here. Why do not you talk to him?”
ANOTHER JUNIOR EMPLOYEE (to traders): “No one has said that auction will start after half an hour. You are lying”.

TRADERS: “See there is only one person to do the auction. That is why we are complaining. Ok now sir has told so let’s start the auction”.

During the entire conversation, traders appeared unusually aggressive and hostile. This conversation clearly revealed to me that, trader may use such pressure tactics.

7.1.2.2.2 Uses yard infrastructure for personal benefits

The traders also use the yard infrastructure for their personal use. One of the farmers described this as follows:

“These sheds here are meant for the farmers so that they can rest or keep their commodities here, but you will see that these sheds have become the warehouses of the traders. So the poor farmers sit over the stacked bags or under the sun; the traders have a monopoly in some yards”.

7.1.2.3 Political strategies

7.1.2.3.1 Funds political parties and harnesses political support

One of the reasons, for the power of traders, is their nexus with the political parties. The traders fund the political parties and hence are able to influence the policy. One government officer mentioned this, when I asked him about the most powerful stakeholder group in the yard. He described the traders as the most powerful stakeholder group and mentioned as follows:

“The most influential stake holders are the traders. They influence the policies. They also make donations to the political parties and hence are very influential. There have been some direct changes in the policies due to the influence of the traders…”
The traders also use their political backing for fixing the auction rates of the commodities. This was mentioned by a government officer as follows:

“Sometimes the traders have political connections. For instance, a trader’s brother may be a member of the legislative assembly. So whatever auction rate he quotes is the final quote. Other traders may not quote beyond the rate quoted by this trader”.

7.1.2.3.2 Pressures government officers

The traders often use certain pressure strategies in order fulfil their interests in the yard. Such strategies often result in the government officer or the private partners succumbing to the wishes of the traders. A private partner employee described an incident, and explained such pressurising as follows:

“See there was a meeting of the representatives of the farmers, traders and the weighing contractors at one of the yards. It was decided in the meeting that the spot weighing procedure should be abandoned. In spot weighing the commodity of the farmers is weighed on the spot and the farmer need not carry the commodity till the trader’s shop/warehouse. If spot weighing is abandoned, the trader has to bear the transportation cost of the commodity. Obviously traders opposed spot weighing. They did a strike and refused to purchase the commodity of the farmers. As a result, the entire working of the yard was brought to a standstill, the head office kept issuing orders, but these were not implemented”.

7.1.2.4 Business strategies

The traders use various business strategies in the yards such as the formation of cartels, advance tax payments and mixing various commodities. Below, I discuss these strategies.
7.1.2.4.1 Forms Cartels

The traders come together and make informal cartels. Through these, they regulate the auction prices. This restricts the farmers from getting a fair price for their commodity. Nearly, all farmers mentioned this. According to one farmer:

“See the case in the yard is such that four or five traders come together, and they fix the auction rate. In front of the mandi inspectors, the traders will show as if they are quoting higher prices, but they had pre-decided the rates and do not quote beyond that”.

Often the farmers do not get a consistent price for their commodity even when the quality of the commodity is similar. As a result, they are inclined to think that prices have been fixed beforehand and that the auction is a mere formality. I observed while watching the auction of a farmer. The farmer later described this as follows:

“You must have observed the fixing of the price in my case. My two lots of the same quality have been auctioned for different prices. One has been auctioned for 325 rupees a quintal, while the other has been auctioned for 375 rupees a quintal. There must be some tacit agreement between the traders on this. One has quoted a higher price while the other has quoted a lower price. So these are the tricks that the traders play”.

Sometimes when there are a lot of arrivals in the yard, the traders do fix an auction price but according to one government officer, its impact and margin is insignificant. According to him:

“The fixing of pricing and the formation of a cartel depends upon the demand and supply of the commodities in the market. If there are few traders but more arrivals, then the traders know that farmers will not return to the village without selling
commodities. So obviously, they do not quote the rates beyond a point, but this difference is not much compared to the previous day’s rate, around 20 or 25 rupees. For instance in some markets, the normal arrivals are around 2000 bags every day. Suppose that there is a sudden influx in a market and over 5000 bags arrive on a day. In such situations, traders feel that the farmer has to sell the commodity and so they quote may be five or ten rupees less, but then there is not much difference”.

I discussed the same issue with a trader. According to him, the traders were not involved in the fixing of the auction prices and his response was as follows:

“No, that is not true. The traders do not fix the auction prices. See if the prices were decided beforehand, then they should be consistent throughout the day, but that is not the case. The rates change throughout the day. So this is a false allegation”.

7.1.2.4.2 Advance service charge payments

Traders deposit their service charge in advance so that they can sell the purchased commodities. The traders are interested in selling commodities as soon as possible, even when the profit margin per unit is little. Given the high volumes of transactions, they expect to gain significant profits. Various respondents mentioned, including a trader, who mentioned that:

“I have purchased soybean for 2200 rupees per quintal today and will sell it when the rate is 2300 i.e., on a difference of 100 rupees per quintal. I have purchased 300 quintal today and will sell it immediately at a difference of 100 rupees, and I will make thirty thousand rupees”.

A private partner employee described this as follows:
“Traders do not want to keep the stock for a long time. They want to sell it forward as soon as possible. Even if there is a profit of ten rupees per quintal they will sell it. They are interested in faster turnover”.

By depositing the advance service charges, they have the prerogative of selling the commodities as soon as these are purchased. A trader explained this as follows:

“Suppose that I have purchased some commodity today and have deposited a service charge of twenty thousand rupees in advance. This service charge is two per cent of the purchases that I have made. So against this advance, I am entitled to purchase the commodities worth one million rupees, and of course, I can sell this commodity anytime if the rates are good. So that is why we prefer depositing some advance service charge”.

Often some unscrupulous traders use the receipts of their advance payments to sell the commodity even when their actual advance payment deposits have exhausted. One private partner manager described this as follows:

“There are some special cases in which this practice of advance service charge payments is exploited by some traders. We have recently caught some traders who have already used up there advance deposits, but they are using the previous receipts as a basis for sending their commodities forward”.

7.1.2.4.3 Mixing the commodities

Traders supply the commodities to various industries such as processing plants and seed companies. These industries prescribe their quality standards to the traders. One trader explained this as follows:
“We purchase the commodities of various rates and quality. We purchase both the good quality and poor quality and then we mix these. For example, the commodity that you see here has been purchased. Now we will mix the various commodities to make the quality that matches the required standards of the purchasing companies”.

Sometimes the traders also mix the quality of commodities so as to increase their profits. One private partner employee described this as follows:

“The mentality of the trader is such that they sometimes purchase the low quality commodity. Then they mix this commodity in the high quality commodity and increase its weight. Sometimes they buy three or four different qualities of the grains; some high, some low and some medium and they mix these different qualities and sell the commodity in the market”.

Apart from the business strategies explained above the stakeholders also made reference to certain other strategies such as selling commodities through multiple sources, networking with other traders, etc. Since, these strategies would seem to be normal business strategies, I am not describing these.

7.1.2.5 Cultural strategies

7.1.2.5.1 Continues with traditional processes

The traders are interested in continuing with traditional processes especially for submission of trade records. For instance, the traders are accustomed to submitting their trade records every ten days though the yard rule prescribes a time frame of fifteen days. With the implementation of the current information system, it has become mandatory to submit the records every fifteen days. However, the traders prefer to continue with their traditional
practice of submitting the records every ten days. One private partner employee described this as follows:

“As per the rule, a trader is required to submit the records for all his transactions every fifteen days, but in this yard, the traders submit this record every ten days. They are just continuing with their traditional practices as they are more suited to it and they do not want to change these practices”.

When I asked the same question to a trader his response was as follows:

“See if you look at the root of the word Pakshik (the Hindi name for the document in which the traders submit their returns), it is in the Sanskrit word Paksha. A paksha is of fifteen days and refers to the waxing and waning cycles of the moon. This has been a traditional practice to submit the records every fifteen days, but the government has never implemented it. So we have been submitting the records as per our convenience and usually once every ten days”.

7.1.3  Government officer strategies

Government officers use strategies that can be classified as bureaucratic strategies, process strategies, power strategies, political strategies, business strategies and cultural strategies.

7.1.3.1 Bureaucratic strategies (Organisational culture)

7.1.3.1.1  Displays authority

Usually, the yards are located in areas surrounding the slums. In these slums, sometimes notorious goons and thugs take shelter. Some of them or their relatives may work as labourers in the yard. Thus, the government officers are fearful of them and hence prefer showing their authority to keep the situation in control. One of the government officers described this as follows:
“You need a tough person here, one with a baton. You need to show your strength, and then the goons will fear you. In a month or two, you need to display your authority. That keeps things in control. Because we are amongst the goons and if we do not show the strength, we will be in a big problem”.

The government officers also display such authority against the poor farmers. Such an incidence happened while I was visiting the yard with a government officer. During the visit, a farmer approached the officer to inquire about the latest commodity rate:

FARMER (to government officer): “what is the model rate of gram today?”

GOVERNMENT OFFICER (to farmer): “I do not like talking on the road, come to my office if you want to know the rates”.

FARMER (replies back to government officer): “I am just asking for the mandi rates, nothing big, what is the problem in telling the rates to me now”.

GOVERNMENT OFFICER (ignores the farmer and walks ahead).

Sometimes, the government officers also show their authority to the private partners. The government officers expect that the private partners should report to them regularly. The private partners, on the other hand, are not accustomed to such rigid, hierarchical behaviour, and this often creates conflicts between them. The result is that the issues that could be sorted amicably take a derisive turn. One such incident happened while I was interviewing a government officer and a private partner employee approached the interview room:

GOVERNMENT OFFICER (to the private partner): “Yesterday I warned your site in charge. I told him that if you do not report to me properly then I will open all the clauses of the contract, and you will see fierce opposition from me. I have been tolerating you people for a long time now. Till now I have always considered you as
mandi employee, I have never made a distinction between you and my own employees”.

7.1.3.1.2 Bears the field expenses of seniors

The organisational culture of the public sector organisation in India is such that the field expenses of the seniors’ visits are borne by their juniors. In the yard also such instances are common. Such an organisational culture often conflicts with the private sector culture. A private partner employee explained this as follows:

“How if any senior officer, from the head office, comes for a visit to the yard, then all his expenses are borne by the juniors. However, I have never seen a junior claiming these expenses from the yard. I fail to understand this, why the junior does not claim these expenses. Is it not his right, is he not entitled to claim these expenses? What is the reason? Why he does not claim these expenses? Sometimes the juniors also ask the private partner to pay for these expenses. Why should the private partner pay for these expenses?”

7.1.3.1.3 Build a team of like-minded employees through transfers

Government officers develop a team of their trustworthy employees through promotions and transfers. One officer explained this as follows:

“I knew one officer, who happened to be the senior of the officer, at the head office. I told him that if you can make a call to your junior then perhaps I can be transferred there. So this senior officer suggested that let my file reach there, and then if the transfer is being hampered, then he would talk. This senior officer was behind my transfer to this place because I had earlier worked with him in another yard. Then he
became the in charge of this yard so he felt that he should have some of his people here so that he is informed properly, so he brought me here”.

7.1.3.1.4 Sending notices to juniors

The senior government officers often send notices to their juniors. Such notices are sometimes sent without any effort to understand the situation of the employee. According to one government officer:

“If the income of the mandi falls, senior officers will certainly send us a notice, but if the income goes up, seniors will never issue us a certificate”.

With the project of computerisation, the notices are sent to the junior officers for the mistakes done by the private partner. A government officer mentioned this as follows:

“Our irony is that the board does not question the private partners for their mistake; instead they send us the notices asking for explanations”.

7.1.3.1.5 Non-seriousness to departmental notices

The government officers have over the years acquired the tactics of answering the departmental notices in a manner so as to please their seniors. One government officer described an incident in which the senior officers sent notices to some junior officers over the issue of pending service charges from the traders. The junior officer described this as follows:

“While we looked into the pending service charge payments, three officers were transferred and seniors asked us to provide explanations for these pending service charges. So we wrote all the details in the reply. In most of the cases, we would find that the yard officers do not care to reply to such letters or would send a reply that satisfies the officers”.
7.1.3.1.6 Threats about confidential reports

The government maintains a confidential report (CR) of each employee. CR is written by the seniors for their juniors and forms the basis for staff promotions. Often the seniors threaten the juniors of writing adverse comments in their CR. One government officer described this as follows:

“There is something called the CR that is written by the senior officers for their subordinates. So I submit a report to my seniors on the works that I have accomplished during my tenure, this report is analysed by my seniors and then they write a comment about my work. This report is decisive in the promotions. I did not submit my report to the senior and yet he presented the report on my behalf and the deciding authority gave a lower grade to me. He has made a comment on my CR ‘that his behaviour is extremely bad, highly objectionable and the data that has been presented by him are all false and misleading’. So my promotion was cancelled”.

7.1.3.2 Process strategies

7.1.3.2.1 Levying penalty and cancelling license

The government officers monitor certain traders about whom they have suspicions of service charge evasions or malpractices in trading. Often such traders are observed by the government officers and an appropriate penalty is levied on them. One government officers explained this as follows:

“If we have doubt on any trader then we will chase him, we keep an eye on him, we observe his transactions and whenever there is doubt we catch hold of him. In such cases we charge a penalty about five times that of the mandi charge. We can also cancel his license”.
7.1.3.2.2 Resorts to clauses of contract in dealing with the private partners

Certain clauses of the contract between the private partners and the government officers are not implementable in the field. For example, the current contract contains a clause (MPAMB, 2004 clause 5.3 pp 8) that mentions that the data for the auction contracts and weight slips will be captured by the private partners through hand held electronic terminals. In some yards with a large crowd, it becomes impossible to capture these transactions through hand held devices. Hence, the private partners rely on the government records. This is against the contract agreement. However, this clause is overlooked by both the private partners and government officers. Sometimes, the government officers feel that their authority is neglected by the private partners or that the working of the private partner is negatively affecting their career records. In such situations, the officers become too strict in adhering to the clauses of contract between the private partners and government officers. This was revealed from the statement of a senior government officer. The senior government officer was sent a notice by the head office for not recovering the outstanding service charges against some traders. According to him this notice was sent to him as the private partners had entered the data incorrectly. His response was as follows:

“If your data entry problems create a situation for me in which I am being given notice by the authorities, then I will make sure that you work properly. I will not allow you to enter the data from my records; you will have to enter the data on your own. I will not provide you with the auction slips or the weight slips. As per the contract I need not provide you with these slips, and you are required to do the data entry on your own. You know it very well that if you will do the data entry on your own then it will be a big problem for you”.
7.1.3.2.3 Overlooks the entry/exit of commodities

Most of the yards require an entry fees ranging from two to five rupees. Sometimes the employees at the entry gate do not record some entries. By doing so, they can siphon the entry fee collected. The entrants do not care to collect the entry slips or often are not aware that such entry slips should be collected. I observed this when I was visiting the entry/exit gates of one of the yards. I saw that for some entries/exits the fee was collected, but no slips were issued. The government employees and the private partners mentioned the following:

“There are so many people entering and exiting from here. There are small vehicles and the large vehicles. Each one carries a different commodity, and there are so many people, sometimes they do not want slips”.

Another senior government officer agreed that sometimes the government officers ignore certain commodities. According to him:

“See I know the person who monitors the gate, also manages a mobile and a motorcycle. Given his salary he cannot afford these things, but he manages by ignoring a few bags that enter the yard”.

7.1.3.2.4 Stops the payment of the private partner

In situations when the conflict between the private partners and government officers escalate, the government officers stop the payments of the private partners. In the yard, serious conflicts emerged between the private partners on issues related to data entry mistakes, inaccurate reports, etc. Eventually this led to the stopping of the payments of the private partners. One private partner employee revealed this as follows:

“It is not wise to suspend some government officer or to stop the payments of the private partners. Instead, it is better, improve the process. If the government keeps
blocking our payments, this will not result in improvements. Orders have been issued that our bills should not be endorsed by the signing officers. Our seniors are depressed. They are very unhappy about the way government machinery works in this state. They have issued directives mentioning that this is the private partner’s last chance to improve and that our payments will not be cleared”.

One senior government officer accepted that the payments of the private partners were stopped and that this was due to their own mistakes related to data entry. He mentioned the following:

“See these are the reasons that their (private partner’s) last payment has not been cleared”.

7.1.3.2.5 Ignores the conflict or prolongs it

Conflicts between stakeholders are common in the yards. These relate to various issues such as queue formation, quality of commodity and timing of auctions. It is a natural expectation that the government officers will make sincere efforts to resolve such conflicts. However, the government officers often feel helpless in resolving such conflicts and try to prolong it. This is revealed from a discussion between a senior and a junior government officer. The discussion took place after the traders started opposing the change in auction time. The following discussion took place:

JUNIOR EMPLOYEE: “Sir the traders are not starting the auction. They are adamant. They are asking that the mandi inspector or the auctioneer should be called immediately.”

SENIOR OFFICER: “Ok I will try to send someone. Maybe you also do not go amongst the traders, sit inside here. Do not go there, let it be…”
JUNIOR EMPLOYEE: “I have already left the scene…I came here…”

7.1.3.3 Power strategies

7.1.3.3.1 Puts pressure through other government departments

The government officers often pressurise the private partners through other government departments. For instance, the private partners were pressured through the raids by the income tax departments. One private partner employee explained this as follows:

“Yes there was this news regarding the income tax department’s raid on our office. See XXXX (mentions the designation of senior government employee), he is no doubt an extremely capable person, but his intentions are not good, that is why these raids have taken place”.

7.1.3.3.2 Resist the presence of private partners at the check posts

The interstate check posts are the points from where the commodity passes from one state to another. Often the check posts are also hotspots of corruption. The computerisation of check posts is also a part of this project. The government officers resist the presence of private partners at the check posts. A private partner employee explained this as follows:

“At the check posts you will see that the government officers sit at the check post i.e., at the actual point from where the vehicles leave the state and enter other state. On the other hand, the private partner employees are forced to sit at the office which is three kilometres away. By sitting so far from the border, we cannot monitor the passing of vehicles and their service charge payment status. If we also start sitting at the check posts, then we will have to verify the data of each vehicle passing and its ‘no objection certificate’ and this will reduce corruption and hence they have made us to sit around three kilometres far from the check post”.

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7.1.3.4 Socio-cultural strategies

7.1.3.4.1 Consideration to the socio-political status

In dealing with the other stakeholders, particularly the traders and farmers, the government officers’ decision-making is influenced by factors that are above rules and regulations of the market. Over the years, the officers have developed a strategy of first acquiring the knowledge about the background of the person and then dealing with his concerns. The issues are not resolved as per the applicable rules. One of the government officers was frank to admit this and mentioned as follows:

“This organisation presents a classic case of working of a government functionary. Everyone is free here; he can behave the way he likes. Here if, there is slightest problem in any process such as auction or weighing, then the person comes here to fight with me. They know that they are talking to a government officer, and so he can be suppressed. They can make my complaint any time and so they come here and start fighting. So what I have to do is that I need to look at the overall background of the person and then I have to deal with him. If he has a political background, he needs to be treated differently. So I have to look at the background of the person first, and the booklet on the rules and regulations of the yard is kept aside. See we run this place with our tact and not with the Act”.

7.1.4 Private partner strategies

Private partners use certain strategies that are classified as information, business, process, organisational and cultural strategies.
7.1.4.1 Information strategies

7.1.4.1.1 Manipulate facts/reports to justify their presence

The private partners often misrepresent the interpretations of the reports in order to justify the improvements due to computerisation. One government officer explained this by providing the following example:

“I will give you one more example of the…tricks that private partners play to prove the effectiveness of the IS. The traders submit their records of the transaction usually after ten days. For instance for the trade done between the first and tenth of a month, the trader submits the record on eleventh. Similarly for the next ten days, the records are submitted after twentieth. Obviously, if you check the computerized records on the fifteenth, it will show that some traders have not paid their service charges. So the private partner reports a recovery from the trader, when in effect the truth is that the trader has not yet submitted the records. So the private partners do such false reporting to show that the IS has been successful in recovering the service charge payments. I can say this thing on behalf of the entire board that just to prove that they have made a positive impact on the yard revenue they present wrong information and do all kinds of manipulations”.

Another government officer described that sometimes the private partners do false propaganda of using certain technology. For instance, the contract demanded that the private partner, in the pilot study, put in use a smart card. This smart card was to be provided to the farmers, and it would record all the farmer transactions. However, the government officer mentioned that the private partners never used such a smart card, but claimed that they had tested such a smart card. According to the government officer:
“For example, take the case of smart card. Now they say that the farmers tore these cards or did not return these cards. They make such false propaganda while, in actuality, I did not even see the smart cards being run for a day”.

7.1.4.1.2 Provides general reports rather than yard specific reports

The reports generated by the private partners are sometimes not yard specific. The private partners have a general reporting structure for the entire state. The different information requirements of yards are not met. One government officer explained this as follows:

“Here in our own office we repeatedly asked them to insert another column in their report. This was related to the local transactions. We asked them to provide us the details of the local transactions. We told them to show us separately: the transactions of the local yard, of other yards within the state, of out of state … this is just an example. So there reporting is not as per our requirements”.

7.1.4.2 Business strategies

7.1.4.2.1 Sub-contracting

The private partner had further sub-contracted a part of their work to certain other independent contractors. According to one government officer, sub-contracting had adversely affected the IS implementation. He described this as follows:

“Fundamentally what has happened is that the government contracted this work to a company. Now this company contracted this work to other company and then it was further sub-contracted to another. So that is what has happened, and a contractor in India usually has a tendency to minimise the expenditure and maximise the profit. There is no care for work quality”.
7.1.4.2.2 Deploys less and low quality human resources

The private partner’s objective is to maximise the profit and reduce the cost. One way to reduce the cost is to hire fewer and low-skilled human resources. The private partners hire less staff in various yard processes such as *auction* and *weighing*. One government officer explained this as follows:

“The private partner is not deploying adequate number of employees at auction and weighing points. Each auction spot requires at least two employees. Similarly, there are so many weighing points. In this yard, they will need to have more than three times the employees that they have currently”.

Also, the private partner employs human resources that are low-skilled. A government officer mentioned this as follows:

“The private partners have deployed less number of employees, and also the quality of staff is low. This impacts data entry. That is what they do”.

7.1.4.3 Process strategies

7.1.4.3.1 Enters data without any verification

The private partners do commit mistakes related to data entry. Also, sometimes the data entry becomes highly mechanical, and human discretion is not exercised. One government officer mentioned that sometimes the private partners enter data even for the days when the yard was not functional. The government officer described the following instance when the private partners entered data even for those days when curfew was imposed in the district because of communal riots:

“I rebuked the private partner employee yesterday. There have been fierce data entry problems. The transaction data have been entered for the days when there was curfew
in the town. There was curfew in town for four days and obviously the yard was closed”.

7.1.4.4 Organisational strategies

7.1.4.4.1 Emulates the bureaucratic style of working

The private partners often emulate the bureaucratic style of functioning of the government and start functioning like a government bureaucracy. This has an adverse impact on IS implementation because the private partners, instead of providing relief from bureaucratic hurdles, themselves accentuate it. A government officer revealed this as follows:

“If we ask for any new information or any new module, they say that the required information or module can be generated only after the approval or sanction from the mandi board”.

The same officer presented another example that revealed the working of the private partner:

“If I will give an example of the things that they (private partner) do. There is a module in their software for the salary records of the mandi employees. We were instructed by the authorities in the board that we should help them in the computerisation of the salary records. So we were asked by the establishment section to help this process. The private partners wrote us a letter asking that we should provide them the required information related to employees and their salary records. This meant that we should provide them the data in a format. Obviously this implied that we first do the data entry ourselves and then provide them the data. After some time when we asked them as to why they have not started with the data entry of the salary records? Their site in-charge replied that they had already written a letter to us asking for the required information. Now it is their responsibility to enter the data for the 300 staff employed
here. If we are asked to provide the data to them, obviously we will need to do the
data entry ourselves. So then what’s the work of the private partner? We do not have
staff for our own works, and they expect that we will have the staff to enter the data of
300 employees. So we told them clearly that our responsibility is to provide you with
the records and not the data and so we will provide you the records and you are
supposed to feed these records in your system”.

7.1.4.5 Cultural strategies

7.1.4.5.1 Propensity for not fulfilling the contractual obligations

It seems that the private partner does not care enough to fulfil each and every clause of the
contract with the government. Sometimes they take some of the clauses too lightly which has
an impact on IS implementation. For instance, the private partner had committed to capturing
the data for various yard processes. However, instead of capturing data by themselves, the
private partner relies on the records of the government. One senior government officer
explained this as follows:

“See this problem related to data capturing should not arise because the private
partners have committed that they will provide a particular number of staff for each
yard. So now it is their obligation to provide the agreed number of staff. If the private
partner has agreed to provide the staff support then they should do so. After all, they
must have also agreed to the contract after certain assessment. If you (private partner)
sign a contract worth 60 million rupees, you are required to abide by it. It is not our
problem. There are various other such examples that come from time to time, but they
(private partners) are not even fulfilling their basic obligations. It is a basic
expectation that the private partners will fulfil their basic obligations”.
I discussed the same issue with one of directors of the private partner, and his response was as follows:

“Our agreement with them is to provide a staff of four data entry operators and one site in-charge at each site. In certain yards, we are providing much more staff than this because there the transaction volume is high. Obviously we have to cut manpower from the yards where there are few transactions”.

### 7.2 Trust issues amongst stakeholders

Discussions with the informants indicate that stakeholders blamed each other for problems in IS implementation. This indicated a high level of mistrust between them. This is elaborated for each stakeholder below.

#### 7.2.1 Private partners blame other stakeholders

The private partners blamed the government for corruption, inefficiency, hegemony, lack of seriousness about the IS project, lack of support, lack of appreciation for the efforts of the private partners, unrealistic expectations and their inability to adapt to computerisation.

##### 7.2.1.1 Corrupt government

According to one private partner employee, corruption was rampant within the government and everyone in the governing structure was involved in corruption. In such a situation, successful IS implementation was not possible. This was explained by a private partner employee as follows:

“Even the political leader, when he comes to the yard, wants something. If the MD comes to the yard, he wants to have his bag full. The government employees also want something. So if, this style of working has to continue; computerisation makes
no meaning at all. With this kind of work culture, let computerisation be scrapped and then let them (government officers) do what they want”.

**7.2.1.2 Inefficient government**

7.2.1.2.1 Lack of ability/competence in government employees

The private partners felt that the government employees were inefficient, and that the government was ignoring the faults of its employees. One private partner employee mentioned this as follows:

“And today if we tell them (government) that their employees are committing mistakes, they say that the government employees do not have the proper capacity as they are uneducated and illiterate. If that is true, they should least not blame the private partners. If they want to run this project on computerisation they should run it properly, else they should discard it”.

7.2.1.2.2 Lack of willingness to implement rules and regulations

Another private partner employee felt that the government employees were not implementing yard rules and regulations with sufficient rigor. The feeling of the private partners was that the government officers were, at times, too liberal in implementation of rules. One private partner employee explained this as follows:

“At one of the project sites, the traders had only submitted the records till December 2009. They have not submitted their records after that. It is over a year now. As per the rule the traders must submit the records in fourteen days. Now this is not our fault. It is the fault of the government. This is the work of mandi inspectors and not ours”.
7.2.1.2.3 Lack of adequate staff

At another yard, another private partner employee blamed the government for staff shortage and mentioned as follows:

“I am talking about the mandi manpower. See the problem is not with the private partner capturing the data. The issue is with the mandi staff. They do not have enough man power…”

7.2.1.2.4 Nonchalance to employee mistakes

Another employee mentioned that the government was ignoring the faults of its own employees and was instead blaming the private partners for all the implementation problems. According to the private partner employee:

“The XXXX officer has issued directives mentioning that this is the private partner’s last chance to improve and that our payments will not be cleared unless we improve. The government is ignoring the faults of its people and is blaming the private partners”.

7.2.1.3 Lack of seriousness in government for IS implementation

The private partners blamed the government for being non-seriousness about the project implementation. One private partner employee described this as follows:

“The government is at fault in this implementation. In a span of five years, they have not given any attention to this project. You have seen all the reports and documents that we provide. If we are doing right things, why should we be afraid of the government? We have received so many letters from the government blaming us for something or the other. We have repeatedly informed them about the problems that we are facing, but they have hardly acknowledged it”.

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7.2.1.4 *Lack of adequate support from government*

The private partners blamed the government for not providing adequate support for the IS implementation. One private partner employee explained this as follows:

“We are running the entire computer network and the government does not provide us proper documents. They provide us no help or support. Furthermore, they keep sending us letters. This will not do, that is not right”.

Another private partner employee described the lack of support as follows:

“Yes it is mentioned in our contract that it is our responsibility to implement computerisation, but at the same time, it is also mentioned that if there are any problems related to the data capturing then the government will help us, but we are not getting any support from the government”.

7.2.1.5 *Lack of trust by government*

It seems that there was a strong sense of lack of trust between the private partners and the government. The private partners felt that the government did not trust them, and hence, certain processes of IS implementation, were not yet fully allotted to them. One private partner employee explained this as follows:

“We have recently received a directive that the entry slips should be issued from the computers only. So since December, we are issuing the slips only through computers, but the board has not allowed the same for auction slips. The board does not trust us and so they have not allowed us to issue the auctions slips”.
7.2.1.6 Inability of the government to adapt to computerisation

The private partners blamed the government for not adapting to computerisation. They felt that the government was not making real changes to suit computerisation. One private partner employee explained this as follows:

“The truth is that the mind-set of the government has not changed to suit computerisation. They neither understand the importance of computerisation, nor do they want it to be successful. Now that, we are in the business and we have started controlling the yards through the computers, they want to deny our efforts”.

7.2.1.7 Lack of appreciation by government

The private partners also felt that the government was not appreciating their efforts to implement IS. One private partner employee mentioned this as follows:

“The government pays a salary of around twenty five thousand rupees to the yard secretary. And just see what they do. They catch a vehicle that is carrying undeclared commodity, and then they accept the bribe of a few thousand rupees, and allow the vehicle to pass. If we really wanted to abuse the power that we have because of computers, we could have easily done so. We are entering the data of the traders, so we can easily take bribes from the traders and manipulate the records in favour of the traders. We have not done so because, that is not our intention, and we have so much of control on our data entry team. So after all the effort that we are putting in, if we are continuously blamed by the government then it is distressing”.

7.2.1.8 Vulnerability of the government to political pressures

The private partners felt that the government was susceptible to political pressures. This had an adverse impact on IS implementation. One private partner employee mentioned this as follows:

“I will also give you an example. At one of the yards, the electronic weighing bridges have been functional for quite long. It is expected that the weighing will be done on the electronic bridges. Moreover about two years back the government had issued orders that if the manual machines are seen in the yard, case will be launched against the traders using these machines. In spite of this, you can see manual machines there. This is purely because of the political pressures. What system does the government have? Why cannot the authorities see this?”

7.2.1.9 Private partners blame farmers and traders

Apart from blaming the government the private partners also blamed the farmers for quality manipulations and signing multiple auction contracts. They blamed the traders for doing unregistered transactions, record manipulations and smuggling the commodity to other states. These issues have been discussed in this chapter under the subsection on stakeholder strategies. It should suffice to present the following statement of a private partner employee that indicates that the private partners blamed the farmers and traders, apart from government, for the present problems of the yards.

“Who should be blamed for the problems in the yard? The farmer who manipulates the quality? Or, the trader who under reports the commodity...

Another private partner employee blamed the farmers for their behaviour and mentioned that the problems in yards cannot be resolved because of the farmers. According to him:
“Our senior says that the yards can never improve...see you cannot change the farmers...and the farmers have the largest population in the yard...so the system cannot be changed fundamentally...”

7.2.2 Government officers blame other stakeholders

7.2.2.1 Lack of fulfilment of contract obligations by the private partner

The government officers strongly felt that the private partners were not fulfilling their obligations under the auction contract. According to one government officer:

“It has been clearly stipulated in the contract that they should collect data on their own. Suppose we have a vehicle entering the yard premises then their work is to generate a slip through the computer which has details of vehicle number, commodity, quantity, etc. They are supposed to issue a computerised slip, but what they do is something else. We have a department person sitting on the gate. This person collects the entry fees and gives a slip. So the private partners take the office copy of the slip and feed the data in their system. That is not the proper way to do it”.

Another officer described an instance of non-fulfilment of auction contract as follows:

“They are not even fulfilling five per cent of what they have committed in the contract. So obviously the project is bound to fail. They are just doing one thing. Entering the data from our records, nothing more”.

Another government officer reiterated this and mentioned as follows:

“See they take the help of our records to do the data entry. Our employees fill in the various details, in the record books. The private partners take this data. They should take data on their own, directly from the field. This is not what they have committed in the contract”.
7.2.2.2 Incorrect data entry by the private partner

The government officers also blamed the private partner for frequent mistakes in data entry. This was observed while I was interviewing a government officer. One of the private partner employees entered the room, and the following conversation took place:

GOVERNMENT OFFICER (to the private partner): “look who has come today. Welcome, please come, most welcome. It is a pleasure to have you here (speaks sarcastically). See we are getting a lot of notices from the higher authorities because of you people. So much so that it is difficult for us to continue with our job. Who is the in charge of your office today? See the in charge has today given a list of 72 NOC. It is full of mistakes”.

PRIVATE PARTNER EMPLOYEE: “see there is no fault with the list of 72 slips as these have been generated from the system. The system has generated the list it is not our fault”.

GOVERNMENT OFFICER (to the private partner): “It is your fault because the data has not been fed properly. More than fifty per cent of the data is wrong. You have entered the data for the days, when there was curfew in the town. Also, there have been at least two Sundays. So the effective working days were very less. You should consider that while generating a record of the service charges, you should consider the non-working days. Is this my fault that out of the 14 days, we had four days of curfew and two Sunday?”

7.2.2.3 Lack of integrity in the private partner

The government officers also felt that the private partners were not working with integrity and commitment. They felt that the private partners’ were only working for maximising their profits and were inclined to prove the efficiency of the IS by manipulating the reports. I have
described such a perception about the private partner in the sub section of ‘Sub-contracting’ under the private partner strategies. A brief version of excerpt is as follows:

“Our intentions are not honest. I will give you an example to prove this. The traders submit their records of transactions after ten days of trade”.

7.2.2.4 Lack of commitment and sincerity in the private partner

The government officers blamed the private partners for lack of commitment to the project. According to them the private partners were not committed to resolving the problems in project implementation. One government officer mentioned this to me as follows:

INTERVIEWER: “Sir I will tell you the perspective of the private partners. The private partners say that it takes around 45 minutes for the complete process of weighing. It is not possible for them to keep a staff deployed for that much time while the other mandi processes are being conducted”.

GOVERNMENT OFFICER: “See if that is the case, then we are here to resolve such issues. They should have brought this issue to us. They could have made some effort to discuss this with us, but they never did, they never made an effort for resolving such issues”.

The government officer further mentioned that rarely any senior private partner employee visited the project site. According to him:

“The entire management at the site is done by the data entry operators. We have not seen any of the senior officers of the private partners visiting the site”.

The officer further added that:

“They use all our resources. They have our room, chairs, fans, etc. and yet they keep blaming us for their mistakes. If you go to their room, you will see that a lot of our
record books are hither-thither on the floor. These are all our records. Now what if one of the books is lost? There is no one to catch hold of them. This project has been running for six to seven years now, and there has been no progress. Most of their employee joined as data entry operators. The same employees after few months are called as the in-charge or manager but, their mentality remains that of the data entry operators. They said that they will make this place as their model, but even here they have not been successful”.

Another government officer mentioned as follows:

“They do not understand their responsibilities. See the team leader work responsibly but the others they just want to finish off the work. They do not care about its quality; they do the data entry because they have to complete it”.

7.2.2.5 Incomplete understanding and lack of initiative by private partner

According to the government officers the private partners were lacking a thorough understanding of the yard processes. They were also not inclined to take any initiative to understand the yard processes. This often resulted in a data reconciliation problem. One government officer described this as follows:

“See there are a lot of things that they do not understand. For example, suppose we have issued a hundred auction slips in a day. That means there have been hundred auction-slips and hundred weight-slips. Often there are some instances when the farmers and traders have a dispute, and they do not want to trade any further. So these auction slips, should be cancelled. In the manual process, this is done on papers. The trader and farmer submit an application, but the private partners do not update this cancellation in their system. This creates a problem and our records and their records
do not match. Sometimes they do not enter the data on arrivals properly. So the private partners do not bother about understanding such issues”.

Another government officer mentioned about the lack of initiative by the private partner as follows:

“There are various things they can do to detect the cases of service charge evasions, but they only see the figures in the sale voucher. They just see whether the entry of the weight and auction rate in the sale voucher matches to the records of the auction slip and the weight slip. They do not take any other initiative”.

7.2.2.6 Government officers blame farmers and traders

The government officers blamed the farmers for signing multiple auction contracts, exercising hegemony through physical threats and resorting to political strategies such as agitations. They blamed the traders for delaying the payment to farmers, manipulating the records, bribing the weight certificatory and using political means to pressurise the government. These have been discussed in this chapter under the sub section of stakeholder strategies.

7.2.3 Traders blame other stakeholders

7.2.3.1 Corruption by government officers

The traders blamed the government officers of corruption. One of the traders mentioned this as under:

“The truth is that if the mandi employees collect their service charges properly, without any corruption, than the yards will earn a lot more”.

32 The traders did not mention the role of the private partners during the interviews.
7.2.3.2 Unfair tax regimes imposed by the government

The traders felt that the government was imposing certain unnecessary taxes on the traders. According to the traders the government wanted to destroy the trade houses of the state. One trader explained this as follows:

“Around 7.20 per cent is the total tax that the traders have to pay in the trade of soybean…of this, yard service charge is two per cent, and 0.20 per cent is the tax for homeless people. This tax for the homeless was not there till 97-98…this tax was initially applied to the grain merchants only…and at that time it was told that this tax has been applied to help Bangladesh…and the tax will be eliminated after some time…but the government is keen to fill its treasury…and so the tax is still continuing…from 9th January 1999 the government has also introduced one per cent entry tax in oilseeds…it is the state policy to finish the trade houses in the state…see if you are charging 7.2 per cent of tax then, on one quintal of soy bean, you are charging around 160 rupees…this is in the name of yard service charges, value added tax and entry tax …so once a deal is registered at yard all taxes are to be paid…”

7.2.3.3 Traders blame other traders

The traders also blamed other traders and industry houses for doing unregistered deals. Such deals resulted in unfair competition, in the market. One trader described this as follows:

“this results in unfair competition… the traders who work in the grain yards are at disadvantage…the traders who procure the commodities directly from villages, they do not pay any service charges to the government…this also results in less arrival in the yard…some companies do not register their purchases. So service charge means nothing to them…the trader also thinks of earning more and so the deal is not registered…”
7.2.4 Farmers blame other stakeholders

7.2.4.1 Cartel formation by traders

The farmers complained that the traders formed cartels and fixed the auction prices. One farmer described this as follows:

“Often the traders come together and decide an auction rate. They do not raise their auction rate beyond that. In front of the yard inspector, they show as if they are quoting higher prices, but actually they do not. So all these traders come together and exploit every bit of the farmer. They just squeeze him completely”.

7.2.4.2 Corruption by government officer

The farmers also blamed that the government officers were corrupt and favoured the traders in the auction. One farmer described this as follows:

“The government officers take bribes from the traders and are like a puppet in the hands of the traders…they do not auction the commodity properly…or inform the traders about the best quality commodity available in the yard…so all traders accumulate to buy the best commodity…”

7.3 Negative perceptions about other stakeholders

It seemed that the stakeholders had negative perceptions about other stakeholders. For example, one private partner employee mentioned that both the farmers are traders were equally crafty and deceitful and that the problems in the yard were, not because of any one stakeholder group. According to him:

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33 The farmers had no direct interaction with the private partners and hence they were not aware of the role of the private partners.
“Sometimes the farmers are crafty and sometimes the traders. For instance, some traders come together and fix the auction prices. So the farmers do not get a fair price. Farmers, on the other hand, sign the contract to sell the commodity, but then do not sell it…then who should be blamed for the problems in the yard? The farmers who manipulate the quality, the trader who under-reports the commodity or the government officer who accepts the bribe?”

A systematic study of the stakeholder perceptions about the other stakeholders indicated that nearly all stakeholders had some reservations about the intentions, value system or character of other stakeholders.

7.3.1 **Farmers are money minded**

According to one private partner employee the farmers were least concerned about the overall system and never adhered to procedural norms of queuing, etc. They were least concerned about the impact of their actions on the society at large. One private partner employee mentioned this as follows:

“The farmer wants to sell the commodity, collect the payment and return to his village. He is least interested in the technology that is used. He seldom cares about the system as such”.

7.3.2 **Farmers are not inclined to save time**

The private partners perceived that the farmers were not inclined to save their time in the yard. According to them saving time was not a priority of the farmers as they always had ample time. It was only during the rainy seasons that the farmers were busy. One private partner employee explained this as follows:

“The farmer is least concerned about time saving. No doubt, he is much concerned about saving money, but time saving has never been a priority. A typical farmer does
not think of saving the time because he is usually free, apart from the rainy season. Also, when he comes to the yard, he knows that he will consume the entire day. So saving time in the yard is not his priority”.

7.3.3 Farmers are cunning
Another private partner employee mentioned that contrary to the popular beliefs that they were simpletons, the farmers were very cunning and shrewd. He explained this as follows:

“It is not correct to say that the yard committee alone is responsible for the problems in the yard. In fact, the farmers are also equally responsible. Farmers are very cunning. Sometimes we consider that farmers are very plain people. We assume that they are simpletons, but they are extremely shrewd”.

7.3.4 Farmers are politically inclined and hegemonic
He further added that the farmers were politically inclined and often created problems in the yard. The private partner employee explained this as follows:

“The farmers often create problems. They go on wreckage. They do politics and become too aggressive. Also, the president of the yard committee is a farmer. The farmers elect him, and so they together do a lot of hegemony in the yard”.

7.3.5 Farmers are greedy
The government officers felt that the farmers were greedy. One government officer explained this as under:

“The farmer wants to get as much money as possible from the sale. If his commodity is sold for 2000 rupees, then he would want that it should be sold for 5000 rupees. He is never satisfied. For example, last year soya bean had touched a record price of 2800 rupees per quintal because of high demand in international markets. So this year also
the farmer will expect it to reach the same level. Even if, the demand is low the farmer will expect the same price”.

7.3.6 Traders are deceitful and treacherous
The general perception amongst the respondents was that the traders were treacherous and deceitful. The respondents felt that deception and treachery are necessary prerequisites for the profession of trading. One farmer described this as follows:

“At the village level also they force the big farmers to purchase from the small farmers at rates specified by them. That is how the traders are; they never speak the truth. If they become honest and truthful, they cannot make money”.

Another farmer at another yard mentioned the following:

“Traders are all culprits, without theft and deceit they do not work”.

Another government officer had the following perception about the traders:

“At the time of purchasing the commodity in the yard, the trader makes sure that the weight is correct. The same trader, however, does not weigh it properly, while selling the commodity as a retailer. For every 250 grams, the weight balance of the trader will weigh only 200 grams. The trader thus cheats and makes money”.

7.3.7 Traders are exploitative
The stakeholders felt that the traders were exploitative. They were exploiting the farmers by various methods such as fixing the auctions, manipulating the weights, etc. A farmer indicated this by the following statement:

“The traders in the yard exploit every bit of the farmer. They just squeeze him completely”.
7.3.8 Traders are quarrelsome

The discussions indicated that the traders were quarrelsome and were inclined to a quarrel on the slightest provocation. One government officer mentioned this as follows:

“Here in Indore mandi you will find that the traders are very quarrelsome. Often the owners of the firms do not come to the yard and instead send their stooges. These people act as if they are the owners. They are snobbish and are willing to quarrel on small issues”.

7.3.9 Private partners are profit seeking

The government officers felt that the private partners were manipulative and were not concerned about the success of the project. According to the government officers, their main concern was to reduce their expenses so as to increase profit. They were least concerned about the impact of their activities on the success or failure of the project. I have presented such a perception, under the sub section on ‘Sub-contracting’ under the Private Partner Strategies. A part of the statement is as follows:

“A contractor in India usually has a tendency to minimise the expenditure and maximise the profit. So that is what is happening they minimise the cost by deploying lower quality of staff, less number of employees…”

7.4 Government employee issues in the yard

The respondents, particularly the government officers, discussed the various issues related to employee dissatisfaction in the yard. The topics discussed under the employee problems included discussions about the attitudes of seniors, lack of dedication, political interference in working, salary related problems, staff promotions and shortage, training and capacity of the employees, long tenure of temporary staff, multiple responsibilities and excessive work pressure on the employees.
7.4.1 Attitude of seniors

7.4.1.1 Apathy of senior officers

The employees discussed the attitude of the senior officers. The employees felt that the senior officers are apathetic to their needs and concerns. A government officer described this as follows:

“Sometimes achieving the target becomes impossible because of natural factors. Agriculture in India is ninety per cent dependent on the wish of the almighty. Sometimes draught and frost destroy the harvest, but for the seniors this hardly matters. They want us to achieve the targets anyhow”.

The officer further mentioned as follows:

“The senior officers in the board are least interested in solving the real problems. They do not want to come here and see the practical problems. When they (Mandi Board) do not want to make any proper use of my abilities why should I take any interest? …Slowly I have now become disinterested in the affairs of the mandi, let it go, who cares?”

The officer also described another situation in which even after his repeated requests about the misbehaviour of an employee, the senior took no action against him. One government officer mentioned this as follows:

“There is one employee who comes drunk to the office every day. Someone complained against him today. So his medical examination needs to be done...Such problems are difficult to solve. The problem is that this employee sits and hobnobs with the thugs of the nearby slums so he may take revenge any time...I have been telling my seniors about this, but the officers hardly care to listen…”
7.4.1.2 Senior officers do not provide feedback to employees

The senior officers do not care to provide timely feedback to their employees. This creates a sense of lack of belonging amongst the officers. A government officer indicated this by the following statement:

“...I am almost going to complete about one and a half year in this yard. During this duration if any of my seniors had analysed my data or my work, given me some feedback, then I would have been very happy, but none of them has ever done that...”

7.4.1.3 Senior officers are on deputation

Discussions from the respondents indicate that the senior officers, especially those on the higher management positions, were on deputation from other state government departments. Such officers serve the yards for a fixed term after which, they return to their parent departments. The middle and lower level employees feel that such officers have no stake in the yards and their only concern is to complete their tenure. One government officer explained this as follows:

“The maximum people here are on deputation. The secretary here is on deputation, the deputy director is on deputation from the agriculture department, the joint director is on deputation from the Land Development Bank. So they have to be here for the maximum of three to four years, and then they would return to their home department. So at the high level we do not have officers who are from this department”.

It does seem that the deputed officers are not particularly well aware of the issues and problems in the yard. One other government officer who was on deputation and whom I interviewed mentioned the following to me before the interview:
“I do not have a background of yard. I am on deputation from the XXXX department. So I can give you only some basic information, but I suggest that you meet YYYY, who is quite knowledgeable and will discuss the issues in greater detail…”

In the recent past, there was a trend in the yard to have officers from the agricultural department, but the experience of such officers is on the technical aspect of agriculture and not the marketing aspect. One government officer explained this as follows:

“Any person can be sent on deputation to the yard but since last few years; there has been a trend to have people from the agricultural department. I am, for example, from the engineering section of agriculture department. My work there was to provide maintenance facilitates for thrashers and harvesters”.

When I discussed with the same officer the issues of commitment of the deputed officers, he mentioned as follows:

INTERVIEWER: “I have heard from other officers that people who are on deputation are not dedicated to the yard as they will go back to their parent department…”

DEPUTED OFFICER: “It is not like that at all. A committed officer will remain committed irrespective of his posting. If that was the case, then why our joint director was sent on deputation? Individuals are sent on deputation so that they can manage the things that the employees from the mandi department could not manage. So people from other department come and implement their vision here. For example, our managing director is an IAS officer, but he is one of the most efficient directors we had. He guides the department and takes it to the right direction. That is what I believe”.

XXX and YYYY refer here to actual the names of officers. These have been replaced with pseudo names for confidentiality purpose.
Thus, it seems that the fact that higher management staff was not from within the organisation was a leading cause of dissatisfaction amongst the middle managers.

**7.4.1.4 Senior officers do not appreciate the hard work**

It seems that the organisation lacked a culture of appreciating and rewarding the hard work of the sincere employees. One government officer shared his experience of posting in a yard that was facing deep financial problems as follows:

> “When I was posted in that yard, the yard hardly had an amount of forty thousand, but within a period of ten months, I changed the situation. When I left the yard, the yard was well off financially, but the Mandi Board did not give any appreciation for it”.

The officer further indicated that this lack of appreciation had become a natural tendency of the senior officers:

> “If the income of the mandi falls then they will certainly send us a show cause notice, but if the income goes up, seniors will never appreciate us”.

**7.4.1.5 Senior officers do not involve juniors in policy formulation**

Junior government officers mentioned that their seniors did not involve them in the formulation of policy. This often resulted in impracticable policies. One middle manager described this as follows:

> “A large crowd of people enters the yard every day. When the policy makers developed the rules and regulations for the yards, they forgot the problems and the evils that are present at the ground level. They thought that only one farmer will enter the yard at a time. He will be issued an entry slip and he will then go for various yard processes. Finally, he will get the payment, and this farmer will return home. They imagined it like this. They never imagined the crowd. They never thought about the
complexities. There is a large crowd coming here with multiple commodities. Even one farmer comes here with ten different commodities. Also if the auction rate increases, the same farmer is tempted to have another auction for his produce. So they do not consider these ground level complexities in their planning. Obviously the result is quite different from what is planned”.

7.4.1.6 Senior officers do not trust the junior officers

It seems that the senior officers did not trust their junior officers, and often sent them show-cause notices, asking for explanations on data reconciliation. The junior members often expected that the seniors would empathise with them on issues of conflict with the private partners. Against this expectation, they often received show cause notices which lowered their morale. One middle manager explained this, while he was narrating an incident to me. The private partners had generated some incorrect reports, and based on these reports some officers got transferred. The middle manager explained this as follows:

“The fact was that the report generated by the private partner was incorrect...yet our irony is that the board does not question the private partner; instead they ask us by sending notices”.

Another officer mentioned similar opinions while discussing the data entry mistakes of the private partners. The seniors often sought explanations form the juniors, on the basis of incorrect reports of the private partner. The manager presented an example as follows:

“Then you get a letter from the higher authorities asking to justify the mismatch between the contract slips and weight slips. So they ask me to explain that: why should action not be taken against me for such a discrepancy”.
7.4.2 Employees are not dedicated

Discussions with the informants indicate that there was a perception that the government employees across the hierarchy were not working with dedication. One private partner employee, while showing me the yard, mentioned the following about the yard secretary:

“The name of the secretary of this yard is...But he comes here occasionally not every day or not even quite often…”

Another private partner employee while describing the lack of basic cleanliness of the yards mentioned as follows:

“With regard to the cleanliness, there are employees here for maintaining the cleanliness, but they do not work with dedication”.

Another private partner employee mentioned that one of the reasons for lack of cooperation between the government and the private partner was that the government employees were not dedicated. The private partner employee mentioned as follows:

“If there is such a government officer, who is sincere and dedicated then we are truly willing to cooperate and abide by him, but there are hardly any such officers now”.

This lack of dedication is because of the job security in the public sector organisations in India. It becomes virtually impossible to remove a government officer even if he has a known history of not working properly. One government officer corroborated this, while reprimanding a private partner employee for the data entry mistake. Because of the data entry mistakes of the private partner, the government officer was sent a show cause notice by his seniors. The officer’s reaction to the private partner was as follows:

“Nothing can happen to me for such mistakes. The seniors cannot hang me. At the most, they can stop my promotions...See the point is what is the accuracy and reliability of your work?”
The same government officer mentioned that high job security was one of the primary reasons for lack of sincerity and dedication amongst government officers.

“In a government system, the job is well secured. This is one of the biggest drawbacks of the governmental system. If I ever commit a mistake, then the government will suspend me. That is the best the government can do. They will suspend me for a few days after which, I will join again, and I will again get full salary. So once my job becomes secured, I become lazy. I will try my best to avoid the work. Ninety per cent yard employees are lazy and inactive. So when the job is secured, an individual is least concerned about the output”.

Another reason for the lack of dedication in employees is that the public sector organisational culture in India is such that it discourages the hard working employees. This could be concluded from the following statement of a government officer:

“Since I reach early at work, the staffs of the other yard are unhappy. They reach their yards much later though their yards start earlier than mine. Their seniors rebuke them, giving my example. So they are now unhappy because of me”.

7.4.3 Political interference

Discussions with the respondents indicate that yards are amongst the initial the platforms from which politicians launch their career. Obviously the employees seldom get a free hand in implementing rules and regulations in the yards. One government officer explained this as follows:

“An employee is comfortable when there is no interference in his working. For example if I go to a trader for checking or enquiry, then I should not receive any calls from the political leaders or the yard president should not tell me to spare some trader. Then I am comfortable with the work... I was posted in the XXXX yard for two times.
A trader there was also a member of the legislative assembly. He won the elections twice, contested for the third time and won the third time. So he has a strong political background. Now his cousins have five licenses to trade in the yard. He has two licenses. They openly do things that they should not do in front of me. If I try to restrict them or to stop them, then I am putting my job in danger. So such things happen in yards”.

A private partner employee presented the attitude of farmers and the yard president as follows:

“The yard president and the farmers are hegemonic. The yard president wants control of everything. He wants to control everyone and so he also exercises lot of hegemony. The secretary is not a servant of the yard president. Even if, the yard secretary tries to accede to the demands of the president, even then he cannot. There is a lot of political pressure on the secretary. Sometimes he may receive a call from politicians, and he has to accede to their orders. So the overall system can be exploited easily”.

The political interference is not merely limited to the traders. The farmers also use their own political backings to fulfil their objectives in the yards. Moreover, it also seems that often the politicians are not fair in resolving the issues and instead they are hegemonic. One private partner employee explained this as follows:

“It is very difficult to change things in the yard. Even a small farmer, threatens the government officers, now and then to complain to the political leader, and then the political leaders come to the yard. There is no problem in their coming to the yard, but then they should do fair justice. If the farmer is wrong, then politicians should reprimand the farmer, but they come here to secure their vote banks. This I think is not fair”.
Such political interventions from both the farmers and traders result in escalation of conflicts. This also impacts the day-to-day working of the yards. One private partner employee explained this as follows:

“The traders exercise a lot of power in the yards. A lot of political leaders also come for their backing. The leaders also come for backing the farmers, and so the political leaders are on either side. So on trivial issues there are conflicts in the yards and often the working of the yards is disturbed”.

Thus because of the political interference, the employees do not get a free hand in the implementation of rules and regulations in the yards.

### 7.4.4 Salary related problems

The yard employees discussed certain salary related issues. The employees in general complained about the low levels of salary. One government officer mentioned the following:

“This is the basic problem in working with the yards. If you get a good salary, you can do admirable work”.

The board plays no role in salary related problems of the yard. Thus in situations of financial crises, the employees are left to themselves without any support from the board. When I discussed the salary issue with a government officer, he described this in detail to me. His description clearly reveals that the lack of financial support from the board is a serious problem in the overall functioning of the yards. The description presented by the officer is as follows:

INTERVIEWER: “so does the salary differ from yard to yard?”
GOVERNMENT OFFICER: “No it is the same through all the yards for the entire state except for the fact some of the salary components such as the house rent; vehicle allowance may be different depending on the class of the city”.

INTERVIEWER: “since the salary of the employees is dependent upon the earnings of the yard committee. Then in yards that are too small, what happens to the salaries if the earning is too low?”

GOVERNMENT OFFICER: “Then they do not get the salaries. The board does not provide any help in that. In the routine, it does not help. Only in exceptional cases the board may provide some help. We have to generate our own salaries”.

7.4.5 Staff promotions

It seems that the promotions of the staff were rare for the middle managers. This resulted in low staff morale and motivation. The middle managers remain at the same position in the organisational hierarchy which results in an overall stagnancy of the organisation. One government officer indicated this as under:

“In 27 years, I got my first promotion. This happened in the year…that I received the order of promotion to the post of...”

7.4.6 Staff shortage

It seems that there was a shortage of staff in the yards. Consequently, there were problems in the day-to-day functioning of the yards. One government officer explained this as follows:

“See I have a very limited staff here. One employee yesterday had a heart attack and so there should be a replacement for this. From where should I send the replacement, should I ask the person who is issuing the no objection certificates, should I ask the gate keeper? I have limited people with me, and most of my energy is lost in such efforts”.
A private partner employee described the man power shortage as follows:

“I am talking about the yard manpower. See the problem is not with the private partner capturing the data or shortage of staff with them. The issue is with the mandi staff they do not have enough manpower”.

### 7.4.7 Lack of training and capacity building

The yard employees lack essential training and capacity building for day-to-day yard tasks such as record keeping. One government officer mentioned this as follows:

“The yard staff has to be properly educated to do calculations, cross check the records, etc., but the yard employees are not adequately trained to perform these tasks”.

One private partner employee explained this as follows:

“The yard employees are old generation employees. They are still working on age old methods and systems. They are not properly skilled, and they do not even know typing”.

Apart from day to day tasks, the yard employees have not been properly trained for the IS implementation project. This was explained by a government officer as follows:

“We were not properly trained to understand our role in this project. Neither the board, nor the NIC\(^{35}\) has done any training to understand this project”.

### 7.4.8 Long tenure of temporary staff

Discussions with the lower level staff also indicate that they work as temporary staff for an unusually long period of time. Obviously this does not bring any form of security to their life

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\(^{35}\) National Informatics Centre, India is a central government organisation in India. It has officers at the district and sub district level. It plays the role of a coordinating and capacity building agency for various e-government and information technology projects.
and makes them vulnerable to corruption. One government employee working at the lower level of hierarchy mentioned as follows:

“My designation is of assistant sub inspector. I started my career about twenty years back from this very yard. I was employed as a contingency employee; muster-based. I worked for about 16 years as a temporary employee, and after working for 16 years, I finally got a chance to become a permanent employee”.

7.4.9 Multiple responsibilities

Often the middle managers i.e., yard secretaries are in charge of multiple yards for some time. It seems that because of these multiple responsibilities, the officers cannot work dedicatedly towards one yard. One government officer explained this as follows:

“So I joined a yard in 1990. Nearby to this yard, there was another yard; the secretary of this yard was removed. I was given the additional charge of this mandi, and so for about one year I was in charge of two yards.”

7.4.10 High work pressure

The yard employees work under heavy work pressure. This is because of various reasons such as lack of staffs, low levels of training or political interventions. Apart from these, there are some other reasons that contribute to the high work pressure of the employee. For instance, often the senior officers visit the yard as part of their routine tasks. These visits require some preparations, and employees have to work on holidays. For example, one government employee mentioned the following when I asked about holidays in the yards:

INTERVIEWER: “is the second Saturday or fourth Saturday off here at the yard?”

36 Under the state government administrative system there are usually six working days in a week but every second or fourth Saturday there is a holiday.
GOVERNMENT OFFICER: “nothing, even I might need to come on Sunday if a senior officer is visiting. Tomorrow, for example, I need to come here so that I can get the premises cleaned for the celebrations of 26th January. I will need to be here till lunch at least. See we do not have any quality of life here in yards. In the mornings, I have to get up early morning to come here. I have to rush in order to encourage farmers to come to the yard. Once I am here, I am completely tied it is like a jail to me. I come here at eight in the morning and am not sure when I would leave, may be six or seven in the night”.

Another employee at a lower level in the yard hierarchy mentioned the following about the working hours:

“The working for us in the yard is too hectic; we work from eight in the morning till nine in the night”.

7.5 **Context of farmers**

7.5.1 **Agricultural practices of farmers**

7.5.1.1 **Choice of crops**

Farmers intermittently discussed their agricultural practices during the discussion. They described various factors that determine their choice of crops. The farmers also discussed their sowing & planting practices and their harvesting practices.

There are various factors that determine the choice of the crops. These primarily included *input requirements* such as water and pesticides, *expected yield* from the crops, *surety* of selling the crops and *distance* of the farm from the yard.

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37 26th January is a holiday in India as it is celebrated as the republic day.
Chapter 7 – Theme Description

It seems that farmers in the state are inclined to choose three main crops, namely wheat, gram and soybean. Farmers choose these three crops because the yield from such crops is higher and they can be readily sold to the government. One farmer explained this as follows:

“Normally farmers prefer to plant wheat in our region because there are fewer hassles with wheat crop. It is a crop for the government as the government is ready to purchase wheat always and offers a minimum support price for it”.

Apart from the output there are other factors such as of input requirements and distance of farm from the yard that influence a farmer’s choice of crop. One private partner employee described this as follows:

“Small farmers prefer planting wheat and gram as these crops require few pesticides. Also if, a farmer has a farm far off from the yard, then he would not prefer to plant vegetables, because he will have to bring them to the yard early morning at four o’clock, else the vegetable will start rotting. So such farmers will not plant vegetables. For instance, there is sponge-gourd it rots fast and so cannot be stored even for a day…”

Another farmer mentioned the following about the water requirements for wheat and gram:

“You need to provide water to the field for gram only once, similarly the lokwan\(^{38}\) wheat variety can ripen with less water and hence the farmers prefer planting such crops”.

Another farmer explained that the rates of the commodity also influence the crop choice. According to the farmer:

“You can get around ten quintals of wheat from a bigha,\(^{39}\) and so you can make around 10000 rupees. The rate of grams on the other hand is just twice that of wheat

\(^{38}\) Lokwan is a wheat variety that is native to this region.
and the plus point is that in grams, we need less water. Grams ripen even if the crop is fed water only once and usually the average yield is over five quintals, even if you get six quintals from one bigha then you make around 12000 rupees and if the rate in the yard is better you may perhaps make more”.

The fertility of land also influenced the crop choice. Certain crop varieties had an adverse impact on the land fertility and certain farmers desisted from planting such crop varieties. One farmer explained this as follows:

“The farmers prefer to plant the lokwan variety rather than the sherbati variety. This is because for lokwan, you get around ten to fifteen quintals of wheat but for sherbati the output is only around five quintals per bigha. Moreover, lokwan also keeps the land fertile, sherbati on the other hand, absorbs the nutrients of the soil fully and so the second crop is not suitable”.

7.5.1.2 Planting and sowing practices

The farmers discussed their planting and sowing practices while describing their context. Under this theme, the farmers described the various seasons, crops planted in these seasons and certain field level agricultural practices. It broadly emerges from these discussions that crops such as wheat, gram and soy bean are planted a few weeks before the rainy seasons (June-July) and this planting continues till the winter. During the winters, vegetables take precedence and various varieties of vegetables are planted. The fields are left dry during the summer months. One farmer explained this as follows:

“We grow potatoes usually, in the month of November to December i.e., in the winters. A normal crop takes around three months to grow. Then we will have the

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39 Begha is a unit of measurement for land. In India a Begha varies from state to state though usually it is slightly less than an acre. In Madhya Pradesh a Begha is equivalent to five eighths of an acre or 3025 square yards.
40 Sherbati is another variety of wheat in the state of Madhya Pradesh.
summers, in summers we keep these fields dry and without crops. Then in the rains, we will plant soya bean, and after harvesting it, we will again either plant potatoes or wheat. We plant vegetables and lentils in the winter months so someone will plant potatoes, someone garlic, onions, wheat, gram, lentils, etc. As of now I have potatoes, garlic, wheat and gram in my field”.

Another farmer who had come to the yard to sell soy bean described his planting practices as follows:

INTERVIEWER: “Do you only plant soybean”? 

FARMER: “yes, we plant soybean, wheat, potato, garlic, onions, etc. This soybean that I have sold today was harvested in the last year’s rainy season. We sold it now, as the rates were better. Soy bean is planted in the rainy season and after soybean we can plant potato, garlic, onion, etc…”

Another farmer described his practice as follows:

“From February till June, we only plant vegetables in the field and after that we plant soybean, just before the rains. This is for the farmers who have other sources of water. For the farmers who do not have other sources such as well, they keep their fields barren for these four months”.

Also, farmers revealed that they would make certain arrangements in the fields, so as to procure seeds for the next harvest. One farmer for example, mentioned that he had a dedicated area in the field which was only used for reaping the seeds. According to him:

“We have kept a separate section in the field for the seeds. So the best seeds are planted here. Presently, we have planted potatoes. We will use these as seeds for the
next crop. We have planted around 20 bags of seeds in this area, and we will get around 70-80 bags as seeds which can be used in an area of six to seven bighas”.

Another farmer described that the seeds should be periodically changed with newer seeds to have a considerable harvest. According to him:

“It is a standard agricultural practice to change the seeds every two to three years...this produces a plentiful harvest”.

7.5.1.3 Harvesting practices

The farmers discussed their harvesting practices. It seems that harvesting practices includes a whole series of practices. The choice of the commodity determines the type of practice, but some practices are common. These practices include cutting of the crops, sorting the commodities, drying these and finally putting them in bags for transportation to the yard. This can be concluded from the following statement of a farmer:

“This crop is of wheat and is still unripe. The crop will ripe in the next 15-20 days. Then labourers and our family members they will cut these manually without the use of the harvesters. Some farmers also use harvesters. The crop will be cut from the bottom, and then a person stands at the back and starts making the bundles. These bundles are taken to a different place and are allowed to dry, and then they will be thrashed by the thrasher. We will then store them into bags and will transport them to the yard”.

Another farmer presented the example related to potatoes. The farmer had come to sell his commodities in one of the yards. The farmer mentioned about the practice of sorting the commodities as follows:
“These potatoes were sold for 130 rupees per 40 kg. These are big sized potatoes that are used for the making of potato chips. At the time of harvest, the farmer gets potatoes of various sizes, so he makes different lots of these. Smaller ones are separated from the bigger ones. These different lots are brought here for selling, and each one yields a different price”.

Apart from sorting the commodities, certain commodities also need to be dried. One farmer described this practice as follows:

“After harvesting the garlic, we need to dry them for a considerable time. There is a lot of greenery in my farm, so we just put these bags below the tree shed, to let them dry. This is done for about a month. If it is not dried then, it may start rotting”.

Another farmer described the process of drying as follows:

“We want that the beans should be dried, and so we spread the beans on the floor and fill them into bags after the beans are dry so that they can be transported to yards”.

7.5.1.4 Hardships of agriculture/agricultural marketing

Discussions with the farmers reveal that agriculture is a highly labour intensive activity. The labour intensiveness of agriculture seems to be an inseparable part of the context of the farmer. One farmer described this as follows:

“Agriculture is one of the most laborious professions; if we do not work hard then we are not able to do agriculture as it goes out of our hands…”

Absence of infrastructural facilities, for example electricity, further aggravates the labour intensiveness of agriculture. One government officer explained this as follows:
“You go to any farm in our state, and you will observe that the electricity is available only in the night. So the farmer works all night to water his field. In the daytime, he may go to the market or take care of the cattle or supply milk to the dairies”.

Another farmer stressed on the labour intensiveness of agriculture and mentioned the following:

“A farmer needs to do a lot of hard work. Each of these bags that you see here is of one quintal, and the farmer has to lift it many times to bring it finally to the yard. We first cut the soybean in the farm, and then we put it in bags so that it can be transported from farm to the drying area. After drying the commodity is again put in the bags. Then the bags are transported in the lorry to the yard. So there is a lot of effort. If we hire the labourers, they will cut the soybean and put it properly in the bag and will charge us 25 rupees a bag to do this. At our own farm, we have to lift these bags up many times. See the labourer lifts the bag once and charges four rupees and we have lifted it for at least ten times, so we have already done a labour of 40 rupees, but that labour is not accounted for”.

Discussions with the farmers reveal their concerns about the distance of the yard from their village. The remoteness of their village requires that farmers make travel and transportation arrangement such as hiring vehicles, etc. Often the poor farmers are not able to afford it and are forced to sell their commodities to the local grocery. One government officer indicated this as follows:

“If there is a small farmer who has produced a few bags, then it becomes too expensive for him to come to a major city. So he prefers selling the produce to the local traders. Sometimes a few small farmers may jointly hire a vehicle and come to the city yard to sell their produce”.
He further described that the farmers have to travel a long distance to reach the yard. According to him:

“The farmers come to this yard from quite a distance. Sometimes it may be as high as 200 kilometres. Also, there might be problems with their vehicle on the way. Often he may arrive late in the evening, when the yard has closed. So he is already late, exhausted and worried”.

The vehicle-related problems were a frequent occurrence. This was corroborated by the following statement of a farmer, with whom I had a pre-arranged meeting:

“There was a little problem with my tractor and so I was late”.

Often the roads abound with dust, and farmers are exhausted upon reaching the yards. One farmer mentioned this as follows:

“Coming to the yard is not very easy. The roads are inadequate and also there is a lot of dust so it is quite problematic and also full of stress”.

The yards lack the basic facilities such as rest rooms and this adds to their strain. One farmer described the plight of the farmers as follows:

“The farmer has to travel early morning or even previous night to be at the yard. Furthermore, there are not facilities in the yard. Those who come in the night sleep for the whole night in the yard amidst the mosquitoes”.

7.5.2 Uncertainty in a farmer’s life

A typical Indian farmer lives a life of uncertainty. This can be inferred from the following statement of a farmer:

“See the irony of a farmer is that he has to work hard when no results are guaranteed…He has to irrigate the field which this demands a lot of physical work,
then you have to cut the crops, process the commodity, and finally take it to the yard. There is too much of physical work, but the outcome of all this effort is not certain”.

There are various factors that contribute to this uncertainty in a farmer’s life.

7.5.3 Weather dependency of agriculture

This uncertainty arises because of uncertain weather conditions. First agriculture in India is monsoon dependent, and second there are occasional hailstorms, which result in, the destruction of crops. One government officer described this as follows:

“Agriculture in India is largely dependent on the wish of the almighty. Farmers who have the stock, let’s say of water, seeds, or fertiliser for a year or two, they can survive. Rest cannot, there may be no rains or there may be sudden hailstorm and the harvest is destroyed”.

The officer further described as follows:

“Climate and weather are important factors in agriculture. Last year, hailstorm destroyed the wheat crops. Most of the farmers of this region faced losses in the agriculture because of that. The hail storm is not good for both gram as well as wheat. Temperature is another factor. For example, grams cannot stand a temperature of around five degrees. A fine layer of hail or snow does not allow proper oxidation, and disturbs photosynthesis, and crops are damaged…and so the farmers do not get the desired yields…”

7.5.4 Role of market-rate fluctuation

Even if, the weather is kind, the uncertainty is maintained because of the fluctuations in the commodity rates. The rates of the commodities are often marked by fluctuations which may result in huge losses. One farmer presented his own example as follows:
“Sometimes the income in the wheat may be as high as rupees fifty thousand per begha. But in other commodities, there is no surety. In some commodities such as potatoes, or onions, there is very high uncertainty. Sometimes you may make as high as fifty thousand rupees per begha and sometime you may get only rupees ten thousand per begha. Onions for example are sold sometimes for twenty or twenty five rupees per kilogram. But sometimes they are sold for two or three rupees per kilogram. So agriculture is also like a gamble, it is like the stock market. Sometimes it goes up and sometimes it goes down. There is no certainty that is how the math is for agriculture”.

Often the farmers consider the previous year’s rates as a gauge of their profits. However, the commodity rate fluctuations often result in low prices of the commodity and the farmers do not reap the expected profits. One farmer described this as follows:

“The usual trend in garlic is that by the end of the season, the rates reach as high as rupees 6000 per quintal. So for the last two years we were selling garlic at the end of the season for around 6000 rupees a quintal. Obviously this year we thought that the rates will reach the same level, and then we would sell it. But then the rates have declined, and now the rate is less than one hundred rupees a quintal. Even when we were stocking the garlic, at that time also for 250 bags, we were getting around a one third of million rupees, but today these 250 bags are not even worth rupees twenty thousand. So imagine the difference in the rates”.

Another farmer also presented his case of the losses as follows:

“Usually the price of garlic is around six thousand rupees per quintal. But this year the price has gone down to one thousand rupees per quintal. At my own place, I have kept around fifty quintals of garlic as stock. We thought that the rates will increase and so
we will sell at a higher price, but the rates did not increase. Also, we purchased from
some other farmers for around 1500 rupees per bag and stocked it for a year. Finally,
we sold it for 400 rupees per quintal so we lost a lot of money. Also, we had
purchased ten bags of seeds for around fifteen thousand rupees. So our total
investment in seed and purchases alone was around 30000 rupees. And then after
doing the entire labour in sowing and harvesting, we finally sold the stock for 20000
rupees. So you can imagine our losses”.

One soy bean farmer presented a similar situation:

“Last year soya bean had touched a record price of 2800 rupees per quintal, so this
year also the farmer will expect it to reach the same level. But till recently the rates
have been low and so the farmers stopped coming to yard for selling their produce.
But now suddenly the rates have increased and so there are a lot of arrivals”.

Apart from the demand/supply reason, often recessionary factors also cause prices to fall.
This was explained by one farmer as follows:

“We thought of selling our produce immediately because of recession. That is why we
also sold two trucks full of soybean. The rates are going down every day. Just two
days before the rates were as high as 2400 rupees per quintal, but today the rates are at
around 2100”.

7.5.5 Payment from the traders
Apart from the market rate fluctuations, farmers also mentioned the uncertainty regarding
payment from the traders. The fact that farmers have a prevailing sense of uncertainty could
be ascertained from the following statement of a farmer:

“See ‘problem’ and ‘farmer’ are synonymous terms in India. Our uncertainty is
resolved, only when we get cash in our hand, but we do not get the payments easily.
Even if, everything is done we have reaped the harvest, processed the commodity, packed the bags, even till that point we are not sure, because if it rains then all the bags get wet, and the entire commodity gets spoiled…”

7.5.6 Overall context of a village

It also seems that a typical village in India has an undercurrent of deception and treachery. This could be inferred from the following statement of a farmer who was showing a farm to me. The farm was not fenced, and I asked him about this, as wild animals could destroy the crops, his response was as follows:

“You can see that the farmer has not fenced his field. If he gets it fenced then in the summers, thieves may cut the fence wires and sell them. These iron wires are sold for nearly forty rupees per kilogram. The other methods of fencing such as using cement poles are too costly”.

7.5.6.1 Exploitation of farmers

Discussions with the farmers revealed that they had a deep sense of exploitation from various agencies, individuals and stakeholders both within and outside the yard. Traders, commission agents and the government officers exploited the farmers in the yards. Outside the yards, the middlemen, the traders, the government agencies and the village based government officers exploited the farmers. The exploitation was done by various means such as excessive commissioning, looting or siphoning off the farmers’ commodity, exploitation by restricting access to commodities and information. One of the government officers who also happened to be a farmer described that everyone in the society exploited the farmers. According to him:

“A farmer is in problems everywhere, in India. Whether it is the yard, the society or anywhere, the farmer is in problems. He is exploited everywhere and hence makes no progress. See let’s take the case of Seed Corporation. The basic function of the
corporation is to provide seeds to the farmers, but they do not provide the seeds to the farmers easily. They harass the farmers. They ask him to come again and again. The function of the Corporation is particularly important. It provides the basic input for agriculture and agriculture is the backbone of India. But they do not help the farmers, so they feel dejected and depressed. Even in the yard the traders do not make payments timely. He gets the payment late in the night or may be next day. I will give another example of farmer exploitation. The farmer produces milk and sells it to the local supplier. The local supplier sells the milk forward so that it reaches the city. The supplier is the middleman; he adulterates the quality of milk by adding water to it. This increases his profit. If someone complains about the milk quality, the middleman deducts the amount payable to the farmer”.

At the village level, village based government officers, exploited the farmers by restricting information to them. One farmer explained this, while showing his farm to me. I asked him about the area of the farm, and the farmer described the measurement using colloquial terms. I then asked him about the equivalence of this term in standard length and breadth. The reply of the farmer was as follows:

“I do not know the exact dimensions for the Kadi. The Patwaris do not disclose the exact dimensions. This is because if they disclose then everyone will start measuring their fields. Who is going to ask for a Patwari then?”

Traders and commission agents exploited the farmers, in the yards. I have discussed the various exploitative practices of the traders, in the section on stakeholder strategies. Here, I discuss the exploitative tendencies of the commission agents. Often the commission agents

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Kadi is a term used to measure the dimensions of the farms in the state.

Patwari is a village based government officer commonly called in English as village accountant. The officer maintains the records of rights for the land holdings in the village.
charge an extremely high commission rate to the farmers. One farmer explained this as follows:

“The farmers once did a strike on this issue of commissioning. The commission of eight per cent was too much. The commission agents exploited the farmers by charging excessive commission. So the farmers went on a strike. The result was that, both in garlic and potato, commission is not charged from the farmers, but in vegetables they still charge eight per cent commission. If the farmer sells the vegetable by himself without the commission agents, even then the farmer has to pay commission of eight per cent to the agent. This is because if we do not sell it through the commission agent then the commodity will not be sold. So we have to sell it through the commission agents”.

Clearly, it emerges that exploitation is one attribute of the context of the farmers.

7.5.6.2 Lack of awareness and literacy

Discussions with the farmers indicate a widely prevalent lack of awareness about various yard processes, business practices, computerisation and market information.

Understanding of the yard processes requires certain basic levels of literacy. Often the farmers are not literate, and they have to rely on the government officers or the traders for various calculations, etc. This dependency makes them vulnerable to exploitation. One of the farmers described this issue as follows:

“At least I can read the electronic balances. Most of the farmers that come to the yard cannot even read the weights; imagine their extent of exploitation in the yards”.

Another farmer mentioned the following:
“A lot of farmers do not understand the yard processes. They do not know how the auction will be done, how the commodity will be weighed or how payment will be done. Obviously they are exploited”.

One government officer agreed to this and added the following:

“The farmers also lack awareness related to grading of their commodity. They are not aware of the fact that they can grade their commodity properly before coming to the yard. Also, he does not have grading equipment for these different commodities. See what happens is that when the farmer puts his produce in the tractor, he cleans it, does everything and then puts it in the lorry. However, in farming it is natural that the commodity will have some dust. So the farmer is too naïve, and he does not have enough common sense to clean this bottom stock and then load the commodity in the tractor. So when the trader sees this dust he refuses to offer a reasonable price”.

He further added that the farmers do not have adequate information about the rates of the commodity or their demand/supply status. Thus, their decisions to plant certain commodities are largely based on hearsay and their own instincts. The government officer described this as follows:

“They have no knowledge of which commodity they should plant. For example if the rate of potatoes is not good this year, then he will think of planting onions. If that is also not good, then he will think of planting garlic. Only an educated and aware farmer can think on these lines. So it is very important that the farmer becomes aware of these issues. It is only through awareness and information that he can get better prices. For example, suppose we get a large quantity of a commodity in the yard, then naturally the trader cannot buy all of it and naturally the prices will go down. So a farmer should be aware of all these factors. There was a time when the farmers
preferred planting only wheat and gram but then came soy bean, and that crop brought a lot of development of the farmers because it is internationally traded commodity. The farmers in India lack the awareness; they do not have information and knowledge”.

It seems that the lack of awareness about the market rates makes agriculture an unplanned activity in India. This can be concluded from the following statement of the farmer:

“A typical farmer in India will not care about the quality or quantity of output. He just thinks of sowing as much as possible. He does not know whether the market rates will be favourable or not, so he wants to plant as much as possible”.

Also, the farmers’ awareness about computerisation was extremely poor. One private partner described this as follows:

“In this yard, if you talk to farmers here about the computerisation and its impact, they will not even understand because they are not aware about computerisation. Maybe the big farmers, those that bring their produce in large tractors, they know the system. They know about the changes, but the small farmers, they are completely unaware”.

The private partner described the case of another yard which had implemented computerisation fully. According to him:

“In that yard the situation is different. Most of the farmers there are rich and have seen computerisation for quite some time. Their awareness about computerisation is high”.
7.5.6.3 Importance of social tie ups

Discussions with the farmers reveal that social factors play a prominent role in the decision making of farmers. Often the farmers have upcoming social functions that influence their decisions, on storing or selling the commodity. Various farmers mentioned this. One farmer described this as follows:

“Sometimes a farmer may have some family function such as marriage, or death of a family member. In such functions also he may need to provide food to the guests and so he keeps some commodities for such functions”.

Another farmer mentioned that social functions influence the farmer’s decision to store or sell the commodity. According to him:

“In some cases a farmer may not have any function due for the next few years, for example, there is no marriage due in the next two or three years, then he would store the commodity and sell it when the prices are high”.

It also seems that social tie ups are a key factor in various other decisions of the farmers. This can be concluded from the following statement of a farmer:

“We have around 20 bigha of land, but this is in two parts. We have land in the village where we live and also we have land in another village where my father has some relatives. So we decided to purchase land there. Though that village is quite far, but there, we have relatives...”

7.5.7 Poverty of farmers

Discussions with the farmers indicate that their context is poverty ridden. The farmers mentioned various factors that resulted in the poverty of farmers. These factors comprised of interest payments on loans, high maintenance cost of farm animals and inability to meet
various agricultural costs. These factors coupled with factors of low literacy and awareness contributed to the poverty of farmers.

Discussions with the stakeholders indicate that interest payment was an inseparable part of a farmer’s life. It also directly results in their poverty. One farmer described the extent of interest paid by a typical Indian farmer as follows:

“In times of urgencies or financial crises the only source of help to the farmer is the local trader. But even the local trader charges a high interest rate. In fact, every farmer pays an interest somewhere. Only that farmer who is in some other profession, apart from agriculture, is saved from interests. He is the only one out of the vicious cycle of interest. A farmer totally dependent on agriculture is severely caught in this cycle of interest, if there is no rainfall. Such farmers may end up paying 25 per cent of their earnings as interest”.

Another private partner employee mentioned the following while discussing the differences between a big and small farmer:

“A big farmer could make money provided there is no loan on him. If the farmer has an outstanding loan, then it becomes very difficult for him to make money, because a major part of his earning goes in repayment of the loan”.

One farmer mentioned that a farmer’s need to go to the yard is determined by scheduled loan repayments or the need to purchase some other commodities. The farmer summarised the need to go to the yard as follows:

“Farmers usually have a pending loan or they have some function coming. Also, there are some farmers who have to purchase something such as a tractor, motorcycle or perhaps land. Such farmers will not bother about the rates they will sell their
commodities for whatever rate available. They will just drive to yard, sell their produce, get the money and purchase whatever they want”.

Farmers sell their vegetables through commission agents. These commission agents are also a source of finance for the farmers. The farmers repay their loans by selling their commodities through the commission agents. This was explained by one government officer as follows:

“There are various small farmers who do not have money to buy the seeds and the pesticide. So they take a loan from commission agents to buy the seeds and pesticides and then they sell their harvests to these commission agents. This cycle continues for years”.

Often the farmers do not have adequate funds to construct appropriate sheds on their farms where they can store their commodities. In the absence of such sheds, their commodities often get damaged. This was explained by one farmer as follows:

“A farmer does not have enough money to have a shed constructed near the agricultural field. He is not having money to have a proper house to live so how can he think about a shed or a house at the field”.

The farmers need to have some farm animals such as buffalos, cows or goat. These animals have a high maintenance cost, and this contributes to the poverty of the farmers. This was described by one farmer as follows:

“See these animals; they come with a high maintenance cost. We have kept a labour to take care of these animals and we pay him around 20000 rupees a year. Last year we purchased a buffalo for 35000 rupees and we were able to milk it for a few days, and then it died so the initial amount was lost and then we had to purchase another one for 35000”.
7.5.8 Attributes of rich/poor farmers

The farmers discussed the differences between the rich and poor farmers. These differences related to land ownership, quantity of commodities, purchasing of seeds and pesticides, stocking, variety of commodities grown, approaching the yard, capital expenditures, etc.

7.5.8.1 Land ownership

Land ownership was a key criterion that differentiated the affluent farmers from the poor. It seems that farmers owning more than or nearly 20 bigahs of land could be considered as affluent farmers. A farmer explained this as follows:

“My family has 52 bigahas of land. A farmer who has around 20 bigahas is a prominent farmer”.

Such farmers may often have vast tracts of land. A farmer explained this as follows:

“There are farmers who have as land area of 300, 400 or even 600 bigahas”.

Poor farmers are usually those who have land ownership much less than 15 bighas. A farmer mentioned this as follows:

“Small farmers are those farmers who have less than 15 beghas of land for agriculture. Such farmers usually have a pending loan”.

7.5.8.2 Production quantity

Farmers indicated that quantity of production also provides a fair idea about the difference between the rich and poor farmers. Poor or small farmers usually produce less than or around twenty five quintals of commodity. Various farmers explained this as follows:

“A small farmer is one who has around ten bighas of land and usually such a farmer will have around ten quintal of wheat…”
7.5.8.3 Approaching the yard

It seems that there was a difference in the way the rich farmers and the poor farmers approach the yard. The rich farmers usually come singly to the yard while the poor farmers approach the yard in groups as it saves their costs. A private partner employee explained this as follows:

“A farmer will need to hire a vehicle to sell the wheat in the yard. So various small farmers come together and come to the yard”.

7.5.8.4 Capital expenditure

It is obvious to expect a difference in the capital expenditure of the poor and the rich farmers. While the poor farmers rent equipment such as the tractors, the rich farmers purchase these. The poor farmers bear the rental expenses while the rich farmers bear the interest expenses. One private partner employee explained this as follows:

“The big farmer also has to bear capital expenditure. For example, he may purchase his own tractor. So he may need a loan for this. A small farmer, on the other hand, will hire a tractor for let’s say 200 rupees per begha and would get his land ploughed”.

7.5.8.5 Sensitivity for rate fluctuations

Small farmers seem to be less concerned about the fluctuations in the commodity rates than the richer farmers. This is because they have dire need for cash. Their objective in approaching the yard is to liquidate their commodity and fulfil their cash requirements. The rich farmers, on the other hand, want the best possible rates as their concern is profit maximisation and not liquidity. One private partner employee explained this as follows:
“The small farmers are not so much concerned with the best price; they want to liquidate their commodity as soon as possible even if it is at a loss of 50 or 100 rupees. They want to meet their immediate financial requirements. The bigger farmers on the contrary do not sell their produce immediately. They will sell the produce only when they get the best price”.

7.5.8.6 Trade with local trader/grocery owner

It seems that both the poorest of the poor farmers and the richest farmers were sometimes not interested in approaching the yards. The poorest of the poor farmers could not afford the expenses of approaching the yards, on the other hand, the richest farmers wanted to avoid the hassles and complications of trade in the yards. One government officer described this as follows:

“If there is a poor farmer who has produced some five or ten bags of a commodity then it becomes too expensive for him to come to a major city yard. So he sells his produce to the local traders. The richer farmers have their own vehicles and come directly to the yards. The richest farmers, those who produce 1000-2000 quintals, they also sell directly to the local traders. They do not want to bother about the hassles in the yards”.

7.5.8.7 Multiple occupations

Rich farmers usually have multiple occupations. For example, they would both be the farmers as well as traders. One farmer mentioned this to me before introducing me to another farmer:

“He is an affluent farmer. He is a trader as well as a farmer”.
7.5.8.8 Choice of seeds and pesticides

Often the poor farmers have to compromise with the quality of seeds and pesticides. The rich farmers, on the other hand, have the resources to purchase superior quality of inputs. One government officer explained this to me as follows:

“Small farmers at times do not have money to buy the seeds and the pesticide. A farmer who has funds chooses to buy superior variety of seeds from the market; a poor farmer, on the other hand, chooses to grow his own seeds”.

7.6 Context of Trade

The respondents indicated that the trade in yards was influenced by the overall context of the industry. For example, often the industry houses do un-registered deals to save taxes and this motivates the traders to do un-registered deals. The packing standards are often dictated by the industries and this influences the packing requirements in the yards. Often the prices and choice of the commodity was influenced by the industry houses. The business context includes the allied industries and markets such as exporters of commodities, the processing plants, the seed companies, commodity exchange, markets of other states and the international markets. Tax structure also influences the commodity rates and the respondents discussed the various types of taxes that are applicable to the commodities that are purchased in the yards. The discussion below presents the role of various layers of context that influences the trade in the yards.

7.6.1 Allied industries & markets influence trade

7.6.1.1 Regional markets influence trade

The regional markets also play a role in the demand SUPPLY mechanism. Often the rates of the commodities are influenced by the supply of commodities in other regional markets. This was explained by one government officer as under
“The commodity rates also depend on the demand/supply in the other markets. One of the main markets of red chillies in India is in Guntur, Andhra Pradesh. This year the prices have gone down there because of excess supply. This has lowered the prices in our yard. It will take around a year for the prices to recover”.

7.6.2 Agricultural companies influence trade

Discussions with farmers reveal that seed companies were influencing the choice of the commodities planted by the farmers. This was explained by one farmer as under:

“Presently I am working with a company called XXXX. So I will plant the soy bean, process it according to their quality standards and would sell it to them. This is one of the top companies in this state. It has around 20 plants and they purchase around 400,000 bags of seeds a year. Their main interest is in soy bean seeds and wheat seeds. They also trade in other commodities such as the seeds of cotton, etc. So these firms will purchase from us, then they will process it and grade it. It is then re-packed in the bags of 25 kilograms and is sold to other states as seed”.

Another farmer mentioned that such seed companies were offering better rates to the farmers and hence farmers were willing to sell their commodities to them. According to the farmer

“There are some seed companies that check the quality of the seeds and also the quality of the harvest and then they purchase the produce from the farmers. These companies usually provide around 50-100 rupees more than the rates prevalent in the yard”.

Sometimes the farmers do not have adequate funds to support agriculture. In such situations the agricultural companies fund the farmers and in turn the farmers agree to sell their produce to the companies at pre-determined rates. This is called contract farming. One private partner employee described this as follows:
“There are a lot of farmers who are unable to meet the cost of agriculture. They do not have financial ability to purchase the seeds, meet the water requirements, etc. Also they do not know at what price their commodity will be sold. Thus if they get an assurance from a company that the commodity will be purchased at a particular price, the farmers are rest assured. So sometimes they prefer entering in a contract with the private company”.

7.6.3 Exporters influence trade
The exporters of the commodity influenced the commodity choices that were traded in the yards. This was indicated by one government officer as under

“We found that in this yard a lot of exporters were taking interest. These were largely the exporters of the gram. We thus shifted our focus from wheat to gram. We provided all the facilities such as early auctions of gram to these exporters. The exporters provide their quote on the basis of container load i.e., for around 2200 quintals, and so huge lots could be quickly sold from the yard. By concentrating on the exporters we were able to increase our revenue also”.

7.6.4 International markets influence trade
Also certain commodities such as soy bean have international markets. Such commodities can be readily exported and hence traders are inclined to trade in these. This was explained by one trader as follows:

“I trade only in soy bean. Soy bean can be sold any time in the day as it always has a ready market. I can sell soybean even at 11 in the night. Soy bean is an international commodity and its rate depends on the markets in is China, Brazil, etc. Trade in soybean has grown across the country. Various companies have their commission agents and these agents purchase from us”.
7.6.5 Industrial-political nexus influences trade

It seems that there was a lobby of politicians and industry houses that had interest in certain commodity trades. This was indicated by a trader who mentioned various national level politicians of India as well as media houses that were interested in soy beans. According to the trader:

“Various senior politicians such as XXXX, the well-known newspaper group are soy traders or have processing plants of Soybean. YYY who is contesting MLA elections also has soybean plant. So soy bean is a commodity that has political backing”.

7.6.6 Industries influence the packing/weighing standards

Discussions with the informants also indicate that the allied industries/markets play an important role in influencing the weighing and packing standards for commodities. This was explained by one private partner employee as under:

“If the purchased commodity has to be sold to a processing plant then the trader is not concerned about cleaning or processing the commodities. This is because the processing plants have their own machines that will separate the dirt from the grains. They make different bags for the processing plants. The bags that go to the processing plants are marked differently than those for the companies that do not have a processing plant. Also the weights of the bags are determined on the basis of the needs of other industries or other states. For example, if this commodity goes out of the state then it will be prepared in the standardised bags of 50 kg or perhaps 25 kg depending on the requirement of the purchaser”.
7.6.7 Business context influences business ethics

The respondents discussed the various types of taxes that were influencing the determination of commodity rates. Often the respondents regarded these taxes as either exorbitant or irrelevant. For example with regard to the service charges required to be paid at the yard, the trader mentioned as follows:

“Earlier the service charge at the yard was only one per cent. But then that was increased by the government to two per cent. But see even after increasing the service charges the income of the government has not gone up”.

The trader further described a tax type called as entry tax and described this to be completely irrelevant. According to the trader:

“The entry tax is deposited in the sales tax department. Of all the taxes, entry tax is the most irrelevant tax. It is not to be paid when you are selling the commodities outside this state. But it is paid if you are selling the commodity within this state. This is strange. This tax was introduced by the state government from 9th January 1999 and it was widely reported in the newspapers. The government introduced one per cent entry tax in the oilseeds. A trader who purchases the commodity from farmers, he has to pay the entry tax. So if you have purchased the commodity in auction then you will have to pay an entry tax of one per cent”.

Another tax type described by the trader was the value added tax or VAT. The trader described VAT as under:

“The next tax is the VAT tax which is around four per cent for soy bean. VAT is a state as well as central government tax. It is paid by the processing plants. Those who purchase the commodities in yard are not required to pay VAT. VAT is paid by the companies. So once a deal is registered at yard all the taxes are to be paid. VAT
differs from commodity to commodity. Usually for groceries the VAT goes as high as 12.5 per cent. On soybean VAT is four per cent. VAT is applicable on all the oilseeds but is not applicable on wheat and grams”.

Another tax type was the *sales tax*. One private partner employee described this tax as under:

“Sales Tax is payable if any further sale is done of the commodity. Suppose I am a trader and sell the commodity to other purchaser then I need a sales tax certificate. Sales tax is different for different commodities. For example on soy bean the sales tax is four per cent. On certain commodities such as wheat, maize, barley, fenugreek seeds and some medicinal commodities there is no sales tax”.

The traders mentioned that with these four types of applicable taxes, the overall tax paid becomes too high. Obviously when quoting their prices the traders have to consider the applicable taxes. This was described by the trader as under:

“It seems that it is the policy of the government to eventually finish the trade houses. If you are charging around seven per cent of overall tax, then on one quintal you are charging around 160 rupees of tax. That is too much. This is on the name of yard service charges, entry tax, sales tax and VAT”.

Discussions with the respondents indicate that business ethics were being influenced by the large industries. This was explained by one trader as under:

“Some companies for example purchase the soy bean as un-registered deal (URD). Then they sell the subsequent processed products such as de-oiled cakes and oil also as un-registered deals. So they do not pay the adequate service charges to the yard and by doing the un-registered deals they also avoid the subsequent taxes. So tax means nothing to them. So then what’s the use of having these taxes? The traders who do the
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dealings for these companies also think of saving the service charges and the subsequent taxes”.

Another farmer also corroborated this and mentioned that almost all the big companies were involved in un-registered deals, though its proportion may vary from company to company. One farmer described this as follows:

“The big companies purchase around sixty to seventy per cent of their commodities in the form of tax paid commodities. The remaining purchases are done as URD. So there are no records for these deals. There are no records or bills of such deals, they are not shown or recorded anywhere.”

It seems that sometimes industries also indirectly encourage betting activities. One of the traders highlighted the role of commodity exchange which indirectly encouraged the betting of soy bean. According to the trader

“XXXX (names the commodity exchange) is a place where there is betting of soy bean is done. There are agents that do this betting. This is approved by the central government and that is why soybean is highly traded commodity”.

7.7 Major problems in the yards

Respondents discussed the various problems associated with the yard.

7.7.1 Corruption issues in the yard

The stakeholders considered corruption as a major problem in the yards. Within the theme of corruption, respondents discussed their general perceptions about corruption, the situations susceptible to corruption and the encouragement of corruption.
7.7.1.1 General perception about corruption

7.7.1.1.1 Controlled corruption is accepted

There seems to be a general perception amongst the government officers that corruption within certain arbitrary limits was morally justified. This can be concluded from the following statement of the government officer:

“Frankly speaking I am not a puritan. I am no sage. Even I do a little, but this is only to meet the essential requirements. I am maintaining a four wheeler, which most of the people of my salary bracket cannot afford…”

7.7.1.1.2 Corruption is a common phenomenon

The stakeholders considered that corruption was a common phenomenon which was present in all the yards. This could be concluded from the following statement of a government officer who has served for over two decades in the yards:

“At some yards there is a lot of corruption and in the others there is corruption in highly polished manner.”

7.7.1.1.3 Corruption had an adverse impact on individual wellbeing

There seemed to be a perception that corruption had an adverse impact on individual wellbeing and the quality of life. This can be inferred from the following statement of a government officer, who accepted that he practised corruption:

“It all depends upon what is your objective as an employee. If you want money then obviously you will look for yards where there can be a lot of construction work or developmental work. However, it is sure that with such money you will lose mental peace. On the other hand, if you are not taking bribes then there will no mental pressures and you can work peacefully”.
7.7.1.2 Situations susceptible to corruption

The respondents indicated various situations or avenues that are susceptible to corruption. These included situations involving financial benefits, infrastructural or developmental works, organisational growth through promotions and transfers and incorrect endorsements.

7.7.1.2.1 Stakeholder is likely to receive financial benefits

The first situation susceptible to corruption is when a stakeholder is likely to reap some financial benefits. The authorities then seek a share in the financial benefit. For instance, the retailers purchase the fruits and vegetables from the yard. They pass the exit gates, after paying the service charges and then sell their purchased commodities from their retail shops. They reap the financial benefits only after passing through the exit gates. Thus exit gates provide a situation where the government officers force corruption. This can be deduced from the following statement of a government officer:

“Even the employee who monitors the gate, he also affords a motorcycles and mobile. He cannot afford all these things in his current salary. But still he manages it… How does he generate the extra income? He may just ignore a few bags that exit the yard”.

One private partner employee corroborated this and mentioned that corruption was rampant at the exit gates. According to a farmer:

“Here at the entry exit gate they do not keep any record of the payments made by the purchasers. They (government officers) just charge them five rupees. The charged rate should depend on the commodity as well as its weight. But they charge an amount of five rupees from everyone. In the evening they divide the earnings amongst themselves. Actually whatever money is being collected, it should be utilized for developmental works in the yards. But that is not done.”
7.7.1.2.2 Infrastructural development

Discussions with respondents indicate that infrastructural works in the yard provided an avenue for corruption. This was explained by one government officer as follows:

“The development of yard is seen from its infrastructure. Fifteen per cent of a construction project’s budget goes to the pocket of the secretary. That rate is fixed. So if there is a construction work in the yard, the inspectors also stand up for their share in it. Whether the inspectors are useful or not, that is not analysed. There is a technical wing in the board which is interested in construction works”.

7.7.1.2.3 Corruption for transfers and promotions

It seems that transfers and promotions in the yard provided situations that were exploited for corruption. Often organisational promotions took a long time and could be expedited by paying bribes to the senior officers. This was explained by one government employee who was denied promotion by his immediate senior on false accusations. The officer however eventually bribed some seniors and managed to procure for himself a promotion. This was described by the government officer as follows:

“My promotion was cancelled. So I presented my justification and did a lot of things, went to the state capital and tried to convince the people there. But nothing worked. At last I used money. I had to give money and I got promoted”.

The same officer at the time of the interview was looking forward to being transferred to another yard and mentioned the following about his transfer.

“I am now trying to get myself transferred from this yard. I have completed two years here and now I want a transfer. Yesterday itself I talked to a senior officer in the other yard where I want to be transferred. Also I met the minister. They want to remove the
officer from that yard. I have clearly told these people that I wanted to be posted there but I will not be spending money because I do not have any money. Yes, but I told them, that if I earn I will give a share it with you”.

7.7.1.2.4 Corruption for incorrect endorsements

It seems that corruption was likely to be exercised in situations that required endorsements from a government officer. For example, the government officers may endorse a document that under report the commodity purchased by the trader. One private partner employee explained this as follows:

“Sometimes the yard employees do not correctly record the commodity during the auction. For example you can see here that there are around twenty bags of a commodity kept here. While generating the auction slip the employee would under report the bags and generate the auction slip”.

Sometimes the government officer may endorse the passing of vehicle that manipulates the declaration of commodity. This was explained by one private partner employee as follows:

“There is a lot of corruption at the check post. Vehicles can pass without paying proper service charges. The officers sitting at the check posts have dealings with the traders. They know which vehicles should be stopped for service charge collections and which one should be allowed to pass through”.

7.7.1.3 Encouragement of corruption

Discussions with the respondents indicate certain factors that augment and encourage corruption. These include corruption by peers, seniors and political leaders, sycophancy of seniors and setting of unrealistic targets.
7.7.1.3.1 Corruption by peers, seniors and politicians

In certain yards corruption was rampant and present across the yard hierarchy. Such situations encourage corruption. One private partner employee presented his experience of working in such yards as follows:

“I have lived in that region for some time. There the employees from the lowest grade to the highest grade are all corrupt. Because if the lower employee is doing corruption, then actually his superior is monitoring him and he knows very well what the subordinate is doing”.

7.7.1.3.2 Sycophancy of seniors

Sometimes corruption is an outcome of the sycophancy of the seniors. Often the practices of seniors are ignored because of sycophancy and this may eventually lead to widespread corruption. This was inferred from the following statement of a private partner, reference to which has been made earlier.

“I have often observed that if any senior officer from the board comes to visit the yard then all expenses of his visit, all the expenses of whatever he does are borne by the yard secretary… But strangely, I have never seen a yard secretary claiming these expenses…”

7.7.1.3.3 Setting unrealistic growth targets

Sometimes setting up unrealistic growth targets may encourage corruption. Discussions with the government officers indicate that they are often provided unrealistic growth targets by the board. Achievement of such unrealistic targets requires unconstitutional means. This was explained by a government officer as follows:
“I have been working on this project for the last five years and my observation is that by setting the growth targets they are encouraging corruption. They decide the target based on the last year’s revenue collections. But natural calamity may come any time and without giving any warning. In such situations of natural calamities obviously the target cannot be met. So the only option to meet the target is to raid the premises of the traders and ask them to pay their service charges. Or to force them to pay the service charges in advance so that target can be met. Obviously such situations are exploited by traders also as they help the government officers”.

7.7.2 Problems in implementing yard rules

There was perception amongst the respondents that the yards rules and regulations were not implemented properly. Respondents presented various instances related to the yard process in which they felt that the rules were not properly implemented. One farmer for example mentioned the following about the payment process:

“We are waiting for the payments. We will have to wait till three or may be four. The traders will not pay us until two clock. They will earn the whole day’s interest at the bank and will then make us payment. In fact, as per the yard rules, payments should be done immediately and there should be no problems to farmers in the payment. But the rules are not implemented.”

Another government officer presented another example in which the rule related to commission rate was hardly followed. The officer mentioned as follows:

“As per the rules the commission agent should get a commission of seven per cent from the traders. This is as per the Act but in actuality this is negotiated between the trader and the commission agent and is usually around five per cent. Also as per the Act the yard service charges should be paid by the commission agent and he should
be reimbursed, by the traders but in this yard the system is that the traders deposit the yard charges”.

It seems that there has been a long history of neglecting rules in the yards. This can be inferred from the following statement of the government officer, who described his experience in a yard:

“That yard was full of middlemen. Actually this system of middlemen was stopped in 1986, but in that yard it continued somehow till 1995. I was sent there as a member of the special team to stop this middlemen trade”.

Respondents presented various reasons for not implementing the yard rules and regulations. According to the respondents, absence of detailed guidelines for implementation of the rules, high trade volume and crowd situations, singularity of the act and differences in the social settings of the policy makers and implementers presented some major hurdles in the implementation of rules and regulations in the yards.

7.7.2.1 Rules and regulations are not specified

One government officer mentioned that certain rules and regulations have not been clearly specified in the Act. This often created problems for the government officers. As an example the government officer described one such situation:

“There are three types of trade in the yard. The primary trade is trade between the farmers and the traders. The secondary trade is trade between the traders and other traders. And the tertiary trade is trade between the traders and the other terminal markets. In the act, the rules are defined only for the primary and the secondary trade. The rules for the tertiary trades are not defined in the act. Even for the secondary trade the act says that the commission agent will be a licensee. But then the policy makers have not described the details of the forms or the format in which the commission
agent will submit the information to the yards. Earlier these issues were quite clear when there were separate bylaws for various yards but then in the year 2000 they imposed one Act for all the yards. This is not good for the overall health of the yards”.

7.7.2.2 Inappropriate rules and regulations

It seems that certain rules and regulations are inappropriate for the conditions in the yards. For example one government officer presented one such rule that related to the quality checking mechanisms in the yard. According to the officer:

“If we start looking for solutions that are based only on the written laws and rules then the quality conflicts in yards cannot be resolved. As per the rules, in situations of quality conflicts, the entire commodity should be opened. So that means the entire lorry will be opened and then the quality will be judged by us. This will take a lot of time as there are so many vehicles”.

7.7.2.3 Crowd situations and high transaction volumes

It seems that crowd situations present another hindrance for the implementation of the yard rules and regulations. Often policies are designed that ignore the crowd situations completely. This presents a situation where the implementation of the rules becomes very difficult. This was described by one government officer as follows:

“When the policy makers design a system they consider that there are very few people. While designing the rules, they typically write such statements as: The farmer will come to the yard. He will be then given a number. Then he will unload his commodity at the designated place/shed. Now, practically, this system cannot be followed because there are not one or two farmers/ traders. There are hundreds and thousands of them. Moreover there are 25000 bags that come here every day and the
premise is too small. Then there is primary, secondary and also tertiary trade, so the commodities that come here are those from the farmers and also from other traders”.

7.7.2.4 Lack of participation in policy formulation

It seems that the policies/ rules are not designed after due participation from the implementers. This results in creation of policies that are impracticable. This was described by one government officer as follows:

“These by-laws were developed by the Board in the state capital. We were not even consulted in this. Neither have they asked for our suggestions. So they have developed the laws by sitting in the comfortable rooms. So their perception is very different from ours. There is no match. We come to know about the policies and laws only after they are made and forced on us. Then we have to find the ways of implementing these. The EKVI software is also based on these by laws”.

7.7.2.5 Social setting of policy makers is different from the implementers

It also seems that the social setting of the policy makers is very different from the implementers. The policy makers come from a socially secured background while the overall context of an implementer is of insecurity. This can be concluded from the following statement of a government employee.

“The yard transactions involve a lot of paperwork which is too lengthy and time consuming. It is not possible to do such a long piece of paperwork considering the ground level conditions. A person who makes the policy or writes the policies in the book does so in a very calm and quiet atmosphere. He thinks quietly and then writes. He gets an atmosphere to think and so he writes. But in practice the things are totally different”. 
7.7.2.6 Single act for diverse yards

It seems that there was considerable variation in the yards and yard processes. Thus it was difficult to implement a single act in these differing yards. However, in the year 2000 a single act was specified for all the yards. This presents considerable problem in the implementation of rules and regulations. This was explained by one government officer as follows:

“There is a lot of difference in the yards. What you will see in the yard XXXX will not be seen in the yard YYYY. But now the act is the same for all yards. Previously each yard had its own laws but in 2000 they replaced these laws by a single act.”

7.7.3 Infrastructural issues in the yard

Respondents also discussed the infrastructural problems in the yard. The respondents presented the basic infrastructural problems as well as the reasons for the problems. Amongst the infrastructural problems the respondents discussed absence of basic infrastructure and cleanliness issues.

7.7.3.1 Absence of basic infrastructure and cleanliness

It can be readily observed while visiting the yards that they lack basic infrastructural facilities such as rest rooms and clean drinking water. This was also mentioned by one government officer as follows:

“See proper road, water, electricity and cleanliness are first and foremost requirements. We must have basic infrastructural facilities within the yard premises”

One private partner employee mentioned that often the yards that earn the highest revenue also do not have appropriate infrastructure and cleanliness. This was mentioned by a private partner employee as follows:
“In spite of one the highest tax collecting yards, in this state, even today this yard has poor roads and there is dirt everywhere.”

The respondents discussed the absence of sheds in the yard. Often the farmers travel long distances to reach the yard and are exhausted. The requirement of a shed is thus a major requirement. During the field visits I often saw farmers resting under the available sheds. However, it seems that the yards lacked a sufficient number of sheds. One government officer mentioned the following:

“As of now there are only two sheds right now. But then I told the board that if we have more sheds the farmers will be spared from sunlight and rains. So the board has finally approved it. So now we will have two more sheds. In these two extra sheds we will be able to place around 2000 more bags so that is an additional facility we got”.

7.7.3.1.1 Reasons for infrastructural problems

The respondents discussed the reason for the infrastructural problems in the yard. Often the yards are not allowed to utilise their earnings for their own development. Often the funds of the yards are transmitted to the board and state treasury. The funds cannot be utilised for developmental works. This was explained by one private partner employee as follows:

“The revenue collected by a yard goes to the board and does not remain in the yard. I have discussed this with the traders and they say that they do not have any problems in depositing the service charges in the yards. But they feel that the funds are misappropriated by the employees. They are not utilised for development here”.

In order to understand this issue further I asked the respondent about the policies regarding the utilisation of the collected funds in the yards. The private partner employee described this as follows:
“See as per the yard policies out of the total service charges of two per cent charged by the yard, one per cent directly goes to the board. Of the remaining one per cent, about twenty per cent goes in the road development treasury i.e. the road development fund for the road that are constructed in the villages and the remaining goes for other infrastructural funds. If yard has to do some developmental work, it first needs to get the project approved in the yard committees, after this an approval is sought from the board. This means that the yard secretary is not independent to get some or any of the developmental works done”.

7.8 Major problems in IS implementation

In this section I discuss the major problems in IS implementation in the yard. Discussions with the respondents indicate that the major problems in IS implementation included power failure and technology breakdown, the inherent complex nature of trade in yard, lack of coordination and mistrust between stakeholders, data entry and reconciliation problems, limitations of software application, incorrect reporting, security issues and lack of adequate authority to the private partner. In this sub-section I present the description of these themes.

7.8.1 Power failure and non-availability of technical support staff

It seems that power breakdown had an adverse impact on the overall efficiency of IS implementation. The data entry became restricted and also the employee morale became low. When I visited one private partner office in the rural area, there was no power available and hence data entry operators were not available. The team leader mentioned the following:

“There are around ten people in this office. There is a team leader, that is me, I look after around five to seven mandis and then there are the operators. However the operators are not present here because there is no power now. Also the site in-charge has gone somewhere as there is no power”.
Also non availability of support and maintenance staff created a major problem in IS implementation as technology could not be properly utilised. This was particularly the case with display boards, television sets, etc. One private partner employee explained this as follows:

“You can see an electronic display board here. This is connected with the computer. If we have to make any announcement, we feed it on the computer and it is displayed here. The latest commodity rates are also displayed here. However it has not been working for the last fifteen to twenty days. The mechanic who mends it comes from New Delhi and hence it takes time to correct it”.

### 7.8.2 Complex yard processes

It seems that yard processes were inherently complex. This complexity made it very difficult to implement the IS. A better approach would be to first change the processes drastically and then implement the IS. This was explained by one government officer as follows:

“The process of auction is so complicated that it is impossible to computerize it. The process of auction should be completely changed. For example, let’s suppose hundred farmers have come to the yard, so the sample from farmers should be collected and showed to the traders. The traders can then bid on it and the final auction rates can be entered in the computer system, in that situation it is still possible to do computerisation. Even in this the problem may arise that the sample is quite different from the main commodity, so the scenario is quite complex”.

The complex scenario was further accentuated because of the crowd gatherings as well as the fastness of the auction process. This was explained by the same government officer as follows:
“The way the auction is conducted in the yard, with so many people and so many farmers. It is done so quickly that it is impossible to get the true or correct data, based on auction alone. Even entering the auction data correctly through terminals alone is impossible because the auctions are done so fast. By the time the data is entered in the handheld terminal, the auction inspector moves to the other auction”.

Apart from the transaction in the field, the back office activities also involve huge documentation. There are over thirty six different types of forms that are routinely filled out and the data from all these needs to be managed.

7.8.3 Lack of coordination and mistrust between various stakeholders

It seems that there was a lack of coordination between various stakeholders which had an adverse impact on IS implementation. This has been presented as a theme under the section titled ‘Trust issues amongst stakeholders’.

7.8.4 Data entry and reconciliation problems

Discussions with the government officer indicates that data entry and reconciliation was a major problem in IS implementation. The private partners often committed mistake while entering the data from the government records. The incorrect data entry often resulted in massive data reconciliation problems. The government officers mentioned that under the contractual obligation, the private partners were required to capture the live data from the field. Instead the private partners depended on the government records. Thus first hand data was not collected. This was explained by one government officer as follows:

“They (private partner) should actually capture the data on the spot...but they take the help of our records i.e., the record books that are with the government employees. Our employees record the details such as the trader name, commodity, etc. in their books. The private partners capture the data from these books and not directly from the
field...they should capture the data directly from the field and make their own data entry”

Another government officer mentioned that often the entries of one commodity were wrongly entered for another commodity.

“Sometimes the entries related to one commodity go into the other commodity. For example they will make an entry of the peas in the wheat or of the wheat in the peas”

Often the data entry mistakes of the private partners resulted in show cause notices being served to the government officers. I observed a conversation between a government officer and a private partner employee, which was as follows:

“But if your data entry problems create a situation for me in which I am being given notice by the authorities, then I will make sure that you work properly. I will not allow you to enter the data from my records anymore”.

It seems that the private partners did not take data entry very seriously and this often resulted in massive data entry problems. This was explained by one government officer as follows:

“If you go to the office of the private partner you will see a lot of data books are being carelessly kept on the floor. These are all our record books. Now if they forget entering the data from one of these books, there is no one to catch hold of them”.

The data entry mistakes of the private partners often resulted in data reconciliation problems. This was mentioned by one government officer as follows:

“Sometimes they (private partners) do not enter the data on arrivals properly. For example if there has been an entry of five hundred vehicles today, then they should also have same number of auction slips and weight slips...so the private partners do
not bother about these issues. They do not enter the data properly and that creates a problem”.

Often the conflicts between the traders and farmers result in data reconciliation problems. This is because the traders dispute the quality of the commodity shown by the farmers in the sample. This results in cancellation of the trade. However this is not updated by the private partners and hence there is a reconciliation problem between the various trade documents. This was explained by one government officer as follows:

“See there are a lot of things that they do not understand. For example, suppose that we have issued hundred auction slips. That means there have been hundred trade agreements and so there should be hundred instances of weight. Often there are some instances when the farmer/traders have a dispute and so they decide that there should be no trade. Sometimes there is the problem with the quality of the commodity. The quality shown in sample is different than the actual quality. So these agreements are to be cancelled…The private partners do not update this cancellation in their system. This creates a problem because our records do not match with computer records”.

In some instances the private partners blamed the government officers for the problem of data reconciliation. Referring to a specific problem of data reconciliation at the check posts, the private partners mentioned that corruption was a major cause of data reconciliation problems at the check posts. One private partner employee mentioned this as follows:

“When we issue a no abjection certificate (NOC) to a trader, the issuance is recorded in the system. This record should reconcile with the exit record of vehicle at the interstate yard check post. Sometimes the officers at the check post allow the vehicle to pass without checking the NOC. So our records show that NOC was issued, but the vehicle has not crossed the interstate check post. For example sometimes our records
show that the vehicle did not pass even in 200 days. This is a problem. This problem can be resolved only if one of our staff member also sits on the check post and he also records the exit of each vehicle. So our seniors asked us to put one of our employees at the check post. The concerned employee had sat on the check post only for one day and he was threatened and so we had to remove the employee from the check post”.

It also seems that sometimes the traders manipulate the documents and this creates the data reconciliation problems. For example one government officer mentioned that:

“Normally a trader purchases the commodities and presents the records every tenth day. Sometimes the trader may try to manipulate the auction rate that is entered in the slip; they might just overwrite the figures, so this needs to be reconciled”.

One of the causes of data reconciliation problem relates to the overall trade volume in the yards. Often the yards do not have an overall capacity to handle huge number of transactions. This results in massive reconciliation of data. This was mentioned by one government officer as follows:

“We have around 1600 traders, and so when so many traders file their returns, it becomes very difficult for us verify or reconcile the data of the returns”.

In certain cases there are genuine contextual reasons that result in the problem of data reconciliation. Sometimes farmers, travelling long distances, arrive late in the yard. At such late hours, often the government officers make arrangements with the traders to sell the commodity of the farmers. The actual slips for the trades are issued the next day as the yard inspectors are not available. The entrance of the vehicle on the other hand is of the same day. This results in data reconciliation problems. This was mentioned by one government officer as follows:
“Sometimes what happens is that the farmer may come late in the evening, when most of the yard employees have gone. The vehicle entry is made and the officer who is present at that time calls some traders. They will agree to purchase the commodity. Since the yard inspector is not there, the actual auction slip is issued the next day. Sometimes such cases create a problem. This is because the vehicle entry and the date of auction slip are different”.

7.8.5 Limitations of software application

It seems that the software application was not properly fulfilling the requirements of the government officers. The specific information that the government officers expected from the application were not readily available. This was described by one government officer as follows:

“Often the traders would stock commodities. They sell this stock with the help of local traders. So in some yards the local trade may be very high. The current software has no separate functionality or module to capture the local transactions. So our requirement is not met by the software properly as our requirements are very different. There is no pro forma for verifying whether tax payment has been done or not”.

One government officer mentioned that the software was not robust enough to detect the fraudulent cases readily. This was described by the officer as follows:

“Sometimes the traders do manipulations in the weighing. For example, they may sign ten auction contracts but get weighed only nine. This can be done intentionally by bribing the weight certificatory or it can be unintentional. With their software, they (private partners) should be able to detect this discrepancy immediately. But instead
they take months to detect such fraudulent cases. Actually from the computer data you should be able to figure out that very quickly, but they take months”.

Another government officer presented a similar opinion and mentioned that the software was not helping the government officers in detection of fraudulent cases. This government officer described this as follows:

“In yards basically there are six types of records. The records of entry, auction, weighing, payment, no objection certificate (NOC) and gate pass. But apart from the purchases made at the yard, the traders also make purchases outside the yard. There are so many processing mills, etc. To solve this problem, we have deputed our staff at various locations. They give an entry slip to the vehicles entering at the key locations. When the traders submit their records of purchases, we cross check these with the dates given on the entry slips. That is one way to identify whether the information given by the traders is correct. So this is our entire record and we get it entered in the software, obviously the software should help us in tracking the cases of fraud. But that is not happening. Even for the transactions within the yard, we should be able to cross check the data from whom the trader has purchased the commodities. Such facility of cross checking the records of the traders is not available in the software. So the software hardly helps”.

The government officer further described that the software was based on the uniform act governing the entire state and hence it did not facilitate the local needs. According to him:

“See the software that they have made was based on the yard by-laws and manual and these are same throughout the entire state”.
7.8.6 Incorrect reporting

The private partners generate various kinds of reports as part of their contract with the yard. In fact it seems that, the private partners present the entire record of transactions in the form of reports. The analytical and ‘knowledge’ component from the report is missing. One private partner employee described to me the various reports and mentioned as follows:

“This is called as the MIS report. Print out of the MIS report of all the yards is given to each yard every month. This is a major document that we produce. Apart from this we also give them various daily reports on the daily transactions such as a trial balance report, auction reports, weight report (details of the weighing transactions), entry reports, NOC reports, payment report, etc. At the regional office we are providing the monthly MIS reports. There are basically four types of MIS reports that are generated, the yard revenue bifurcation reports, progressive income-arrival report, monthly comparative report with last year, monthly arrival report and daily rates report. Also we give the reports related to the yard employee salary, bank book, cash book, daily book, budget, etc.”

The government officers seem to be overburdened with the work and they expect that the periodic reports presented to them should aid their decision making. However the reports generated by the IS do not help the decision-making. This was mentioned by one government officer as follows:

“They (private partners) are giving us the reports; they give us lots of data. But if I can use it then it makes sense, I do not have that much of time to do that...if I get to see the records of a trader, then these have to be tallied against various records”.
It also seems that the private partner employees were not aware of the yard rules and regulations and hence often generated information that was not reliable. For example one government officer while rebuking a private partner employee mentioned the following:

“The way you are generating the report is completely incorrect. You are charging the late fee for every day. You are making the late fee calculations from the day the NOC was issued. Do not you know that there is an exemption of fourteen days for the calculation of late fees. The 14 days are not calculated from the day slip is issued; these are calculated from the day the commodity reaches the destination yard. NOC can be issued in a yard that is five hundred kilometres from here and it can take over two days for the commodity to reach here. So the late fee is not charged from the day it was dispatched, it is charged from the day it reaches the yard”.

7.8.7 Security issues

Physical security of the government officer and the private partners is a major issue in the yards. Yards have a dire need of labourers as the commodity needs to be transported and weighed. Yards are often surrounded by slums that provide cheap labour. Often the slums are notorious for the goons and thugs residing. The vicinity of the slums poses security issues in the yards. One government officer described this issue as follows:

“These goons that reside in the area close to yard, you do not know what they can do”.

A private partner employee mentioned that the instances of theft in the yard are primarily because of the adjoining slums. This was mentioned by the private partner employee as follows:

“See this yard is also next to the slums, the adjoining areas are all slums and so there are a lot of instances of theft, fighting, etc.”
One farmer indicated that labourers were involved in some kind of thefts in the yard. This was explained by the farmer as follows:

“Farmers often keep their commodity bags together. So the bags of different farmers may get mixed up. So if we do not keep a firm eye on our bags then we may end up losing one or two bags, that is why when the commodity was being weighed I was standing there”.

Also the entrance to the yard is not restricted as yards are located amidst the city and are frequently used for traversing to different locations. This makes yards vulnerable to anyone with intention of theft and loot. This can be inferred from the following conversation between a government officer and a passer-by:

Government Officer (stops the passer-by): “what are you carrying in this bag?”
Passer-by: “This has got some wheat; this is for our home consumption.”
Government Officer: “Have you purchased it from here?”
Passer-by: “No, this is from our home. Do we need any slip to take this out of yard?”
Government Officer: “Do you have any slip of the purchase?”
Passer-by: “we have not purchased this, this is ours, and we want to take this back…”
Government Officer: “OK tell the gatekeeper that you have talked with me. He will let you pass. Next time do not take the commodities outside without…we have to maintain the security here. We have over fifty thousand (50,000) bags here and so we have to keep everything secured”.

One private partner employee mentioned that in some yards the private partners had severe threats from the lobby comprised of the traders, politicians and the goons. The private partner employee described this as follows:
“In some yards such as the XXXX yard, there is a lot of politics. The commodities traded there are all high priced commodities and there is a direct monetary link. If we do not work there with caution, it comes to the life of the employees. At some occasions our employees were physically threatened and the employees had to leave the premises and run because there everything is related to their monetary interests. If you do anything against their will they call for a strike. Some of our employees are frequently threatened there”.

Another senior private partner employee related the security threats to the success of the IS implementation and mentioned as follows:

“Moreover given the security threats in the yard, even they should not expect a lot from us”.

7.8.8 Lack of adequate authority of the private partner

It seems that the private partners have not been given any authority in the implementation of the IS. This was mentioned by one private partner employee as follows:

“The government has not given us any power and expects that computerisation should work very fine. That is not possible. Give us power and we can show how to run the system effectively”.

Another senior level private partner employee mentioned that he was threatened many times with dire consequences if the computerisation was not done properly. He described his situation as follows:

“From my experience in XXXX yard I can tell that, there are corrupt politicians, goons, and they are so strong that the process of computerisation is helpless. Even the government cannot do anything against them. One of the politicians, at XXXX told me bluntly, in a very rude manner, that if you do a mistake in computerisation then
you will be thrown out of the yard campus. We are merely private partners, so we should not be expected to do everything right in such an atmosphere”.

The private partner employee also mentioned that under the contract with the government, they were not given any authority and hence often they had to overlook corruption. This was mentioned as follows:

“Our agreement with the yard is that the yard will provide us with the documents and we will feed these in the computers. So we cannot do anything more. We can just feed the documents given to us by the yard. We cannot say anything. Our employee for example may see that the yard employee is ignoring some commodity bags and not recording these, but we cannot help it, because our work is to feed the data from the slip issued by the yard employee”.

7.9 General perceptions about Indian Society

7.9.1 Insensitivity to human concerns

The respondents felt that the Indian society was by and large insensitive to human concerns and that this insensitivity had deeply permeated the organisational culture in India. One government officer described the staff shortage in his yard and made a reference to this insensitivity as follows:

“Considering the overall trade volume of this yard, I have very few employees here of the management grade such as Assistant Deputy Inspector. All I have are employees at the clerical or peon level. There are gatekeepers, peon, night-watchmen, etc. Occasionally I ask the clerical staff to perform the managerial activities. Naturally you cannot expect quality work from them. Obviously the peon that serves water to everyone has no aptitude for management tasks. He cannot do that. So in India no one thinks about these matters”.
At another instance the same officer mentioned that

“In India there is Ram Rajya\textsuperscript{43} everywhere, everything run on its own. No one is concerned”.

7.9.2 High social prestige associated with government jobs

The officer also mentioned that in India government jobs brought a lot of security to the employees. Thus government jobs were considered as prestigious employment. This was explained by the government officer as follows:

“The mentality in India is such that even in marriages people prefer to have grooms that are in government service because they know that if he is in a government service he is bound to be paid till 60 years”.

7.9.3 High value to money/monetary power

It seems that the monetary power was considered as the supreme form of power. This was explained by one private partner employee as follows:

“In India if you have money you can do anything. Actually it is the economics that matters, its money that speaks here”.

7.10 Summary

In the preceding sections, I have identified the key research themes of this research. These included: stakeholder strategies, trust issues among stakeholders, negative perceptions about other stakeholders, government employee issues, context of farmers, context of trade, major problems in the yards, major problems in IS implementation and general perceptions about Indian society. Table 7-2 presents a summarised description of each theme.

\textsuperscript{43} The Ram rajya is a metaphor used in Hindi language. It refers to the religious belief in the reign of a Hindu God Rama. It is believed that during this period the society was so just that there was no need to monitor or govern the masses. Hence, the reign ran on its own.
Stakeholder strategies: Certain practices are peculiar to each stakeholder group. For example, farmers manipulate the commodity quality, traders under report their transactions, government officers display authority and private partners present false/incorrect reports.

Trues issues among stakeholders: Each stakeholder group was untrusting of the other stakeholder group.

Negative perceptions about the other stakeholders: Each stakeholder group had negative perceptions about the other stakeholders. Such perceptions could be attributed to the group membership alone. For example, farmers were considered as cunning, traders as deceitful and treacherous, and private partners as profit seeking.

Government employee issues: The government employees were facing various kinds of problems in the yards. Their day to day working was characterised by staff shortage, lack of organizational support, financial uncertainty, inefficient employees and rigid bureaucracy.

Context of farmers: Agriculture is a laborious activity, and was marked by uncertainty. Largely the farmers were ridden with poverty and the overall context of village was marked by exploitation.

Context of trade: The traders were working amidst large organizations, such as seed companies and exporters that were involved in doing un-recorded trade transactions. Furthermore, there was a close nexus between these industry houses and politicians.

Major problems in the yards: The yards faced various problems such as those related to corruption, problems in implementing yard rules and lack of adequate infrastructure.

Major problems in IS implementation: The IS implementation faced various types of problems such as power failures, lack of coordination between the four stakeholder groups, problems of incorrect data entry and reconciliation, incorrect reporting, security issues and lack of adequate authority to the private partners.

General Perceptions about Indian society: There was a general perception amongst the stakeholders that in India, government jobs were associated with a high social prestige, money was a supreme value and there was pervasive insensitivity for basic human concerns.

Table 7-2: Summary of themes

These themes situate the computerisation project in its socio-cultural context. Ontologically, the themes can be imagined as the vectors that demarcate the IS implementation space. Identification of the major issues required a critical reflection on the themes as well as the relationship between these themes. In the next section, I discuss these relationships and proceed further to answer my research question.
CHAPTER 8 – DISCUSSION

In this chapter, I discuss the findings of my study. I identify the major issues in the implementation of AMIS in developing countries, especially India. I first present the evidence for mistrust as a major problem of IS implementation. Then I suggest that high levels of mistrust may lead to the cessation of trade transactions as parties may voluntarily withdraw from trade transactions. In case of the yards, however, all stakeholders acknowledged the high levels of mistrust amongst them, yet continued with the trade transactions. This leads to the issue of resignation. Stakeholders are resigned to the fact that they have to participate in such trade transactions, because there is no viable alternative. Mistrust breeds resignation in the stakeholders. This resignation – that there is no other option - further reduces the propensity to trust and a vicious cycle is formed. Following this reasoning, I suggest that mistrust-resignation presents a major challenge to IS implementation. Finally, I suggest some solutions to this problem.

This chapter proceeds as follows. I first discuss trust relationships. These are the building blocks for the models that involve multiple constructs. I present excerpts from data to establish the plausibility of the models. The relationships that are based here are an outcome of my use of constant comparative method (CCM). Using this method, the themes were initially compared within each stakeholder group. This comparison presented four construct relationship models for each stakeholder. These four models are presented below as Figure 8-1, 8-2, 8-3, 8-4. Discussions in this chapter are based on these four models. The arrows in the model represent the reasons, while the rectangles represent the macro level themes that are the outcome of CCM within each stakeholder group.
Agriculture is an uncertain occupation i.e. where the rewards of one’s efforts are not guaranteed

Yards lack basic infrastructure

Farmers have a high sense of exploitation by nearly all segments of society (particularly government and traders)

Lack of care

Uncertainty and exploitation shapes the experience of farmers. Hence they do not trust the other stakeholders (traders and government officers)

Figure 8-1: CCM based thematic map for the farmers
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Lack of ability, care and sincerity

Yard employees are overburdened with work, face various kinds of problems but senior officers don’t care about their problems.

Lack of care and concern marks government officers.

Traders, private partners, farmers and government all lack honesty.

Yard employees are overburdened with work, face various kinds of problems but senior officers don’t care about their problems.

Lack of ability, care and sincerity

The context of government officers is replete with instances of lack of care, poor abilities, lack of honesty and sincerity. This results in low levels of trust between them and other stakeholders.

The field level implementers are not involved in policy design.

Private partners do not display ability, sincerity, integrity and honesty.

Yard rules are not implementable.

Officers on deputation serve a temporary term in yards and are not sincere for resolving yard problems.

Every yard has its own set of procedures and processes that are complicated.

Traders, private partners, farmers and government all lack honesty.

Figure 8-2: CCM based thematic map for the government officers
Agriculture is an uncertain and unprofitable occupation, especially for the small farmers.

Traders are a powerful lobby group who exercise considerable hegemony over other stakeholders.

Government is primarily responsible for yards problems and failure of computerisation because government officers are inefficient, corrupt and insincere.

Target setting encourages corruption in the yards.

Yards do not have autonomy to utilise funds.

All the stakeholders are crafty and deceitful. Stakeholders are not fair to each other.

The government does not trust the PP.

Changing the mind-set of people is very difficult to suit computerisation.

In such a situation, computerisation is unlikely to be successful.

Figure 8-3: CCM based thematic map for private partners
Government employees are inefficient, insincere and corrupt.

Government is unfair in levying the tax on the traders.

Government is unfair, corrupt and inefficient

Traders do unregistered deals and un-registered deals have a negative impact on yard revenue.

Farmers do not show the true samples of their commodity

Low level of trust in the government as well as other traders

Figure 8-4: CCM based thematic map for traders
8.1 Farmer perspective

Discussions with the farmers indicate that their context has two attributes namely uncertainty and exploitation. These two attributes present a convincing picture of agriculture in India. First is its dependency on monsoon rains and second, labour intensiveness of agriculture. A farmer has to toil hard throughout the agricultural marketing cycle, so as to finally reap the rewards of his hard work. Since a detailed understanding of the hardships of agriculture has been presented in the previous section, a brief statement of a farmer illustrating the physical hardships in agriculture will suffice:

“…Each of these bags that you see here is of one quintal, and the farmer has to lift it many times to bring it finally to the yard. We first cut the soybean in the farm, and then we put it in bags so that it can be transported from farm to the drying area. After drying, the commodity is again put in the bags. Then the bags are transported in the lorry to the yard. So there is a lot of effort. If we hire the labours, they will cut the soybean and put it properly in the bag and will charge us 25 rupees a bag to do this. At our own farm, we have to lift these bags up many times. See the labourer lifts the bag once and charges four rupees and we have lifted it for at least ten times, so we have already done a labour of 40 rupees, but that labour is not accounted for”.

It is a natural expectation to yearn for the rewards of the hard work, but the delivery of rewards can be thwarted by rainfall over which the farmer has no control. The harder a farmer works the greater is the expectation of reward. This ascendant expectation can suddenly shatter if it does not rain. It seems that, in the profession of agriculture in India, hard work does not reduce the uncertainties of a farmer’s life. The use of the term job security indicates that occupations are intended to bring a sense of security in one’s life. For a farmer,
even when he is occupied in agriculture there is no sense of security, and uncertainty prevails.

Even if it rains in abundance, a farmer is not sure about the price that his commodity might fetch. This is because he has no information about the supply and demand of commodities in other regional and international markets. In such situations farmers often incur huge losses. This can be understood from the following statement of a farmer.

“Usually the price of garlic is around six thousand rupees per quintal. But this year the price has gone down to one thousand rupees per quintal. At my own place I have stocked around fifty quintals. We thought that the rates will increase…Also, we purchased from some other farmers…Finally, we sold it for 400 rupees per quintal so we lost a lot of money…So you can imagine our losses”.

Thus, even after abundant rainfall and a plentiful harvest, farmers are not sure whether their commodities will yield losses or profit. In such situations of financial losses, farmers often expect the government to come to their aid. In the absence of governmental intervention, farmers rely on their social capital. They turn to the local village-based traders and shopkeepers for financial help, but they are charged exorbitant interest rates. It seems that for a farmer social capital does not bring a sense of security to the farmer’s life. One farmer described the extent of interest paid by a typical Indian farmer as follows:

“In times of urgencies or financial crises the only source of help to the farmer is the local trader. But even the local trader charges a high interest rate…”

Uncertainty associated with agriculture makes the farmers vulnerable for seeking help from other parties. This vulnerability opens the avenues for the exploitation of the farmers. They are exploited by the local traders who charge them high interest rates or they are exploited by the government agencies. I will present two examples of such an exploitation of the farmers.
Chapter 8 – Discussion

The first presents the exploitation by local traders and shopkeepers and the second presents the exploitation by the local village based government officers. One government employee who had a farming background presented the exploitation of the farmers as follows:

“A farmer is in problems everywhere, in India. Whether it is the yard, the society or anywhere you will find that the farmer is in problems. He is exploited everywhere and hence makes no progress… so the farmer feels dejected and depressed… I will give another example… The farmer produces milk and sells it to the local supplier. The local supplier sells the milk forward so that it reaches the city. The supplier is the middleman; he adulterates the quality of milk by adding water to it. This increases his profit. If someone complaints about the milk quality, the middleman deducts the amount payables to the farmer”.

Notice here that the government officer mentions “so the farmer feels dejected and depressed”. This indicates that such exploitation results in lower propensity for initiative because a sense of dejection prevails amongst the farmers.

At the village level also farmers are exploited by the village-based government officers. Often the village-based government officers keep information from the farmers. One farmer explained this, while showing his farm. I asked him about the area of the farm, and the farmer described the measurement using colloquial terms. I then asked him about the equivalence of this term in standard length and breadth. The reply of the farmer was as follows:

“I do not know the exact dimensions for the Kadi. The Patwaris (village accountant) do not disclose the exact dimensions. This is because if they disclose then everyone will start measuring their fields. Who is then going to need the Patwari?”

It also seems that a typical village in India has an undercurrent of exploitation and uncertainty which results in refrainment from initiatives that may be beneficial for their agriculture. This
could be inferred from the following statement of a farmer who was showing a farm to me. The farm was not fenced and so I asked him, why it was left unfenced as wild animals could destroy the crops. His response was as follows:

“You can see that the farmer has not fenced his field…if he gets it fenced…then in the summers…there are thieves who will cut the fence wires and will sell them…these iron wires are sold for nearly forty rupees per kilogram. The other methods of fencing such as using cement poles are too costly”.

A sense of exploitation prevails when a party does not get a fair treatment when it was possible for the other party to do so i.e., there were no constraints to do a fair treatment. I have already indicated that partly this sense of unfair treatment comes to the farmer because of the hardships of agriculture. Often the farmers feel that their rewards do not match the efforts that they put into agriculture. In financial and economic sense, farmers feel a sense of exploitation because of unfair prices provided by the traders. This raises another question - how do farmers assess the economic value of the commodity produced?

This requires an understanding of the cost calculations by a farmer for producing his commodity. I have already mentioned in the previous chapter that agriculture in India is not mechanised and is a labour intensive activity. Some of these examples are presented below. One farmer described to me the agricultural practices of farmers related to harvesting as follows:

“This crop is of wheat…it will ripen in the next 15-20 days. Then, labourers and our family members they will cut these manually…the crop will be cut from the bottom…and a person stands at the back…and makes bundles…these bundles are taken to a different place…We will then store them into bags and will transport them to the yard”
Notice that the farmer mentions that his family members will cut the crops. This indicates that agriculture is a family activity in India. The above statements indicate that the farmers in India employ their family members in agricultural activities. Since family members are involved in agriculture, no records are maintained of the labour incurred by them. If labour is a main component, which it is, in the Indian agriculture, and it stands unaccounted for, then it must be impossible to estimate the investments that are made in agriculture. Some of the questions related to estimating agricultural costs cannot be answered. Examples of such questions include: how many labourers were employed, what wage was paid to labourers, how many hours did the labourer work for, what was the market rent of the agricultural land, etc.

This presents a cost estimation problem. A farmer in India has a partial estimate of the agricultural costs. For example, he knows the cost of pesticide, the electricity bill that he pays for irrigating the land and the labour that he employs apart from the family members. However, there is no precise estimate of the costs incurred during agriculture. This is not limited to agriculture alone; it seems to be true for various other agricultural commodities that the farmers produce. I will present an example. I was discussing with a farmer about his agricultural costs, and he made the following statement about his livestock costs.

“We have got so many buffalos and cows, we have to feed them...so there is a high maintenance cost and at the end of the year what we make is around 1500 rupees of profit that is too less. Those who see these animals, they think that we are quite affluent. On the contrary we hardly make any money. Last year we purchased a buffalo for 35000 rupees, we were able to milk it for a few days and then the animal died. So the initial amount was gone and then we had to purchase another one for 35000. Then there is the interest that we pay on the amount so the price of the buffalo
worked out actually for 70000 but then what do we do. That is why I stopped doing agriculture”.

Observe here that the farmer mentions “we have to feed them...” However, he has no definite estimates of the feeding costs. As a commercial activity, the farmers do not maintain the data of feeding costs of the livestock. Also, observe that when the farmer mentions that the “animal died” he does not say anything about the investments done in maintenance costs, but only perceives that the loss was of the cost of purchase. In the absence of the cost estimation, the pricing of the farmer’s commodity cannot be determined. Without the knowledge of the global commodity prices, a farmer has no estimate of the selling price of the commodity. He does not know the base price below which he should not negotiate the commodity rates. This weakens his position in negotiations.

It is also pertinent to mention that the resources that the farmer keeps unaccounted for are the same resources for which he pays a price in the market. Labour is a resource that a farmer employs. He usually keeps no records of the labour done in agriculture. Often children, siblings, close family members labour in agriculture without any direct financial rewards. The rewards accrue to the entire family, and of course, the cost is also borne by the entire family. However, when the farmer reaches the yard, he has to pay for the labour.

Let’s look at another resource namely the commodity itself. While weighing the commodity, the traders standardise the commodity bags. This process has been explained in the previous chapter. During standardisation, some commodity from the farmer’s bag is wasted. This loss is not accounted for in payments to farmers. In fact, such grains are collected and donated to the poor people. The following statement of a private partner employee describes this phenomenon:
“The traders do the standardisation of the bags while weighing…there is a lot of wastage during this process. Generally the commodity that is wasted is collected through a public trust and then the poor people are fed through it. In this yard the process is that the wastage commodity is collected and then it is auctioned. The collections from this auction are used in philanthropic activities. In another yard, they constructed a worship place from such collections. In some yards the labours claim the wasted commodity and so they keep it”.

Notice here that the wasted commodity is not returned to the farmer. Since returning seems impractical considering the crowded situation, there should be some efforts to adjust the amount in payments to farmers. If the farmer intends to purchase the same commodity, in the same quantity as wasted in the yard, he has to pay a price for it. Thus, the resources that are taken for granted by a farmer and are not accounted are the same resources for which he pays some price in the market. An example of such a state of affairs is obtained from the following statement of the farmer:

“It is the farmer who keeps his patience on all such manipulations. Imagine if we go to buy any commodity from the market, will they (traders/shopkeepers) even give ten grams of their commodity to us free”.

Let me present another example to understand the resource usage of farmers. I visited a farmer who had recently had a harvest of green peas. A relative of this farmer who also happened to be my acquaintance was with me. While we were returning, the farmer gave large quantities of fresh green peas to this relative. The car was filled with these peas, and my estimate is that purchasing these peas in the market would cost the relative at least two hundred rupees, but the farmer gave it free. Thus, farmers delegate some of their resources for the maintenance of social relationships – both labour as well as commodity. Also since,
they do not have knowledge of the actual costs of their commodity; they often exercise restraint even when they know that they are being exploited. The fact that there is a market value of the resources that farmers exchange freely further contributes to the sense of exploitation of farmers. The market prices every resource while the farmers do not.

Thus, uncertainty and exploitative tendencies are two attributes of context that refrain the farmers from taking new initiatives for their betterment. In fact, one of these new initiatives is the propensity to trust. With this acute sense of exploitation and uncertainty, the farmer approaches the yard. He manages to reach the yard after considerable physical hardships of travelling long distances. The yards lack adequate infrastructure and often the tired and exhausted farmers do not get the basic amenities such as clean drinking water or a place to sit. Furthermore, they are involved in petty conflicts with traders and labourers, with whom they already had experiences of exploitation (for example, of fixing commodity prices by trader cartels) and uncertainty (for example uncertainty associated with the time of payment).

This has a direct bearing on the propensity to trust i.e., they do not trust anyone. The farmers refrain from taking the trust initiatives. They obviously assume that the traders and government officers are no different and are intending to exploit them. Such a socio-psychological make-up has a direct impact on their behaviour. This explains the quality manipulations or the signing multiple contracts by the farmers.

8.2 Government perspective

Externally the government officers of the yard interact with three primary stakeholders namely farmers, traders and private partners. Internally they interact with their peers, seniors and juniors.

Discussions with the government officers indicate that they perceive all the stakeholders as fraudulent and lacking honesty. For example, farmers are involved in quality manipulations
and signing multiple contracts, trader under-report their commodities and the private partners generate false reports to prove the effectiveness of computerisation. Comparison and triangulation with other stakeholders indicates that there is plausibility in the perception of the government officers. For example, a trader clearly mentioned names of some traders who were involved in doing unregistered deals i.e., trade transactions for which no records are maintained. According to the trader:

“traders procure the commodities directly from villages, they do not pay any tax to the government…as they often do unregistered deals (URD)…they supply these URD commodities to plants in other states…for example, two companies XXXX and YYYYY mostly purchase 80 per cent of the commodities through URD”.

Another farmer who was also a trader also corroborated that significant portion of transactions are done to avoid the tax payments. According to the farmer:

“In the yard premises if we buy from the farmers then we have to pay a yard tax of. However there are some called as un-registered deals…so most of the deals now are covert…there are thefts of the tax payments…so what the big companies do is that they take around 60-70 per cent commodity in the form of tax paid commodities…and they purchase the remaining commodities as un-registered deals i.e., URD…so there are no records for these deals…there are no records or bills of such deals…they are not shown or recorded anywhere…”

Similarly, farmers also agreed that farmers were involved in quality manipulations. For example, one farmer, while showing a field to me, mentioned the following with regard to quality manipulations:

“See in this field you will observe that the wheat crop is not homogenous. Some grains have grown tall while others are stunted…his intention is to sell the commodity
in yard. So if the higher quality grains are mixed with the lower quality, there are chances that the commodity can be sold for higher rates”.

Similarly, the private partners were involved in incorrect reporting. One government office described this as follows:

“I will give you one more example of the kind of tricks that private partners play to prove the effectiveness of the IS… the private partners do such false reporting to show that the IS has been successful in recovering the service charge payments”.

Externally the government officers deal with stakeholders whom they perceive as treacherous. Internally they deal with their peers, juniors and senior officers. My discussion with the government officers indicated that the junior officers perceived the senior officers as apathetic to their problems. They felt that the senior officers were not sincerely interested in resolving the problems of the juniors. They felt that the senior officers in the yard were deputed from other departments, for a small period of time, and would return to their department after serving a fixed term. Consequently they were not truly interested in resolving the yard problems.

Discussions with various yard employees across different yards revealed that such a perception was widespread amongst the yard employees. For example in one of the yards, a government officer was repeatedly reporting a problem to his seniors and was seeking their intervention. However, the seniors did not intervene to resolve the problem. The lack of intervention eventually escalated the problem, and finally resulted in a conflict. I was privy to this conflict in the yard and observed that the conflict consumed at least two working days of the yard employees. The government officer described the conflict to me as under:

“There is one employee who comes drunk to the office every day. Someone made a complaint against him today. So his medical needs to be done. Such problems are difficult to solve. The problem is that this employee sits and hobnobs with the thugs
of the nearby slums so he may take revenge any time. I have been telling my seniors about this, but the officers hardly care to listen”.

The perception amongst the junior officers about the apathy of the seniors can be obtained from the following statement of a government officer. The statement indicates that a prolonged experience of apathy from the senior officers may make a junior officer disinterested in resolving the yard issues. An example can be obtained from the following statement of a government officer:

“The senior officers in the board are least interested in solving the real problems. They do not want to come here and see the practical problems. When they (Mandi Board) do not want to make any proper use of my abilities why should I be any more interested? ... Slowly I have now become disinterested in the affairs of the yard. Let it go, who cares?”

A vivid example, of the role of a deputed officer is obtained from the statement of a government officer whom I approached for an interview. This officer was on deputation and at the outset of the interview mentioned the following to me:

“I do not have a background of yard. I am on deputation from the XXXX department. So I can give you only some basic information, but I suggest that you meet YYY Y he is quite knowledgeable and will discuss the issues in greater detail”.

Lack of knowledge of yard rules, regulations and procedures results in a lack of interest in the yard activities. Also, the senior officers do not expect rewards such as promotions during their postings in the yards. They are posted in the yard only for a few years and will eventually return to their parent department. It is in their parent department that they may strive for organisational growth. In yards, they are less concerned for their personal organisational growth. Thus, while serving in the yards, they do not feel a commitment
towards the yards. The following statement of a government officer corroborates this conclusion:

“The maximum people here are on deputation. The secretary here is on deputation, the deputy director is on deputation from the XXXX department, the joint director is on deputation from the YYYY department. So they have to be here for the maximum of three to four years and then they would return back to their home department. So at the high level we do not have officers who are from this department”

This lack of knowledge and commitment makes the deputed staff disinterested in the yard issues. The lack of interest begets a lack of ownership. The lack of ownership presents a situation whereby empathy cannot be expected from the deputed staff. Lack of empathy constrains the ability of the deputed staff to resolve the genuine problems of their subordinates. The inability to resolve these problems, when there is an expectation for intervention, impacts the trustworthiness of the deputed staff.

Apart from the rift between the deputed senior staff and their junior officers, there seemed to be a general rift between the senior officers and junior officers. The junior officers, particularly those who blamed the senior deputed officers, were themselves hegemonic to their junior officers. For example, the following conversation happened between a junior and senior officer, while I was interviewing one of them:

SENIOR OFFICER: Call that idiot…

JUNIOR OFFICER: yes sir

JUNIOR OFFICER: Sir, I am sorry I did not count one booklet; it contained data for 2000 bags

SENIOR OFFICER: The yard does not pay you for making these types of mistakes...
The discussion clearly indicates that the senior officers were *hegemonic* towards their juniors, and did not treat them with respect. Another discussion between a senior officer and his junior officer is presented below. This presents a case whereby the junior officers did not respect their seniors:

SENIOR OFFICER: (Calls another subordinate) Hey, XXXX (junior officer) …just please relieve YYYYY (another junior officer) for some time…

XXXX (junior officer): why should he be relieved? What will I do if he is relieved?

SENIOR OFFICER: Hey??...then who else is there…just relieve him for five minutes so that he can make the Tax Paid certificate…and you go to the auction of the Red Chillies…

XXXX (junior officer): I will not go to that auction

SENIOR OFFICER: see we have to finish the auction of 5000 bags today in the Red chillies…earlier when YYYYY was not there…even then you used to do it alone…tell me since you have been dealing in the auction of the Soybean, have you gone in any other auction, have I ever asked you to go to any other auction?

XXXX (junior officer): Yes, I have gone in other auctions whenever you asked me to go…

SENIOR OFFICER: I never asked you to go…

XXXX (junior officer): That is not true at all; you have asked me many times…

The comparison of both discussions clearly indicates that the seniors were hegemonic towards their juniors and the juniors were also disrespectful towards their seniors. Thus, the overall organisational culture of the government department indicated that the employees were not *careful* about the other employees. It seems that the government officers resort to
displays of hegemony as a carefully chosen strategy to maintain their authority in the yards. For example, one government officer defended high hegemonic attitude on the grounds that yards are situated close to the slums and often thugs from the slum disturb the yard functioning. According to the officer:

“You need a tough person here - one with a baton... Here you need to show your strength and then the goons will fear you. In a month or two you need to display your authority. That keeps things in control. Because we are amongst the goons and if we do not show the strength, we will be in a big problem. Even the traders here are fearful of the goons that reside in the area close to yard. You cannot imagine what they can do. Close to the gates of the yards, these goons have done encroachment and sometimes the officers come here to survey the encroachment. If you show the officers the encroached area, then it becomes a problem for you”.

The officer further added, generalising his previous statement, that:

“See if we do not show our authority, they think that we are incompetent and weak. And so from time to time we ought to show them our authority. See in this yard you will find all kinds of traders, those who are ready to quarrel and those who are willing to cooperate. The main owners of the firms hardly come here for auction. Their employees come here and they act as if they are the owners. They try to show that they are from big firm. They like to show off”.

This indicates that the yard authorities were displaying their authority as they felt that others were also “showing off”. Such a perception indicates mistrust.

Often it happens that the hegemony is displayed against the poor farmers. Such an incidence happened while I was visiting the yard with a government officer, and a farmer approached the officer to inquire about the latest commodity rate:
Chapter 8 – Discussion

Farmer (to government officer): “what is the model rate of gram today?”

Government officer (to the farmer): “I do not like talking on the road…come to my office if you want to know the rates…”

Farmer (replies back to the government officer): “I am just asking for the yard rates…nothing big…what is the problem in telling the rates to me now…”

Government officer (ignores the farmer and walks ahead)...

The internal environment of the government officers clearly marked disrespect and lack of care for their juniors and seniors. On the other hand, the external stakeholders; traders, farmers and private partners were viewed by the government officers as deceptive, inefficient and lacking honesty and integrity. The overall context of the government officers is such that their propensity to trust the other stakeholders is reduced.

8.3 Private partner perspective

Constant comparison of the private partner interviews suggests that private partners perceived the government as the primary agency responsible for the failure of the computerisation project. The private partners were associated with the project since 2003. Their organisational culture was different from that of the government. For example, while sycophancy of the seniors is an accepted norm in the government, this was not so with the private partners. The following excerpt by a private partner employee explains the point:

“I have often observed that if any senior officer from the board comes to visit the yard then all expenses of his visit, all the expenses of whatever he does are borne by the yard secretary. But strangely, I have never seen a yard secretary claiming these expenses. I fail to understand this. Why the secretary does not claim these expenses?
Is it not his right? Is he not entitled to claim these expenses? What is the reason? Why he does not claims these expenses?

Observe here that the private partner presents various questions in the last section of the excerpt. Proceeding to these questions, the employee mentions “I fail to understand this”. This indicates that the employee finds it extremely difficult to understand the organisational culture of the government.

Scaling up of the codes from the private partners indicate that the private partners viewed target setting as the cause of the problems of the yards. According to them often the senior officers set unrealistic targets for the yard employees. This often resulted in corruption as the employees, would try to meet the targets in some creative way so as avoid the wrath of the senior officers. One private partner employee described this as under:

“See I have discussed this issue of target setting …with a lot of yard secretaries…I have observed that the secretaries are in a lot of pressure because of their monthly targets…if they do not achieve the target…then they try to appease the officers in the accounts department”.

Comparison of the statement of the private partner on target setting with that the government officer indicates that target setting, indeed, presents a difficult challenge to the yard employees, and is a cause of corruption within the yard. Describing the changes in the yards over the past few years, the government officer mentioned the following:

“now the context has changed…now for each yard they have set a target revenue…for example the last years revenue of this yard was nine million rupees…now I have to make it a ten million this year …that is it… their thought is that…there should be the scope of income growth…but agriculture in India is…dependent on the wish of the almighty…there may be no rains…or there may be frost…and the harvest is
destroyed…but to the policy makers this hardly matters…they just set revenue targets to be achieved…but how do we achieve that…”

The overall perception of the private partners was that the government – with its inefficient and corrupt employees – was primarily responsible for the failure of computerisation. For example, one private partner employee mentioned that:

“and today if we tell them that their employees are committing mistakes…they say that the government employees do not have the proper capacity as they are uneducated and illiterate…if that is true then they should not at least blame the private partners for all their mistakes…if they want to run this project on computerisation…they should run it…if they do not want then they should not run…”

The private partners also felt that the government had not delegated enough powers to them, and hence the private partner employees were not able to discharge their responsibilities effectively.

Apart from perceiving that the government was the sole agency that was responsible for the yard problems, the private partners also indicated their distrust for the other stakeholders namely the traders and farmers.

According to them the traders were a powerful stakeholder group in the yard, and they were often hegemonic in their behaviour. They often disrupt the functioning of the yards, if their demands are not fulfilled. For example, one of the yards initiated some change in the auction process. This change was not acceptable to the traders, and the entire episode was described by the private partners as under:

“the yard had also started a different auction type a few years back…in this auction the farmers were issued a token number…at their token number call…the farmers would show a sample of their commodity…and the traders would auction the commodity based on the sample…but then the traders did not accept such a system as
they had to wait for long hours...as well as they were not ready to trust the sample for the commodity...the board tried hard to run this system in various yards...the yard committee also insisted us to implement this auction type...our computer programmes and systems were made to change...but then the new auction type was abandoned as the traders did not favour it...”

The private partners also perceived that the farmers in the yards were aggressive, hegemonic and politically inclined. One of the private partner employees described the behaviour of the farmers as under:

the farmers often create problems...they go on wreckage...they are involved in politics...they become too aggressive...and so sometimes even I feel so depressed...I feel that why should I at all work in such a system?

Discussions with the private partners indicated that they were convinced that no improvements could be made in the overall functioning of the yards. One private partner employee, for example, described this situation as under:

“Our senior says that the yards can never improve...see you cannot change the farmers...and the farmers have the largest population in the yard...so the system cannot be changed fundamentally...then there are corrupt officers and dishonest traders...so what I mean to say is that everyone is equally responsible for the state of yard...and no one wants to improve their working...no one wants to improve their mistakes...”

The discussion with the private partners indicates that they primarily perceived that the government was responsible for the problems in the yards. However, they also felt that the other stakeholders were also dishonest. They also felt that while changing the system was still possible, but changing the attitude of stakeholders was nearly an impossible task. Given the stakeholder behaviour, the private partners had low levels of trust on all other stakeholders.
8.4 Trader perspective

The traders blamed the government for imposing unnecessary tax regimes on them. They felt that the government was unfair in imposing various types of taxes on the traders. For example, when I asked one trader about the changes that he had seen in the yards, in the last ten years, his immediate response was as under:

“Earlier the weigh balances were all manual...these were later replaced by the electronic balances...this has been recent development somewhere around 2007...also earlier there was no Value added tax (VAT) on soybean. Also earlier the yard tax was only one per cent but that was increased by the government to two per cent”.

This trader described the various taxes that are imposed by the state government and mentioned that the tax policy of the state government eventually intended to “to finish the trade houses in the state”.

Thus, the traders felt that the inordinate tax regime of the state government resulted in an unfair competition as this led some traders to do unregistered deals. Though the tax/service charge rate at the yard was only two per cent of the transaction value, the traders felt that the actual tax that they had to pay was much more. The traders felt that the government was not fair in the levying the taxes. This can be inferred from the statement of the trader as he mentions “of these the entry tax is the most irrelevant tax…”

Apart from the perception about the unfair tax regimes, the traders also felt that corruption was rampant in the government and that the yard employees wanted a share in the profits reaped by the traders. The following statement of the trader clearly indicates such a perception:

“suppose that I do not have any stock today...and that I have purchased some commodity today....and have deposited a service charge of rupees twenty thousand as
advance tax...so against that advance...I can purchase the commodities worth one million rupees...and if I am doing transactions of more than one million then as per the law... yard should not grant me NOC...but see in this yard the committee does not issue an NOC in such cases but in other yards it does...earlier billions of rupees were siphoned off through this manner...basically the yard employees are corrupt and they want to have a share in the profits of the trader...see the yard has employee sitting on gate and everywhere and so how does the unregistered deal happen...but my understanding is that corruption happens at higher levels...see once upon a time there used to be a lot of trade in this yard but now this has reduced a lot...”

Apart from perceiving the government as unfair and corrupt, the traders also perceived that some traders were involved in unregistered deals. Reference to this perception of the traders about other traders has been made earlier. Thus, the overall perception of the traders was that the government was corrupt and unfair, the traders were involved in unregistered deals and that the farmers did quality manipulations.

8.5 An integrated perspective:

My analysis suggests that there was a high level of mistrust amongst all the stakeholders. A matrix below (Table 8-1) presents the perceptions of stakeholders on measures such as honesty, ability and care. It is to be observed that all the cells are filled with high negative perceptions about the other stakeholders.

In order to have an integrated perspective from all stakeholders, I looked at all the interview summaries and the subsequent themes in a holistic manner. This provides an integrated model of stakeholder perceptions and issues. Figure 8-5 below presents this relationship model. The model presents four key constructs that contribute to trust formation. These include stakeholder attitude, stakeholder sincerity, stakeholder honesty and stakeholder efficiency.
Within stakeholder attitude, it suggests that hegemonic attitude has negative implications on trust formation.
### Table 8-1: Matrix of stakeholder perceptions

<table>
<thead>
<tr>
<th>Government officers perception about</th>
<th>Government Officers</th>
<th>Traders</th>
<th>Private Partners</th>
<th>Farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of care (High)</td>
<td>Lack of honesty (High)</td>
<td>Lack of honesty (High)</td>
<td>Lack of honesty (High)</td>
<td>Lack of honesty (Middle to High)</td>
</tr>
<tr>
<td>Lack of honesty (High)</td>
<td></td>
<td></td>
<td>Lack of ability (High)</td>
<td>Lack of sincerity (High)</td>
</tr>
<tr>
<td>Lack of honesty (High)</td>
<td></td>
<td></td>
<td>NA</td>
<td>Lack of honesty (Low)</td>
</tr>
<tr>
<td>Lack of ability (High)</td>
<td></td>
<td></td>
<td>NA</td>
<td>Lack of honesty (High)</td>
</tr>
<tr>
<td>Private partners perception about</td>
<td>Lack of honesty (High)</td>
<td>Lack of honesty (High)</td>
<td>NA</td>
<td>Lack of ability (High)</td>
</tr>
<tr>
<td>Lack of ability (High)</td>
<td></td>
<td></td>
<td>NA</td>
<td>Lack of ability (High)</td>
</tr>
<tr>
<td>Farmers perception about</td>
<td>Lack of honesty (High)</td>
<td>Lack of honesty (High)</td>
<td>NA</td>
<td>Lack of ability (High)</td>
</tr>
</tbody>
</table>
Government employees do corruption (for example, take bribes)

Traders do unregistered trade transactions

Private partners manipulate the reports to prove efficiency of IS

Traders are a powerful lobby who exercise considerable hegemony over other stakeholders.

Farmers are politically powerful and are involved in hegemony

Government officers have power and are hegemonic in their behavior

All stakeholders lack honesty

Stakeholder behavior (Lack of honesty)

Stakeholder sincerity (Lack of sincerity)

Stakeholder efficiency (Lack of efficiency)

Government officers are insincere

Private partners are insincere

Government employees are inefficient

Private partners are inefficient

Farmers, traders, private partners and government officers all lack sincerity

Attitude towards other stakeholders (Hegemony)

Impact on IS implementation

Figure 8-5: Integrated model of trust formation
The yard case reveals that (mis)trust formation is related to four constructs namely *lack of sincerity, lack of honesty, lack of efficiency* and *hegemony*. I now briefly discuss the variations in these constructs based on the stakeholder group.

_Honesty_ plays a vital role in the trust formation towards the farmers. It is a well-known fact to all the stakeholders that farmers manipulate the commodity quality. Also, _hegemony_ plays a crucial role in the trust formation towards the farmers because both the government officers and private partners have mentioned that farmers are hegemonic. Table 8-2 and 8-3 below presents the various excerpts indicating _quality manipulations_ and _hegemonic_ behaviour of the farmers.

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>INTERVIEW EXCERPT – QUALITY MANIPULATIONS BY FARMERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer</td>
<td>…if you mix the superior variety with the inferior, you could sell the commodity for the price of superior quality…</td>
</tr>
<tr>
<td>Private Partner</td>
<td>What is shown as sample is different from the actual commodity...</td>
</tr>
<tr>
<td>Government officer</td>
<td>…it had a very good quality in the sample (top portion of the bag)...but the bottom had really a bad quality…</td>
</tr>
<tr>
<td>Trader</td>
<td>Suppose that a farmer is coming to the yard...then he brings commodities of various people...so the commodity gets mixed…</td>
</tr>
</tbody>
</table>

*Table 8-2: Excerpts on quality manipulations*
Chapter 8 – Discussion

**Table 8-3: Excerpts on farmer hegemony**

Honesty, sincerity and efficiency play a prominent role in the trust formation for both the private partners and government officers. Also, hegemony plays a role in the trust formation on the government officers. Within the government, the junior officers have blamed the senior officers for hegemonic behaviour. Also, the private partners have blamed the government officers as being hegemonic. Observations from the field have also indicated that government officers are hegemonic. None of the private partner employees made similar complaints about their seniors. This indicates that hegemonic behaviour was not acceptable in the organisational culture of the private partners. Table 8-4 and 8-5 below present the excerpts on lack of honesty, sincerity and efficiency for both the private partners and government officers. Table 8-6 presents the excerpts related to hegemony of the government officers.
### Stakeholder Group INTERVIEW EXCERPT – LACK OF EFFICIENCY/ SINCERITY/ HONESTY IN GOVERNMENT OFFICER

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>INTERVIEW EXCERPT – LACK OF EFFICIENCY/ SINCERITY/ HONESTY IN GOVERNMENT OFFICER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Partner</td>
<td>See the yard employees are old generation employees…they are not properly skilled and they do not even know typing…</td>
</tr>
<tr>
<td>Government officer</td>
<td>We actually do not have any plan of work for every day…everything is done on ad hoc basis in yard…</td>
</tr>
<tr>
<td>Trader</td>
<td>See often the government employees who do the auction do not remember the names of the traders who have won the bid…many of the government employees are not present during the auction…</td>
</tr>
</tbody>
</table>

Table 8-4: Excerpts on lack of honesty, sincerity and efficiency of government officers

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>INTERVIEW EXCERPT – LACK OF EFFICIENCY/ SINCERITY/ HONESTY IN PRIVATE PARTNERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government officer</td>
<td>…they do all kinds of wrong things and manipulations…</td>
</tr>
<tr>
<td></td>
<td>Basically their intentions are not genuine…</td>
</tr>
<tr>
<td></td>
<td>Even in the data entry…they are doing a lot of mistakes…</td>
</tr>
</tbody>
</table>

Table 8-5: Excerpts on lack of honesty, sincerity and efficiency of private partners

---

44Farmers and traders do not interact with the private partners and hence their perceptions about the private partners are not included.
### INTERVIEW EXCERPT – HEGEMONY OF GOVERNMENT OFFICERS

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>Interview Excerpt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Partner</td>
<td>See there has been a statement of XXXX government officer in the press about our working…he is doing a lot of hegemony now…</td>
</tr>
<tr>
<td>Government Officers</td>
<td>The board which is basically an advisory body…now acts as a statutory body…its functioning has overall become like that of a controlling body…</td>
</tr>
<tr>
<td></td>
<td>You need a tough person here…a person with a baton…that keeps things in control…</td>
</tr>
</tbody>
</table>

**Table 8-6: Excerpts on hegemony of government officers**

*Honesty* and *hegemony* play a prominent role in the trust formation on the traders. Table 8-7 and 8-8 below present some of the excerpts that indicate that traders lacked honesty and were hegemonic in their behaviour.
## INTERVIEW EXCERPT – LACK OF HONESTY BY THE TRADERS

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>INTERVIEW EXCERPT – LACK OF HONESTY BY THE TRADERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer</td>
<td>…the traders are all culprits…without theft and deceit they do not work…</td>
</tr>
<tr>
<td>Private Partner</td>
<td>Traders do such crafty manipulations…</td>
</tr>
<tr>
<td>Government officer</td>
<td>Traders say that they are sending the commodity for cleaning…and then these commodities do not return in the yard and are sold outside…</td>
</tr>
<tr>
<td>Trader</td>
<td>Traders often do unregistered deals (URD)… for example…</td>
</tr>
</tbody>
</table>

Table 8-7: Excerpts on lack of honesty of traders
### Table 8-8: Excerpts on hegemony of traders

A stakeholder-wise analysis of the constructs related to trust formation suggests that for each stakeholder the constructs related to trust formation are different. For example, *efficiency* is not related to trust formation on the farmers. Similarly, *hegemony* is not related to the trust formation on the private partners. Figure 8-6 below presents the stakeholder-wise relationship for trust formation.

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>INTERVIEW EXCERPT – HEGEMONY OF TRADERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Partner</td>
<td>The fact is that there have been government orders…but the traders actually did a strike and they refused to purchase the produce of the farmers...</td>
</tr>
<tr>
<td></td>
<td>…the traders exercise a lot of power in the yard… they force their will on the Mandi committee president as well as the secretary…a lot of political leaders also come for their backing…</td>
</tr>
<tr>
<td>Government Officers</td>
<td>The most influential stakeholders are the traders… the traders influence the policy…they also donate the funds for the political parties…so they are quite influential…</td>
</tr>
</tbody>
</table>
Figure 8-6: Stakeholder-wise trust formation constructs
Some conclusions can be drawn from the integration of the stakeholder trust formation constructs. First, for stakeholder groups that are formally organised i.e., within a formal organisational structure such as private partners, efficiency is a distinguishing construct. It is distinguishing in the sense that efficiency is not related to trust formation for the informally organised stakeholder groups such as farmers and traders. Second, honesty is the only common trust formation construct across all the stakeholder groups. Third, hegemony is a common construct in both the informally organized group as well as in one of the formally organised stakeholder groups (government). Table 8-9 below presents a matrix of stakeholder organisation structure (formal or informal) against the constructs related to trust formation.

<table>
<thead>
<tr>
<th></th>
<th>Honesty</th>
<th>Sincerity</th>
<th>Efficiency</th>
<th>Hegemony (Lack of)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formal Organisational Structure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Private partners</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td><strong>Informal Organisation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmers</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Traders</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

Table 8-9: Stakeholder organisation structure and trust formation constructs

This suggests that irrespective of the grouping of the stakeholder structures (formal or informal), honesty and hegemony are related to trust formation. Since some stakeholders will always be informally organized this suggests that, for trust formation, these two constructs are the prime requirements. In the current case, both these constructs are the prime constructs that have an impact on trust formation. This suggests the following two conclusions:

1. Hegemonic attitude is negatively related to trust formation and has a negative impact on successful implementation of agricultural marketing information systems in particular (and information systems in general).
2. *Lack of honesty* leads to lack of trust and has a negative impact on successful implementation of agricultural marketing information systems in particular (and information systems in general).

Figure 8-7 below presents the relationship between *hegemony, honesty, trust formation*, and its impact on IS implementation. The figure suggests that hegemony and honesty are the primary constructs that impact trust formation, and trust is a key requirement for successful implementation of agricultural marketing information systems.

![Figure 8-7: Trust formation constructs](image)

The discussion above suggests that *stakeholder trust* is a key issue in the successful implementation of agricultural marketing information systems in developing countries. This suggests that *trust* is a necessary condition for successful IS implementation. However, is it also a *sufficient* condition?

Empirical evidence suggests that indeed yard stakeholders do not trust each other and that they blamed the other stakeholder group for various problems present in the yard. But at the same time empirical evidence also suggests that yard stakeholders were also aware about their own behaviour that had a negative impact on functioning of the yards. For instance, farmers were aware of their involvement in the acts of quality manipulations. The traders
accepted that it was common for them to under-report their trade transactions and the
government officer readily agreed to the fact that they did “corruption”. Table 8-10 below
presents some excerpts, in which the stakeholder groups indicated that they were well aware
of their own behaviour.

<table>
<thead>
<tr>
<th>Trader</th>
<th>Some companies do not register their purchase of the soya. Then they sell the processed soya products such as de-oiled cakes, oil, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Officer</td>
<td>See I am not a puritan…even I do a little (corruption)…but only as per my requirement…</td>
</tr>
<tr>
<td>Farmers</td>
<td>…farmers did not provide the promised quality to the companies…instead they mixed the lower varieties with the higher ones…Sometimes the farmers do tricks they show good commodity in the sample…</td>
</tr>
</tbody>
</table>

| Table 8-10: Statement of stakeholders indicating their awareness of their behaviour |

This indicated that each stakeholder group was involved in certain activities that had a
negative impact on *trust*, but at the same time, the stakeholders were also aware of their
behaviour. This suggested that everyone knew what the others were doing. It seems as if each
stakeholder accepted the *untrustworthy behaviour* of the other stakeholder, including
themselves, in spite of being aware that such behaviour had a negative impact on the overall
functioning of the yard. Let us look at the following excerpt by a government officer:

“It is the weighing process that is the most problematic because those who weigh the commodity, they harass the farmers a lot. They will not weigh the commodity timely; they will not weigh the commodity properly. The weighing labourers are very rude
and rash, some of them are not worth talking to. But the farmer keeps his patience, he
tolerates everything…he has to tolerate everything…he cannot help it…if he fights or
opposes, his payment is delayed…so he tolerates everything…”

Observe here that the government officer mentions that the labourers who weigh the
commodity are hegemonic, dishonest and insincere in fulfilling their responsibilities.
However, the officer also mentions that the farmers tolerate such behaviour of the labourers.
This suggests that stakeholders have a high sense of resignation as they do not have other
alternatives to the yard.

Another excerpt from a farmer will further establish that resignation along with mistrust
presents a major challenge for the functioning of the yards. This excerpt relates to a
discussion I had with a farmer who had just completed the weighing of the commodity. I was
observing that there was some conflict between the labourers and farmers while the weighing
was still in progress. After the conflict de-escalated, I approached the farmers and asked them
about the conflict. The farmer described the conflict as follows:

“See actually it is the duty of the labourer to weigh the commodity. He is required to
lift the commodity from the vehicle and put it on the weight balance. He is also
required to remove it from the weigh balance but they do not do the entire work. So
the labour did not come to do this work yet we had to pay to the labourer. So that is
what happens here…so they got their labour charges even when they had not done the
labour…the rule of the mandi is that the labourer will weigh the commodity and then
will take the charges from us…but here as you may have seen we paid the labourer
charges even when they did not do any labour…see if there is a big lot…say in a truck
…then the labours take interest in unloading it…else they do not take interest…and
suppose we tell them that we need no labour…then they will weigh our commodity
late in the evening…and hence we will be relieved later…so we gave them 50 rupees and also did the labour on our own…so that we may be relieved quickly from the yard…see one of us has come from 20 kilometres and another has come from 30 kilometres...”

The foregoing statement clearly suggests that the farmers agreed to pay the labour charges in spite of the fact that the labourers did not do any labour. The farmer also describes the repercussions of not paying to the labourer - “so that we may be relieved quickly from the yard”. The farmer was fearful that if he will not pay to the labourers, it will have certain consequences i.e., he will not be relieved from the yards timely or that his payments will be delayed. This fear of further delay in the yards, to the already exhausted farmer, forces him to *succumb* to the whims of the labourers. Of course, farmers *mistrust* the labourers, but the economic circumstances are such that, in spite of this *mistrust*, the farmers are willing to participate in transactions with them.

Let us look at another example. The government officers, both senior level and junior level, are well aware that the farmers are involved in quality manipulations, yet they are not willing to install quality checking mechanisms in the yards. For example, one government officer mentioned that quality problems are a prime source of conflicts in the yards and that there were no facilities in the yards to grade the commodity quality. For example, one government officer mentioned this as follows:

> “The farmer does not have grading equipment for these different commodities. So if we can install these different grading machines in the yard such conflicts will be reduced. So computerisation should look into these aspects also”.

In spite of awareness about this issue – an issue that is prevalent for a long time – the government officers ignored the problem and made no effort to resolve it. At another
occasion, the same government officer mentioned that he was not promoted for long years and the first promotion that he received was after twenty seven years of service. His concluding remarks are as follows:

“why should I be any more interested so, slowly, I have now become disinterested in the affairs of the yard…let it go…who cares…”

This attitude clearly suggests that the yard officer had become disinterested in resolving the true issues and problems of the yards. This presents an example that stakeholders are often well aware of the precise nature of yard issues, but they become reluctant in raising these at appropriate forums because they do not trust the appropriate forums ability to resolve the problems. Clearly there are two issues here: reluctance to confront and highlight the issues in appropriate forums and mistrust. The former is resignation. They are resigned to the fact that certain practices are so ingrained in the yard that nothing will change.

Another example, below, will further highlight that stakeholders do become reluctant to confront or resolve the problems. During one of my filed visits, there was a conflict between traders and government officer on starting the auction. I was at that time discussing the yard problems with a government officer. While the discussion was underway, an employee came and informed the officer about the conflict. The subsequent discussion is presented below:

JUNIOR EMPLOYEE: Sir the traders are not starting the auction. They are adamant.
They are asking that the mandi inspector or the auctioneer should be called immediately.

SENIOR OFFICER: Ok I will try to send someone. Maybe you also do not go amongst the traders, sit inside here. Do not go there, let it be…

JUNIOR EMPLOYEE: I have already left the scene…I came here…
SENIOR OFFICER (To me): So this is the first conflict of the day…I am sure there are many more to come…come let’s see…

(Senior officer asks me whether I would want to join him at the scene of conflict; we then go together)

TRADERS: see we were told that the auction will start after half an hour. But you have started it immediately. This is not fair. You should not have said that auction will start after half an hour …

JUNIOR EMPLOYEE: Who told you that the auction will start after half an hour? I never said so. You are lying, no one said that. Our senior is standing here. Why do not you talk to him?

ANOTHER JUNIOR EMPLOYEE (to traders): No one has said that auction will start after half an hour. You are lying.

TRADERS: See there is only one person to do the auction. That is why we are complaining. Ok now since the senior officer has told so let’s start the auction.

Notice here that both the senior as well as the junior officer are hesitant to approach the traders. This initial reluctance clearly indicates that both the government functionaries were perhaps inclined to ignore the problem and perhaps my presence there forced them to probe the matter.

Yet another example can be obtained from the behaviour of the private partners. The private partners are aware that the government officers are inefficient and that the bureaucracy-ridden organisational culture is not supportive of information systems implementation, yet they are not willing to discuss such issues of conflict with the government. The following discussion that I had with the government officer suggests that the private partners have
rarely made an effort to discuss the problems of information systems implementation with the government.

INTERVIEWER: I had a discussion with the private partners and I will tell you their perspective…see the private partners say that since it takes around 45 minutes for the complete process of weighing, it is not possible for them to keep a staff deployed while the various mandi processes are being conducted...

GOVERNMENT OFFICER: See if that is the case then we are there to resolve such issues, they should have brought forth this issue to us, they could have made some effort to discuss this with us. But they never did, they never made an effort for resolving such issues…

The foregoing discussion reveals that the private partners made no effort to sort out their conflicts with the government. They continued to work with them; in spite of the knowledge that such conflicts will eventually have an impact on the overall efficiency of the information system implementation, which in turn will have direct financial repercussions on them. This is resignation.

In both the examples above we see that the parties in the transaction continued to work with each other without resolving their problems, in spite of their awareness that if such problems are not resolved there may be detrimental impact on the developmental intervention. This then presents a much more severe problem than the problem of mistrust alone. Because when there is mistrust alone, parties may voluntarily withdraw from the trade transactions. But mistrust along with resignation presents a major challenge to successful agricultural marketing information systems implementation because stakeholders have to transact with other stakeholders even when they do not trust the stakeholder. Obviously the party that has greater power over the other can dictate its terms in such transactions resulting in further exploitation. Eventually such transactions become recursive because of the fact that
stakeholders have resigned. Figure 8-8 below presents this relationship.

Figure 8-8: Recursive relationship between mistrust and exploitation
The following statement of a farmer suggests that they have to compulsively sell their commodities to the yards. I was trying to understand the other alternatives to the yards. The discussion is presented below:

INTERVIEWER: why do the farmers not sell the commodity to private companies such as ITC e-choupal?

FARMERS: The reason is that, at e-choupal the rates are less compared to the yard. This is because they know that the farmers have not gone to the yard and so they would quote us less rates. Also they work through the agents there and there is only one company. At the yards, however there are at least ten different traders. So the chances are that you will get a better bargain. So to come to mandi is our compulsion…because there no other choice…

Notice here that the farmer mentions that it is out of compulsion that they come to the yards. Thus in spite of the prior knowledge of the problems associated with the yards, the farmers compulsively come to the yard to sell their produce. However, at the same time, they do not raise their voices at appropriate forums so that the functioning of the yards improves and then the next time they visit the yards their misery is reduced. This reluctance is suggestive of resignation.

The foregoing discussion suggests that mistrust alone is not a major challenge for IS implementation. The major challenge for IS implementation in the developing countries is the presence of mistrust along with resignation – whereby parties continue to ignore the fraudulent and deceptive behaviour of the other parties, while reaping the individual benefits and thereby jeopardising the very existence of the system. And all this is done with the prior knowledge that such ignoring will eventually jeopardise the existence of the system itself.

There may be various reasons for the stakeholders to be resigned. These may be self-induced or socially induced. For example, a farmer may have a social function such as a son or
daughter’s marriage or there may be an urgent need to repay a loan instalment. This would force him to again approach the yard and participate in transactions with the traders, whom he perceives as fraudulent. A trader, even knowing that the farmers may manipulate the sample, involves himself in trade transactions because he is motivated by profit incentives. Even if the commodity is of poor quality, a trader can always use such commodity as he mixes various types of commodities. A government officer, even knowing that the private partner is manipulating the MIS reports, does not report it to the appropriate forums (for example senior officers) because he does not trust the forum’s ability to provide a solution to the problem. There may be also socio-psychological reasons for this resignation that are an outcome of cultural influences. For instance farmers choose to exercise patience while transacting with the traders because they are fearful of being delayed. What can information systems do in addressing this issue of fatalistic resignation. However, before discussing the answer, I present the importance of trust.

8.6 Importance of trust

To highlight that distrust played a pivotal role in the case of this yard, I present the statement of a government officer. The officer made this statement while recounting an incident of a visit to a five start hotel with his senior officer. The senior officer ordered tea from the reception desk and this junior officer called the reception desk a couple of times so that the tea could be served quickly. The senior officer, observing his anxiety, asked him not to call the reception desk repeatedly, and suggested him to be patient for some time. The senior officer also told him that this place was not like yard, and the mannerisms here are different. The officer drew some conclusions from this incidence and discussed these with me. The statement is as follows:
“Any person is free here to behave the way he wants to...people can be scot free here...they can spit anywhere...because this is a government property...if you dare to spit in a private company premises...you will be immediately thrown out...see the same person behaves differently when he goes to a five start hotel or a local place...if I go to a five star hotel, it bothers me to see that the carpet is being getting spoiled because of my shoes...but if I go to a local place, I will not care for it...even we are not mentally ready to go to a clean place...at yard we ourselves keep spitting from our windows, but we do not dare to do such a thing in a five star hotel”.

In this statement, the officer mentions “the same person behaves differently when he goes to a five star hotel or a local place”. This indicates that people have different dispositions in different settings. For example, this officer was the same officer who was hegemonic with his own employee and on one occasion referred to one of his subordinates as “idiot” (in the subsection ‘Government Perspective’ in this chapter).

At another occasion, the same officer reprimanded a private partner employee in front of me. The complete discussion between the private partner employee and the government officer is presented in chapter seven under the section ‘Trust issues amongst stakeholders’ (subsection on ‘Incorrect data entry by private partners’) and it is represented here in brief.

GOVERNMENT OFFICER (TO PRIVATE PARTNER): “look who has come today. Welcome, please come, most welcome (speaks sarcastically). It is a pleasure to have you here (Sarcastically)...See yesterday I warned your site in-charge. I told him that I have opened the contract that you have signed with us, if you people do not start reporting to me properly, you will have the most ferocious opposition from me. I have been tolerating you people for a long time now”.
This officer also mentioned to me about the importance of displaying authority and at one occasion rudely ignored a farmer who wanted to know the latest commodity prices (See subsection on ‘Government perspective’ in this chapter). However, the same government officer was extremely helpful to me. He genuinely described yard problems to me and was extremely truthful in his discussions. For example, he openly accepted that he could manage to get promotion only after paying bribes and that he also accepted bribes. The fact that he was truthful can also be concluded on the basis of the range of topics that he discussed such as apathy of seniors, job history, family background and his own instances of corruption.

It was obvious that the government officer had different dispositions depending upon the situation. At a five start hotel, his disposition was different, and he was mindful of his spitting habits. In front of farmers, he could be rude or cooperative. To the private partner employees also his dispositions changed depending on the mistakes committed by the private partner. In his own personal life, his dispositions were entirely different. For example, the government officer was concerned about the future of his son, and wanted that his son should start taking his own decisions in life. He also mentioned to me that the only reason that he was not leaving the yard job was that his children were now growing. Figure 8-14, which is discussed later, presents my mind map representing the various dispositions of this officer.

This suggested to me that the government officer was a concerned father, a helpful informant, a sophisticated government officer in a five star hotel, a crude government officer spitting from his window, and a hegemonic rash senior officer using abusive language on the subordinates.

Following this observation, a couple of possibilities puzzled me. Either disposition of a stakeholder had to be a variable which will necessarily change depending on the social setting. Alternatively, none of these dispositions of the government officer were true, but
there is some situation in which the government officer shows his true dispositions. This raised a fundamental issue: Given the variability in dispositions of a stakeholder, what should be the reference point for understanding his dispositions? This question clearly presented an epistemological challenge in the understanding of true disposition.

To understand the reference point for disposition, I present the following statement of the government officer that he made in our first meeting when I introduced myself to him as a researcher. The government officer mentioned as follows:

“Suppose…I tell you the details…there are some plus points…and also there some negatives…and suppose that my head office (superiors) come to know about it…that I have told you these things…so I should not be in a problem…”

In making of this statement, the government officer clearly indicated that he wanted assurance from me that the information will not be misused against him. When I assured him, he became trustful of me. If his perceptions about me were of distrust, he would not tell me the ‘realities’. This suggested to me that, in the presence of trust, ‘realities’ are portrayed as they are. Trust thus provides a reference point for understanding true dispositions. In situations of low trust, dispositions are constructed. In the yard, this is manifested in the form of rudeness, hegemony, physical threats, aggression or verbal abuse. Notice that of the various dispositions that the government officer has, two dispositions where the government officer is helpful and concerned, are both characterised by high levels of trust.

The next question that concerned me now was: what was implicit in a situation characterised by high levels of trust? To answer this question, I again turn to the government officer’s case. Once the government officer became assured about confidentiality of the interview, he became comfortable. A sense of security must have prevailed, and so he was not using his energy to manipulate statements. He presented his innate experiences to me as they were.
Obviously, his true disposition was being revealed. The officer was frank, truthful, and cooperative. He also continued spitting from the window showing *crude* manners. This suggested to me that *trust* makes the parties comfortable and hence they are able to share their true dispositions. This follows that if interactions between two parties are marked by *discomfort*, they are also marked by *distrust*.

I have already suggested that yards are a place where the stakeholders are not physically and mentally comfortable. It should suffice to present some visuals showing the physical discomfort of focus stakeholders. Figure 8-10, 8-11 and 8-12 present some visuals showing the discomfort of farmers in yards.

![Figure 8-9: A farmer resting on commodity bags (In absence of sitting/resting facilities)](image-url)
Figure 8-10: Farmers awaiting their turn in a government office
Figure 8-11: An exhausted farmer returning from the weighing process

The pictures clearly demonstrate that the yards do not offer any basic facilities to the farmers. Such issues are detailed in the previous chapter under the section ‘Infrastructural issues’ in the yards. The situations of physical discomfort provide the first avenue for distrust, as stakeholders sense a lack of care. Furthermore, they encounter exploitative stakeholder practices such as payment delay, under reporting commodities, quality manipulations, etc. In such situations, stakeholders become aggressive, hostile, dishonest and hegemonic. Repeated experiences of exploitation give permanence to these dispositions thereby also impacting their psychological make-up. Figure 8-13 below, presents the central role of distrust in this phenomenon:
Figure 8-12: Relationship between disposition, practices and distrust
8.7 **Interactions between practices and habitus**

Building on the previous discussions, I now see the interactions between the stakeholder practices and their habitus.

In case of government officers, it seemed that the practices were closely related to their habitus. The habitus of *hegemony* explained the various practices of government officers such as ‘displays authority’, ‘threatens about confidential reports’, ‘levies penalty and cancels contracts’, ‘stops payments of the private partners’, ‘puts pressure through other government departments’ and ‘resists the presence of private partners at the check posts’. Through their *habitus* and *practices*, government officers maintained their *authority* in their *field of profession*. Both were complimenting each other. Figure 8-14 and 8-15 present my mind maps showing the habitus and strategies of the government officers.
Figure 8-13: Habitus of government officers
Figure 8-14: Strategies of government officers

- **Bureaucratic strategies**
  - displays authority
  - bears the field expenses of seniors
  - builds team of employees through transfers
  - sends notices to juniors
  - non serious ness to notices
  - threatens about confidential reports

- **Process strategies**
  - levys penalties and cancels licenses
  - resorts to clauses of PP contracts
  - overlooks entry/exit of commodities
  - stops payment of PP
  - ignores the conflict or prolongs

- **Cultural strategies**
  - consideration to socio-political status

- **Power strategies**
  - puts pressure through other departments
  - resists presence of PP at checkposts
For the private partners, it seemed as though their practices were closely related with their habitus. The habitus of the private partners included: crudeness of behaviour, carelessness in profession, helpful to me, incompetence about the IS objectives and yard processes, and disrespect towards junior employees. These dispositions reflected in their strategies such as ‘entering data without verification’, ‘deploying low quality of human resources’, ‘ignoring the contractual obligations’ and ‘providing general reports and not specific reports’. For example, carelessness explained ‘entering data without verifications’.

The private partners interacted with the government officers on a daily basis. The key habitus that characterised the government officers was hegemony. The private partners represented an organisation that is culturally different from a government organisation. Bureaucracy and sycophancy of seniors is not a part of the private partner organisational culture. The yard study reveals that the private partners were themselves becoming bureaucratic in their behaviour. I have presented two excerpts in chapter seven, in the section ‘stakeholder strategies’ that suggested such behaviour. One statements of a government officer is as follows:

“If we ask for any new kind of information or any new module, they say that the required information or module can be generated only after the approval or sanction from the Mandi board. So we do not have any authority to have the kind of information that we want”.

This suggested that the dispositions from the field of profession of government were influencing the dispositions from the field of profession of the private partners. Consequently the habitus of the government officers seems to dominate that of the private partners. This was because the government officers had the state endorsed authority. This suggests that, at the boundary of the two fields, the dynamics were favouring the powerful stakeholder group.
Instead of making the government flexible and bureaucracy free, the private partners were becoming bureaucratic. The organisational culture of the powerful stakeholder group was influencing the culture of the powerless group.

The private partners interacted with the government officers on a daily basis and observed the farmers and traders also every day. Also the farmers were perceived by the private partners as a powerful stakeholder group who used strategies such as agitations and political pressurising. At the boundary of the fields of profession of the private partners and the farmers, the habitus of the powerful group would dominate. If traders are also perceived as powerful, their habitus will dominate the habitus of the private partners. Figure 8-16 and 8-17 present my mid maps showing the habitus and strategies of the private partners.
Figure 8-15: Habitus of private partners
Figure 8-16: Strategies of private partners
The habitus of the traders also reveals a clear connectivity with their strategies. The habitus of the stakeholders included: *fearless to government authority, unhelpful attitude towards me, proactive in business, confident, respect for traditional practices, powerful, secretive and crudeness of behaviour*. Their strategies included: ‘cartel formation’, ‘advance service charge payments’, ‘physical threats’, ‘continuation with traditional business practices’, ‘under-reporting the commodities’, ‘funding of political parties’, etc. ‘Advance service charge payment’ was related to *proactivity*. *Respect for traditional practices* was reflected in the continuance of traditional business practices in trade.

Traders interacted with farmers and government officers. These three stakeholders had access to a different power. The government had a state endorsement, the traders had economic power; they were in close nexus with the industrialists, politicians and media houses. The farmers had political power through the institution of elections. Of these three powerful groups, it seems that traders seemed to be the most powerful, followed by government officers and then the farmers. This was also mentioned by a government officer as follows:

“The most influential stake holders are the traders…the traders influence the policy…they also donate the funds for the political parties…so they are quite influential…there have been some direct changes in the policies due to the influence of the traders…for instance earlier the tax was calculated on the basis of multiple entry point…this was changed to single point only because of the influence of the traders…”

The traders were the most powerful stakeholders in the yard. Not only were they powerful because of their political connections but they were also powerful because they were well informed. They were in control of the *information capital*. The following statement of a farmer establishes this:
“See a trader is a kind of person who will give you true information…he knows everything because he is well informed and has good connections…”

Given that the traders are the most powerful stakeholder group, based on the previous arguments, then their *habitus* will have an influence of the *habitus* of other stakeholders. The farmers were *resigned* to changing their *crudeness* because they perceived the traders to be *crude*. The habitus of traders includes ‘Crudeness’ as a dispositional attribute. By appearing to be *crude*, the farmers perceived themselves to be at the same power level as traders. This reduced their sense of exploitation. Figures 8-18 and 8-19 below present the habitus of the traders and their strategies.
Figure 8-17: Habitus of traders
Chapter 8 – Discussion

Figure 8-18: Strategies of traders

- **political strategies**
  - funds political parties
  - political pressurising
- **business strategies**
  - forms cartels
  - advances service charge payments
  - mixes the commodities
- **process strategies**
  - unregistered transactions
  - payment delay
  - weight manipulations
  - record manipulations
  - bribes and corruption
  - retains bags of farmers
  - smuggles commodity to other states
  - standardises bags
- **power strategies**
  - physical threats
  - uses yard infrastructure for personnel benefits
- **cultural strategies**
  - traditional business processes
For the farmers, it seemed as though their habitus was not connected with their practices. My observations of the farmers indicated that their habitus can be described as: careful about personal health, helpful to me, generous to close relatives, patient at the yard and crudeness of manners. Some of their strategies included ‘quality manipulations’, ‘multiple contracts’, ‘physical threats and breaking the queue’, ‘agitations and blaming the government officers’, and ‘political pressuring’. Quality manipulations by the farmers or signing multiple contracts were clearly disjointed with patience, generosity or crudeness of manners. This suggested that their practices could not be explained by their habitus.

Also, both quality manipulations and signing multiple contracts were used when their ‘agricultural’ field of profession came in contact with the ‘governance’ field of profession or ‘trading’ field of profession. Traders already have leverage in negotiations because a farmer cannot return without selling the commodity. Similarly, government officers have leverage because of the state endowed authority. On the other hand, farmers have an urgent requirement of cash. Furthermore, the context in the village is exploitative, and there is an inherent fear of exploitation. Fearful of this, they improvise their practices at the boundaries of the fields. In other words, within their fields they may not manipulate the quality of commodities. A farmer obviously does not adulterate the commodity that will be consumed by his family. The basis for this improvisation was their perception about the practices of other stakeholders. If traders were fraudulent, so were the farmers. Such practices provided an opportunity to the farmers to not only reap economic benefits, but more importantly it makes them feel that they were not the only ones who were exploited. This saves them from an acute sense of exploitation. It brings them psychological wellbeing. A farmer who bluffed the trader was more likely to have a peaceful sleep than a farmer who was bluffed by him. 

Quality manipulation is a symbolic response to their exploitation.
Farmers do not come to the yard every day, but at the most twice or thrice a year. Thus, their practices in the yard are disjointed from their dispositions in the village. Of course, they are also exploited in their own villages, but again this exploitation is largely from the government officers and the traders. This further escalates their negative perception about them. Figure 8-20 and 8-21 below present my mind maps of the habitus and strategies of farmers.
Patience can be the first stage of resignation.

Figure 8-19: Habitus of the farmers
Figure 8-20: Strategies of farmers
The preceding discussion also suggests that at the boundaries of practices, habitus of the powerful stakeholders interacts with those of the powerless stakeholders. Consequently, the transformations of habitus take place. The powerless stakeholders tend to acquire the habitus of the powerful stakeholders. In the case of the yards farmers acquire, the habitus of the government officers and traders as both are at a higher power level. The government officers acquire the habitus of the traders who are at the top of power hierarchy. Consequently they strive to appear more like traders. However, to be like the traders, they should have monetary resources. This makes them corrupt in the yard. The private partners are at a lower level of power compared to the government officers. They acquire the habitus of the government officers and become more rigid and bureaucratic. This adversely affects their role in the yard. Instead of relieving the yard from bureaucracy, they become a part of it.

Within each stakeholder group, this process of acquiring the habitus of the powerful group continues unabated. The officers at lower levels in the organisational hierarchy observe that their seniors are hegemonic. Consequently, they become hegemonic to their juniors. Their seniors do not care about their problems and so they become apathetic to their juniors. This relieves them from a sense of exploitation. The private partner junior employees observe that their seniors are ignoring the contractual obligations. Consequently, they become less careful about the data that they enter. The traders – though informally organised – observe that the large industry houses do not report their trade transactions and do unregistered deals and so they start under-reporting their commodities.

This process of acquiring the habitus of the powerful stakeholder group is a process of social transformation. Such transformation will happen irrespective of the role of information technology.
However, Information Systems can influence this process through the *habitus* and *practices* that demarcate the information systems profession from other professions. In the case of yards, the private partners were implementing information systems. However, there was nothing unique about their *practices*. They were, in fact, projecting themselves as *subcontractors* rather than *information systems professionals*. This resulted in trust loss for the private partners. The following statement of the government officer will show that they were perceived as subcontractors and not *information systems professionals*. The full statement has been presented under section on private partner strategies, and a part is reproduced below:

“…the government contracted this work to one company…this company contracted work to another company…which also sub contracted it further. So that is what has happened and a contractor in India usually has a tendency to minimise the expenditure, maximising the profit and there is no care for work quality”.

This indicated that the *habitus and practices* of the implementers of the *information systems* i.e., the solution providers should be different from the occupants in the problem domain.

I now discuss some solutions to resolve the trust-resignation issues in the yard.

### 8.8 Proposed solutions

I will now proceed to propose various solutions to the problem I have identified. These solutions are intended to address the issues of *mistrust* and *resignation*.

Farmers travel long distances to the yard. They travel to the yard with their commodities and it is logistically infeasible for them to return without selling the commodity. This makes the farmers vulnerable. Also, it yields high cumulative costs. For example in one of the yards that I visited there are about two thousand registered traders. On the other hand, there are thousands of farmers residing in the nearby villages that approach this yard with their
commodity. Cumulatively the cost associated with the travel of farmers is much more than the costs associated with the travelling of two thousand traders to the farms of farmers. Moreover, in the usual business environment, the buyers approach the sellers and not the vice-versa. The farmers are vulnerable as they cannot return with the trucks of their commodity. It thus follows that if farmers need to be emancipated from their vulnerability, they should not be required to travel with their commodity, and if possible they should not be required to travel at all. This suggests that the commodity that needs to be traded will need to be separated from the actual trade transaction. By this, I mean that there should be some system by which the farmers are not required to transport their commodity at the time of trade. This can be done by involving two types of technological systems. Firstly, by use of grading systems that can grade the commodity at the farmer’s farm. Second, by use of information systems that can convey the commodity information to the trader. Together these two can be called as the commodity information systems (CIS). This CIS can relieve the farmer of travelling to the yard with the commodity. The farmer can have some power over the negotiations, and this will reduce his vulnerability.

Farmers approach the yard with an objective of selling their commodities. Traders approach the yards with an objective of purchasing these commodities and then selling these forward for an incentive. Both parties transact with each other and have an experience of the transaction. For example, the trader may experience that the quality of commodity of the farmer was excellent or that the quality was extremely poor. The farmer may experience that the trader was prompt in the payment or that the trader was too sluggish. In either case, both parties have an experience.

In the current system, this experience is shared within extremely limited circle of personal relationships of the farmers or traders. A farmer may share this experience only with the other farmers of his village and the trader may share it with his subordinates or other traders in
vicinity. Currently this experience with a transaction is not brought in the public domain.

The result is that the farmers have no idea about the experience of other farmers in dealing with a trader. Neither a trader is aware about the past reputation of a farmer. This creates a situation whereby the parties in the transaction are anonymous to each other in a trade transaction. Such anonymity provides an incentive for fraudulent behaviour. It is therefore, important that each party shares its experience of the transaction with another party and that this experience is brought in the public domain. This could be done through publicly available feedback mechanisms. The task of an information system could be to publish this feedback in the public domain so that it can be viewed by all the other stakeholders.

Such feedback may not be limited to the farmer-trader combination. Framers may also provide their feedback about the government officers conducting auctions and the labourers. Similarly the private partners may provide their periodic feedback about the experience of working with the government officers/team and vice versa.

The choice of the public domain where information on the transaction experience is shared will be an issue of critical importance here. For example if the information is shared on a website in English language, it may not serve its purpose. However, if the same information is shared over mobile telephones in the local language, it will be readily used by the farmers. In that case dedicated, mobile applications will need to be developed through which such information can be shared.

Government officers, especially the junior officers are resigned to the dictates of the senior officers because decisions about their organisational growth are made by their seniors. This results in a restriction on free and fair communication between the juniors and seniors. For example, juniors are fearful in suggesting to the seniors that variations in yard processes do not support the use of single software across the different yards. Threats of senior officers, force the juniors to support decisions taken by the seniors, even when such decisions are
detrimental to yard functioning. The current employee appraisal systems are one-way systems – from seniors to juniors. Clearly, there should be some mechanism to ensure a free and frank communication between the juniors and seniors. Table 8-11 below presents some excerpts that indicate the lack of free and frank communication between the seniors and their subordinates.

| “Our condition is such that we are not even given an opportunity for providing explanations”. |
| “The senior officers in the board are least interested in solving the real problems. They do not want to come here and see the practical problems.” |
| “...I am almost going to complete about one and a half year in this yard. During this duration if any of my seniors would have analysed my data or my work, given me some feedback, then I would have been very happy. But none of them have ever done that...” |

**Table 8-11: Excerpts indicating communication restraint between senior and junior staff**

This suggests that the employee appraisal systems should be such that the experiences of juniors, working under a group of seniors, should have an impact on the organisational growth of seniors and vice versa. In order to address the resignation issues within an organisation, employee growth in an organisation will need to be linked with the perceptions that the juniors/seniors have about each other. Feedback mechanism will not only relate to the dyad of farmer/trader or government officer/private partners, these can be extended within organisational-team comprising of juniors/seniors. Obviously, if senior officers’ organisational growth is directly linked to the feedback of juniors, there will also be an impact on their hegemonic attitude, and this will have an impact on the resignation of the junior officers. Information systems can contribute here by developing appraisal systems that are based on peer or subordinate feedback.

Stakeholders are susceptible to resignation when there are threats to their physical security.
In the case of yards, we have seen that nearly all the stakeholders have threats of physical security. In the absence of physical security, stakeholders are likely to succumb to the exploitative tendencies of other stakeholders. Information systems can play a role here by ensuring that each and every entrant to the yard is documented.

I had earlier mentioned in the case description that yards are usually located in the downtown/central city areas. The yards are used as traversing paths and shortcuts connecting different ends of the city. Thus, anyone and everyone can enter the yards. Consequently, the security guards at the yards often cannot differentiate between those who enter the yard for trade purposes and those who do not. Such situations make yards vulnerable to security problems.

The task of information system is to ensure that each entrant to the yard is documented, and only the yard beneficiaries are allowed to enter the yards. For resolving the trust-resignation issues, stakeholder accreditation system should be integral part of yard functioning.

The preceding discussion identifies the key areas of intervention to reduce the resignation issues in implementation agricultural marketing information systems. These include commodity information systems, stakeholder feedback systems, stakeholder accreditation systems and stakeholder security systems. Figure 8-22 below presents the role of information systems in the mistrust-resignation framework. In summary, I suggest that these four constructs should be an integral part of agricultural marketing information systems in order to address the issues of resignation.
Figure 8-21: Potential Role of IS
I started the research with the objective of finding answers to the research question: what are the major issues in the implementation of agricultural marketing information systems? My findings suggest mistrust and resignation together present a major challenge to successful IS implementation in developing countries. As a solution, I suggest four essential constituents of information systems namely: commodity information systems, stakeholder feedback systems, stakeholder accreditation systems and stakeholder security systems.
CHAPTER 9 – CONCLUSION

“When the monsoon fails to blow, India starves, and dreams of Nirvana.”

Will Durant (1935, p. 394)

9.1 Chapter outline

I started this research with the objective of understanding the major issues in the implementation of agricultural marketing information systems in developing countries. I collected the data for this through interviews, observations and field visits. I looked at my data critically, and my key findings are that the mistrust-resignation nexus presents a major challenge to information systems implementation in developing countries. I have suggested that dishonest practices and hegemonic attitude are two principal sources for mistrust-resignation. Both of these are rooted in the power asymmetries in the social system. As a solution, I suggest that commodity information systems, stakeholder feedback systems, stakeholder accreditation systems and stakeholder security systems should be an integral part of agricultural marketing information systems. In this chapter, I summarise my findings, relate my findings to the works of past researchers, suggest recommendations and highlight the limitations of this research.

9.2 Research findings

Using the practice-habitus framework of Bourdieu (Bourdieu, 1977) my research suggests that power asymmetries at the boundaries of practices force the suppressed stakeholders to imitate habitus and practices of those in power. For example, in the yard hegemonic and dishonest practices of powerful traders and government officers are imitated by the farmers. Such an imitation provides them a temporary relief from a deep feeling of exploitation but
fails to emancipate them truly. Consequently the powerless stakeholders become resigned to the hopelessness of the situation. Resignation makes them vulnerable for further exploitation. An exploitative context acerbates the situation, and the entire system is jeopardised.

I suggest both micro and macro level interventions. At the micro level of implementation, I have suggested that four types of systems need to be an integral part of information systems implementation. These include a commodity information system, stakeholder feedback system, stakeholder accreditation system and stakeholder security system. At a macro level, I suggest that efforts for social transformation in developing countries will need to be directed at the top of the pyramid. This is because, practices of those in power percolate down to the lowest level of social strata.

9.3 Relevance to past research

In this research, I have suggested that powerless stakeholders imitate the practices of the powerful stakeholders. This finding is in line with the conclusions of Bourdieu that the habitus of the powerful elite has a social sanction and is often considered as the only “proper sort of habitus” (Harker, 1990 p. 87).

Bourdieu suggests an interrelationship between practices and habitus and their cyclical relationship with the social structure in the form of “circuit of reproduction” (Schultze & Boland Jr, 2000 p. 203). The yard study clearly suggests a relationship between the stakeholder practices and their habitus. The government officers’ habitus is characterised by hegemony which is reflected in their use of authority. Traders’ habitus suggests proactivity in business, crudeness of behaviour, secretive and fearlessness from government officers. These were reflected in their advance service charge payment, using traditional trade practices for submitting trade records, using the yard infrastructure for personal benefits fearlessly and forming trader cartels. The private partner’s habitus suggested carelessness, incompetence,
crudeness and disrespect for the juniors. These were reflected in their practices such as carelessness about the fulfilment of contractual clauses and generating false reports. The farmers’ *habitus* is marked by patience, and this was reflected in their patient submission to the whims of labourers. The findings of the yard study clearly conform to the past studies that present the interrelationship between *habitus, practices* and *social structures* (for example see Schultze & Boland Jr, 2000).

Furthermore, the “circuit of reproduction” is evident in yards as the fraudulent practices of stakeholders eventually led to the abandonment of the project. Even at the micro level the “circuit of reproduction” became manifested in the form of conflicts between the stakeholders. For example, the commission agents charged exorbitant commissions from the farmers. This forced the farmers to use the practice of agitation, following which the government took an initiative to ban commissions in fruits and vegetables. The exploitative practices of commission agents and traders forced the government to implement the information systems. This forced the traders to submit their trade records as per a schedule. This contradicted their trade practices, and they resisted it. This impacted the IS implementation negatively. This suggests that the Theory of Practice of Bourdieu helps to explain the results of the study. I have suggested that power asymmetries at the *boundaries of practices* result in trust loss amongst the stakeholders. Previous information systems studies have similarly suggested that asymmetries in work practices result in mistrust (Moe & Smite, 2008).

My findings suggest that mistrust results from dishonest practices and hegemonic attitude of stakeholders. Hegemony, aggression, security threats and verbal abuse are a common phenomenon in the yard. This has a direct impact on the trust levels of stakeholders. Past IS studies have suggested that dispositional factors play a crucial role in the early stages of trust formation (Wang & Benbasat, 2008), and studies from psychology suggest that *respect* plays
a vital role in trust formation (Simons & Peterson, 2000). Fear is found to be directly related to mistrust (Insko et al., 2005) and increased monitoring and behavioural control results in mistrust (Mayer, et al., 1995; Schoorman et al., 2007). Furthermore, information systems researchers have also suggested that lack of fiduciary responsibilities by those in power results, in mistrust (Baba, 1999). Literature on trust recognises that trust is a multidimensional construct with cognitive and affective elements (Kanawattanachai & Yoo, 2002; Parra et al., 2011; Schoorman et al., 2007; Sztompka, 1999). Ability, benevolence and moral integrity are the three antecedents of trust (Mayer et al., 1995) and my findings clearly relate to these as I have demonstrated that honesty, efficiency, sincerity were missing among the stakeholders.

I have suggested that low levels of trust and helplessness result in the resignation of stakeholders. Arneson (Arneson, 1982 pp 622-623) has discussed the resignation issue by presenting two types of co-operators namely nervous co-operators and reluctant co-operators. Nervous co-operators are those who are willing to cooperate provide that enough number of others also cooperate. Reluctant co-operators, on the other hand, are willing to cooperate provided that all others are also willing to cooperate. According to Yamagishi, et al. (2005) lack of reciprocation results in nervous or reluctant co-operators. In yards stakeholders repeatedly encounter fraudulent practices. They do not foresee any reciprocation of their trustful behaviour and hence improvise their practices to suit defection. Past studies have also suggested that mistrust becomes a chosen strategy of stakeholders when there is an expectation of selfish behaviour from other stakeholders (Baba, 1999).

I have suggested a vicious cycle between mistrust and exploitation. The study by Yamagishi et al., (1999) suggests that in uncertain situations, people with high trust are much more proactive and cautious to untrustworthy behaviour than people with low trust (1999 p. 150). The case of the yard is characterised by people with low trust and agriculture is an occupation
that is full of uncertainty. This presents a paradox: while uncertain situations demand trust for successful cooperation, low trusting people, become less vigilant in such situations. This lack of vigilance makes them vulnerable to further exploitation, eventually leading to their resignation.

I have indicated the role of context in shaping trust amongst the farmers. I have argued that farmers are the central stakeholders in the yards and that the context of farmers is characterised by uncertainty and exploitation. Altruism studies in psychology demonstrate that humans have a natural disposition for altruism (Warneken & Tomasello, 2009). If humans have a natural disposition to be altruistic, then it must be through the process of socialisation that they learn to be selfish. This process of socialisation is indicative of the role of context.

I have presented various types of practices used by the stakeholders. Past researchers have studied agricultural marketing issues in developing countries (such as Vietnam, Tanzania, Philippines, Dar-es-Salam, Taiwan, Nepal, Uganda, Nigeria, etc.) and have identified similar practices (for example see Batt & Rexha, 1999; Chengappa, 2003; Liu, 2002; Batt, 2004; Kydd & Dorward, 2004; Tollens, 2006; Pokhrel & Thapa, 2007; Molony, 2008; Muto & Yamano, 2009). This also indicates that my findings are generalizable to other developing countries apart from India.

9.4 Contributions of the study

The study makes pragmatic and theoretical contributions. First, the study presents a description of the practices used by various stakeholders in agricultural marketing information systems implementation. Some of these practices are specific to agricultural marketing, while some are generalizable to other disciplines. This research documents the stakeholder practices and brings this knowledge in the public domain. Researchers and IS
designers focusing on developing countries will gain a greater understanding of the realities of IS implementation.

Second, the study provides the first building blocks for developing a framework for studying stakeholder practices. I have made a classification of practices on the basis of resources, processes, power status, political status, information access and socio-cultural make up. This classification can help the researchers to develop frameworks for studying stakeholder practices.

Third, on matters of practices the study suggests that in developing countries practice based transformations are equally essential at the top as at the bottom of the pyramid. A thorough overhaul of the system is needed. Such transformations are essential for success of information systems projects. Thus, the study highlights the importance of studying the practices of the powerful groups, as well as of the powerless groups.

Fourth, the study highlights that hegemonic attitude and dishonesty are two constructs that are related to distrust. While the latter may not be manifested during field studies, the former is clearly a manifested construct. One cannot remain inexpressive and yet be hegemonic. This suggests that hegemony provides a framework for researchers to understand distrust issues.

Fifth, the study makes contribution to the theory of trust formation by highlighting the importance of dispositional factors in trust formation. The study suggests that stakeholder dispositions – such as hegemony – have a direct impact on trust. Thus, dispositions are a matter of grave importance in the successful implementation of information systems. Such dispositions are conveyed not only by attitudes and behaviour of individuals, but more importantly also through the organisational dispositions. Yards lack basic infrastructure and cleanliness. This provides the first avenue for distrust. Trust formation thus includes dispositional factors as much as it includes affective, cognitive or normative factors.
I have also suggested in chapter eight under the subsection on ‘importance of trust’ that trust provides valuable reference point for understanding the *habitus* of the stakeholders. In high trust situations, stakeholders are likely to be more comfortable and hence *habitus* requires no manipulations. This suggests that high trust systems are likely to be highly stable systems. This conclusion suggests that trust is also directly related to the stability of social systems.

To present the summary of the key contributions of this research, I revisit this study in the background of principles of critical study enunciated by Myers and Klein (2011). Table 9-1 below presents how this study relates to these principles.
<table>
<thead>
<tr>
<th>Principle</th>
<th>How the principle is addressed in my research</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Principle of using core concepts from critical social theorists</td>
<td>I have used the theory of practice of Bourdieu (1977) to understand and explain my results. Use of dishonest practices by stakeholders results in loss of trust. The habitus of the powerful stakeholders is imitated by the powerless as doing so provides a temporary relief from a deep sense of exploitation. However, this is only a temporary relief. Continued use of unfair practices and the helplessness of the powerless result in their resignation. Such a fatalistic resignation makes the powerless vulnerable to further exploitation</td>
</tr>
<tr>
<td>The Principle of taking a value position</td>
<td>I have used fairness as a criterion to judge the stakeholders behaviour. I have taken a value position of not defending the behaviour of either the powerful or the powerless.</td>
</tr>
<tr>
<td>The Principle of Revealing and Challenging Prevailing Beliefs and Social Practices</td>
<td>I have revealed the unfair and corrupt practices of all stakeholders. But as an Indian myself I do not accept that the yards have to stay this way. I have suggested that in developing countries transformations are needed at the top of the pyramid as much as they are needed at the bottom. This challenges the conventional developmental paradigm which is obsessed with socio-economic transformations at the bottom of the pyramid.</td>
</tr>
<tr>
<td>The Principle of Individual Emancipation</td>
<td>I have suggested that commodity information systems, accreditation systems, feedback systems and security systems as possible solutions from mistrust-resignation. Implementation of these is directly related to the emancipation of the stakeholders. Commodity information systems will emancipate the farmers and integrate the traders with their business context. Accreditation, feedback and security systems will emancipate all the stakeholders including the bureaucracy-ridden government officers. This research has also led me to take a value stance against hegemony and dishonesty.</td>
</tr>
<tr>
<td>The Principle of Improvements in Society</td>
<td>This principle suggests that researcher should make an effort to make the society aware of the problems identified in the research. I have made an effort to keep this research as pragmatic as possible. Also I presented the findings of the study in leading conferences in the area of ICT4D. I have discussed my results with the informants and have tried to make them aware of the issues found in the research.</td>
</tr>
<tr>
<td>The Principle of Improvements in Social Theories</td>
<td>I have suggested that practices of powerful stakeholders are imitated by the powerless stakeholders. However, there may be cultural determinants of stakeholder practices and habitus. This area needs further exploration. The effect of culture needs to be recognised in understanding stakeholder habitus and practices. In other words, it is possible that resignation may be imbedded in Indian culture.</td>
</tr>
</tbody>
</table>

Table 9-1: Research outcomes revisited on basis of Myers and Klein, (2011)
9.5 Recommendations for further research

I have argued that stakeholder practices have an impact on trust and resignation of stakeholders. However, there may be cultural determinants of both. For example, the use of ‘patience’ by farmers in the yard may be an outcome of the inherent cultural influences. The role of culture becomes particularly important as past studies suggest that culture is clearly linked with IS implementation (Walsham & Sahay, 1999). Further exploration is also required to understand the role of culture in resignation of stakeholders. Past studies indicate that strong commitment relations with a chosen few have a negative impact on an individual’s propensity to trust (Yosano & Hayashi, 2005). Given that developing countries are marked by very strong commitment relations within clan, family, tribe or caste, it is likely that cultural factors may have an impact on the resignation of stakeholders.

I have mentioned earlier that trust provides a reference point for understanding the true dispositions of stakeholders. This issue needs further probing. I have argued that high levels of trust give assurance to stakeholders and hence they become more comfortable. This relieves them from the efforts to manipulate their socio-psychological makeup, and hence true dispositions of stakeholders become manifested. The process of interviewing may make a farmer uncomfortable as he may need to recollect his miseries for the researcher. This discomfort will not let him present his true dispositions and opinions. He may thus exaggerate or underplay the issue being discussed. Given that the researcher is most likely to come from a different social class, such exaggerations may become much more pronounced. The fact that farmers do have a tendency to exaggerate is obtained from Batt (2004) who suggests that farmers have a tendency to exaggerate the prices at which they sell the commodities. A framework is required to understand and control these exaggerations as they may not present the true pictures of the social realities.
9.6 Limitations and conclusion

The practices that I have discussed in the study are limited to agricultural marketing information systems. For example, during the implementation of health information systems in developing countries, different practices may emerge. Thus, the findings from the study might not be generalizable to other types of systems. However, the classification of stakeholder practices is the first of its kind, as past studies have only presented resource control as the basis of stakeholder strategies (Frooman, 1999; Frooman & Murrell, 2005).

Another limitation of the study is its India-specific nature. For example, the term ‘agriculture’ in India, which is predominantly a vegetarian country, is limited to fruit, vegetables, grains, etc. Animal food, its procurement and logistical issues are not discussed in this study. However, given the similarity of problems and issues in developing countries, I believe that findings of this study will be applicable in developing countries.

In conclusion, I started the research with an objective of understanding the major issues that have an impact on the successful implementation of information systems projects. After eight months of field visit and the subsequent analysis of data, I have an answer with me. Mistrust and resignation are the major issues. Stakeholders will need not only to be more trusting, but they need mechanisms which enable trust. As an Indian myself, I do not accept that the lack of fairness and exploitation that is currently happening in the yards has to continue. I sincerely believe that things can be changed for better. Hence I have suggested that commodity information systems, stakeholder feedback systems, stakeholder accreditation systems and stakeholder security systems might be useful mechanisms for enabling trust.
APPENDIX 1: ETHICS APPROVAL (UNIVERSITY OF AUCKLAND)

14 November, 2008

MEMORANDUM TO:

Ranjan Vaidya
Information Systems & Operations Management

Re: Change to application

I wish to advise you that the Committee met on 12 November, 2008 and reviewed the request for change to your application titled "What are the major issues in implementing a farmers’ market information system in Madhya Pradesh, India?" (Our Ref. 2008 / 414).

The Committee approved the change.

If the project changes significantly you are required to resubmit your application to the Committee for further consideration.

In order that an up-to-date record can be maintained, it would be appreciated if you could notify the Committee once your project is completed.

Please contact the Chairperson if you have any specific queries relating to your application. The Chair and the members of the Committee would be most happy to discuss general matters relating to ethics provisions if you wish to do so.

Lana Lon
Executive Secretary
University of Auckland Human Participants Ethics Committee

c.c. Head of Department / School, Information Systems & Operations Management

Ranjan Vaidya
Dept. of Information Systems & Ops Mgmt
University of Auckland

23 APR 2009
FOR INTERNAL PURPOSES ONLY
APPENDIX 2: CCM FOR ALL STAKEHOLDERS

FARMER INTERVIEWS (SUMMARY AND CODES)

<table>
<thead>
<tr>
<th>Interview</th>
<th>Summary</th>
<th>Main Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Farmers and traders are both deceptive. Farmers do quality manipulations while traders form cartels. The context of farmers is marked by uncertainty and exploitation and farmers are severely caught in commodity rate fluctuations and vicious cycle of interest rates.</td>
<td>Farmers and traders are both deceptive. Farmers do quality manipulations while traders form cartels. The context of farmers is marked by uncertainty and exploitation and farmers are severely caught in commodity rate fluctuations and vicious cycle of interest rates. Farmers are not provided correct information, farmers are not trusted because they do quality manipulations, farmer's reasons for quality manipulations, stocking is important for profit making in agriculture, theft is common in villages, traders are dishonest, traders form cartels, traders have business acumen, urgent cash needs force farmers to go to the yards.</td>
</tr>
<tr>
<td>2</td>
<td>Unregistered deals are common between the farmers and traders.</td>
<td>Unregistered deals are common between farmers and industries, social respect is village is measured by land ownership, key information requirement of large farmers is about the production of commodities in other areas.</td>
</tr>
<tr>
<td>3</td>
<td>Yards are full of problems and there are no basic facilities in the yards. Everyone in the yard exploits the farmers. The traders make late payments and the labours exercise hegemony.</td>
<td>Farmers face lots of problem in yards, labours do hegemony in yards over the farmers, late payment is a major problem in the yards, selling in yards a compulsion for the farmers, there are no basic facilities in the yards, traders and labours join together to exploit the farmers, traders under weigh the farmer commodities</td>
</tr>
<tr>
<td>4</td>
<td>Commission agents and traders have historically exploited the farmers. Yards are prone to corruption. There is no cleanliness in the yards. Agriculture is a labour intensive activity.</td>
<td>Commission agents and traders have historically exploited the farmers. Yards are prone to corruption. There is no cleanliness in the yards. Agriculture is a labour intensive activity.</td>
</tr>
<tr>
<td>5</td>
<td>Agriculture is a physically strenuous activity, yet the rewards of agriculture are not certain. Agriculture does not bring security in the life of farmers.</td>
<td>Agriculture is a physically strenuous activity, yet the rewards of agriculture are not certain. Agriculture does not bring security in the life of farmers.</td>
</tr>
<tr>
<td>6</td>
<td>Farmers face a lot of difficulty in reaching the</td>
<td>Approaching yards is a strenuous activity.</td>
</tr>
<tr>
<td>7</td>
<td>Farmers are exploited by traders and labours. Agriculture is a demanding activity and yet the rewards are not assured. The processes in the yard are not transparent and are dominated by traders.</td>
<td>Traders are dishonest, agriculture is an unplanned activity in India for the farmers, traders do not return commodity bags, it is more profitable for farmers to sell their land than doing agriculture on it, farmers are exploited everywhere</td>
</tr>
</tbody>
</table>
**FARMER INTERVIEW SUMMARY COMPARISON**

Farmers perceive both farmers and traders as deceptive. Farmers do quality manipulations while traders form cartels. Unregistered deals are common between the farmers and traders. Yards are prone to corruption.

The context of farmers is marked by uncertainty and exploitation and farmers are severely caught in commodity rate fluctuations and vicious cycle of interest rates.

Everyone in the yard exploits the farmers. The traders make late payments and the labours exercise hegemony. Commission agents and traders have historically exploited the farmers. Farmers are exploited by traders and labours. The processes in the yard are not transparent and are dominated by traders. The context of farmers is marked by exploitation and farmers are severely caught in commodity rate fluctuations and vicious cycle of interest rates.

Agriculture is a labour intensive activity. Agriculture is a physically strenuous activity, yet the rewards of agriculture are not certain. Agriculture does not bring security in the life of farmers. Farmers face a lot of difficulty in reaching the yards. It is strenuous for them to reach to the yards. Agriculture is a demanding activity and yet the rewards are not assured.

Yards are full of problems and there are no basic facilities in the yards. There is no cleanliness in the yards.
Agriculture is an uncertain occupation i.e., where the rewards of one’s efforts are not guaranteed.

Yards lack basic infrastructure.

Lack of care.

Uncertainty and exploitation shapes the behavior of farmers and farmers are not willing to take a “trust initiative” on other stakeholders (traders and government officers).

Farmers have a high sense of exploitation by nearly all segments of society (particularly government and traders).
**GOVERNMENT OFFICER INTERVIEWS (SUMMARY AND CODES)**

<table>
<thead>
<tr>
<th>Interview</th>
<th>Summary</th>
<th>Main Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Farmers lack awareness about agricultural marketing, agricultural practices, yard rules and regulations. Visiting yards is a stressful experience for the farmers. Commission agents (and traders) play a dominant role in the yards and sometimes they do not provide fair prices to the farmers. Officers on deputation may not be knowledgeable about yard processes. Deputed officers who have a will work very efficiently in the yards. Private partners are not discharging their responsibilities properly and they do not understand the yard issues properly.</td>
<td>Officers on deputation are not knowledgeable about yard issues, private partners do not discharge their responsibilities properly, private partners have not understood the yard issues properly, approaching the yards is stressful for the farmers, commission agents and traders do not give fair price to the farmers,</td>
</tr>
<tr>
<td>2</td>
<td>Private partners do not display ability, sincerity, integrity and honesty.</td>
<td>Computerisation is in evitable, farmers do not respect their auction contracts, implementing officers are not involved in policy making and design, private partners are not responsible, sincere, honest and do not show integrity. There is a mismatch between the information generated from software and that which is required, general description of yards, farmers do not respect their auction contracts.</td>
</tr>
<tr>
<td>3</td>
<td>Yard employees work in a strenuous environment marked by frequent quality conflicts between farmers and traders. Yard rules are not implementable.</td>
<td>Farmers resort to agitations in yard. Quality conflicts are frequent between farmers and traders, yard employees work in highly strenuous environment, yard rules are not implementable.</td>
</tr>
<tr>
<td>4</td>
<td>Yard employees are overburdened with work and face various kinds of problems (political, organisational, management, financial, security, etc.) but senior officers are hardly concerned about their problems. The field level implementers are not involved in policy board does not cares for yard employees, deputation of senior officers is a major problem in the yards, implementers are not involved in planning and policy design, senior officers are hegemonic, senior officers do not care about the junior officers, yards are conduit for corruption, yards are meant to help farmers, yards are overburdened with arrivals, yards are prone to</td>
<td></td>
</tr>
</tbody>
</table>

304
design. Most of the senior officers are on deputation and hence they are not concerned with resolving yard issues. Lack of care and concern marks Indian society and government offices. The private partners are not efficient, sincere and honest. Farmers, traders, private partners and government officers all lack sincerity and honesty. The private partners lack efficiency and one reason is that they are not paid well.

political interventions, yards are prone to problems of government offices in India, yards are severely financially constrained, yards face problems of manpower, yards rules are not implementable, yards to not have financial autonomy to spend their collections.

STAKEHOLDERS ARE NOT HONEST AND SINCERE. farmers do not respect their auction contracts, traders form cartels in yards, farmers do quality manipulations and are hegemonic sometimes, traders manipulate their trade transactions, private partners are not efficient because they are paid less, private partners are not fulfilling their commitments, private partners do not work efficiently, private partners do not work with honesty and sincerity, labours and weight certificatory are not interested in small farmers. Commission agents and traders form nexus to exploit farmers, commission agents have a long history in yards, intermediaries have a long history in the yards

GENERAL DESCRIPTION OF YARDS. Description of employment history of the employee, description of yard history, description of unions in yards, description of yard committee and mandi board, description of yard man power, description of yard processes.

CHARACTERSTCS OF CONTEXT OR INDIAN SOCIETY
lack of care and concern marks Indian society, family obligations bind GO to take career decisions, there are variations in yard processes across the yards and hence single Act is not feasible, various types of commodities are traded in yards, there has been a change in overall philosophy of yards - from helping farmers to making money. Government officers are inclined to be hegemonic.

5 Farmers have a deep sense of exploitation. They are exploited by everyone and the government provides no help to them.

agriculture is not a profitable occupation, commission agents have a long history in yards, commission agents help farmers in their needs, employment history, farmers have a deep sense of exploitation, political intervention has an old history in yards, visiting yards is a strenuous experience for the farmers, yards are conduit of corruption, yards lack basic facilities for the farmers

6 Every yard has its own set of procedures and processes that are too complicated and difficult for computerisation.

Description of yards, employment history, farmers are involved in quality manipulations, variations in yard processes, yards processes are too complicated
<table>
<thead>
<tr>
<th>7</th>
<th>Working in the yards is full of pressure. Farmers are involved in quality manipulations and agitations</th>
<th>Farmers are involved in quality manipulations, farmers resort to agitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Traders have a long history of commissioning and are hegemonic. Farmers are exploited everywhere.</td>
<td>History of employment in the yards, description of commissioning in the yards, yard processes such as requirement of tax paid certificate in other yards,</td>
</tr>
</tbody>
</table>
**GOVERNMENT OFFICER INTERVIEW SUMMARY COMPARISON**

<table>
<thead>
<tr>
<th>Private partners are not discharging their responsibilities properly and they do not understand the yard issues properly. Private partners do not display ability, sincerity, integrity and honesty. The private partners lack efficiency and one reason is that they are not paid well.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yard employees work in a strenuous environment marked by frequent quality conflicts between farmers and traders. Yard employees are overburdened with work and face various kinds of problems (political, organisational, management, financial, security, etc.) but senior officers are hardly concerned about their problems. Most of the senior officers are on deputation and hence they are not concerned with resolving yard issues. Officers on deputation may not be knowledgeable about yard processes.</td>
</tr>
<tr>
<td>Every yard has its own set of procedures and processes that are too complicated. The field level implementers are not involved in policy design. Yard rules are not implementable.</td>
</tr>
<tr>
<td>Farmers lack awareness about agricultural marketing, agricultural practices, yard rules and regulations. Farmers have a deep sense of exploitation. They are exploited by everyone and the government provides no help to them. Visiting yards is a stressful experience for the farmers. Commission agents (and traders) play a dominant role in the yards and sometimes they do not provide fair prices to the farmers.</td>
</tr>
<tr>
<td>Lack of care and concern marks Indian society and government offices. Farmers, traders, private partners and government officers all lack sincerity and honesty.</td>
</tr>
</tbody>
</table>
THEMATIC MAP FOR GOVERNMENT OFFICERS

Every yard has its own set of procedures and processes that are complicated.

Most of the senior officers are on deputation and are not fully aware about the intricacies of yards.

Officers on deputation serve a temporary term in yards and are not sincere for resolving yard problems.

Yard rules are not implementable.

The field level implementers are not involved in policy design.

Traders, private partners, farmers and government all lack honesty.

Yard employees are overburdened with work, face various kinds of problems but senior officers don’t care about their problems.

Private partners do not display ability, sincerity, integrity and honesty.

Lack of care and concern marks government offices.

The context of government officers is replete with instances of lack of care, poor abilities, lack of honesty and sincerity. This results in low levels of trust between them and other stakeholders.

Lack of ability, care and sincerity
## PRIVATE PARTNER INTERVIEWS (SUMMARY AND CODES)

<table>
<thead>
<tr>
<th>Interview</th>
<th>Summary</th>
<th>Main Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agriculture is an uncertain and unprofitable occupation, especially for the small farmers. Loan repayments are a cause of farmer poverty. Traders influence the decision of farmers for planting.</td>
<td>absence of senior government officers from their offices is taken for granted, agriculture is an uncertain occupation, agriculture is not a profitable occupation for small farmers, descriptive themes (yard processes, yard commodities, etc.), farmers decision to plant commodities are influenced by cost of inputs, farmers decision to plant commodities are influenced by the traders, farmers decision to plant commodities is influenced by access to yards, loan repayments is a cause of farmers poverty</td>
</tr>
<tr>
<td>2</td>
<td>There are variations in the yard processes and the government does not trust the PP completely.</td>
<td>description of Sauda transactions, description of weight adjustments in yards, description of yard processes, government does not trusts the private partner, ITC e-choupal related, private partners understand that they should collect the data on their own, traders in yards keep the farmers bag, variations in yards</td>
</tr>
<tr>
<td>3</td>
<td>All the stakeholders are crafty and deceitful. The government is full of incapable and corrupt officers. The traders manipulate the records, the farmers are non-cooperative, and the government officers are corrupt, incompetent and sycophants. In such situation, computerisation cannot be successful. The source of government related problems in the yard is target setting.</td>
<td>Descriptive (description of reports etc. generated by PP, description of yard processes, description of sources of yard income, description of yard, description of yard processes), reasons for failure of computerisation, farmer behavior related, blame on government officer, trader behavior related, target setting is source of all problems in yards</td>
</tr>
<tr>
<td>4</td>
<td>Government is primarily responsible for problems in the yards and failure of computerisation.</td>
<td>government and traders join to exploit the yards, government is not cooperating with the private partners, government is responsible for yard problems and failure of computerisation government officers are corrupt, government officers are hegemonic, often ground reality cannot be presented in written clause, security threats pose a major problem in the yards,</td>
</tr>
<tr>
<td>5</td>
<td>Changing the mind-set of people is very difficult to suit computerisation. All stakeholders often are not fair and often they come together to exploit the yard. Government officers are inefficient, corrupt and insincere. Traders are a powerful lobby who exercise considerable hegemony in the yards and manipulate the records. Yards do not have autonomy to utilise their own funds in the yards.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td></td>
<td>stakeholders interpret the contract differently, yards problems cannot be solved because all stakeholders are crafty. After computerisation trader liabilities can be quickly checked, all stakeholders join together to exploit the yard, both farmers are traders are deceitful and crafty, changing the mind-set of people is very difficult to suit computerisation, cleanliness is a major problem in yards, computerisation has introduced orderliness in the system but at a low level, DESCRIPTIVE (description of the tax collected in yard, description of agricultural practices, description of auction contract and cancellation process, description of farmer mentality, description of quality conflicts, description of soya trade, description of weight certificatory – tulawati, description of yard proforma and documents, description of yard processes, etc.), farmers are not aware about computerisation, government employees are not hardworking, government employees are susceptible to corruption, government machinery is full of problems, government officers are corrupt, queue breaking presents a major problem in the yards, stakeholders do not help each other, traders are a powerful lobby that influences policy, traders are a powerful lobby against computerisation, traders are hegemonic, traders do manipulations, traders harass the weight certificatory, variations in yard processes, weighing is a time consuming process, yards do not have adequate security, yards do not have freedom to utilized their own funds, yards have insufficient infrastructure</td>
<td></td>
</tr>
</tbody>
</table>
Agriculture is an uncertain and unprofitable occupation, especially for the small farmers. Loan repayments are a cause of farmer poverty.

| Traders influence the decision of farmers for planting. Traders are a powerful lobby who exercise considerable hegemony in the yards and manipulate the records. |

| All the stakeholders are crafty and deceitful. The government is full of incapable and corrupt officers. The traders manipulate the records, the farmers are non-cooperative, and the government officers are corrupt, incompetent and sycophants. All stakeholders often are not fair and often they come together to exploit the yard. Changing the mind-set of people is very difficult to suit computerisation. In such situation, computerisation cannot be successful. |

| Government is primarily responsible for problems in the yards and failure of computerisation. Government officers are inefficient, corrupt and insincere. The source of government related problems in the yard is target setting. |

| The government does not trust the PP completely. |

| There are variations in the yard processes. Yards to not have autonomy to utilise their own funds in the yards. |
Agriculture is an uncertain and unprofitable occupation, especially for the small farmers

Traders are a powerful lobby who exercise considerable hegemony over other stakeholders

Government is primarily responsible for yards problems and failure of computerisation because government officers are inefficient, corrupt and insincere

The government does not trust the PP

Target setting encourages corruption in the yards

Yards to not have autonomy to utilise funds.

In such a situation, computerisation cannot be successful

Changing the mind-set of people is very difficult to suit computerisation

All the stakeholders are crafty and deceitful. Stakeholders are not fair to each other
## TRADER INTERVIEWS (SUMMARY AND CODES)

<table>
<thead>
<tr>
<th>Interview</th>
<th>Summary</th>
<th>Main Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Traders do unregistered deals and un registered deal has a negative impact on yard revenue. Government employees are corrupt and government is unfair in levying the tax structure. Farmers do quality manipulations.</td>
<td>benefits of computerisation, DESCRIPTIVES (description of Pakshik, description of stock checking by the government, description of trader business strategies, description of tasks of labors, description of tax structure, description of trader background), farmers do cancel their auction contracts, farmers do not do quality manipulations, government employees are involved in corruption, government is unfair to traders in imposing the tax, powerful business lobby has interest in commodity trader, trader mix commodities of various qualities, traders are involved in doing Un Registered Deals, traders do not form prices to fix the prices, un registered deals have a negative impact on yard trade</td>
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<tr>
<td>2</td>
<td>Government employees are inefficient and insincere.</td>
<td>Government employees are inefficient and insincere.</td>
</tr>
<tr>
<td>3</td>
<td>Traders/ commission agents have old relations with farmers and so farmers trust the traders</td>
<td>description of commissioning, traders are reluctant to disclose the yard taxes that they deposit, traders have old relations with farmers, trading is an ancestral occupation</td>
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### TRADER INTERVIEW SUMMARY COMPARISON

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<td>Government employees are inefficient, insincere and corrupt.</td>
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<td>Government is unfair in levying the tax on the traders.</td>
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</table>
Appendix 2: Constant Comparison Method (All Stakeholders)

THEMATIC MAP FOR TRADERS

- Government employees are inefficient, insincere and corrupt.
- Government is unfair in levying the tax on the traders.
- Traders do unregistered deals which has a negative impact on yard revenue. Farmers do quality manipulations.
- Low level of trust in government, farmers as well as other traders.
### Appendix 2: Constant Comparison Method (All Stakeholders)

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### Appendix 2: Constant Comparison Method (All Stakeholders)

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APPENDIX 3: DOCUMENTS RELATED TO TRADE IN YARDS

Entry slip issued in yard\textsuperscript{46}

\textsuperscript{46} The following information is included in this document: Proforma number, name of the yard, title of the document, name of the related yard by-law, book number, receipt number, date, name of the farmer, village address, block, district, name of the commodity, estimated quantity, vehicle, registration number of vehicle and signatory name.
Appendix 3: Documents related to trade in yards

Auction slip issued in yard\textsuperscript{47}

\textsuperscript{47} The following information is included in this document: Name of the yard, proforma number, title of document, name of the related yard by-law, contract number, date, booklet number, name of the commodity, name and address of the trader, name of the firm and license number, description of the commodity, auction rate of the commodity.
Appendix 3: Documents related to trade in yards

Weight slip issued in yard

The following information is included in this document: Name of the yard, proforma number, title of document, name of the related yard by-law, weight slip number, booklet number, date, auction slip contract number, name of purchaser, name of the commodity, actual weight, number of bags, weight of the loaded vehicle, weight of the unloaded vehicle, rate of auction.

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Appendix 3: Documents related to trade in yards

Payment slip issued in yard\(^{49}\)

---

\(^{49}\) The following information is included in this document: Name of the yard, proforma number, title of document, name of the related yard by-law, book number, receipt number, date, name of the firm, address, name of the trader, address of the trader, name of the auction slip contract number, weight slip number, name of the commodity, actual weight and rate of purchase, total value, signature of the seller and signature of the purchaser.
Appendix 3: Documents related to trade in yards

Trade record submission Proforma at a yard

50 The following information is included in this document: Name of the yard, proforma number, title of document, name of the related yard by-law, name of the firm, period of transaction (date from/ date to), names of commodities, respective weight and monetary value, purchases made on basis of NOC from other states, local purchases, out of state purchases, opening balance/ closing balance, total amount for which service charges are payable, advance deposits and weight for which NOC is required.
Appendix 3: Documents related to trade in yards

Trade’s declaration for obtaining NOC

1. कृषि उपज के वायरा/वायापी का नाम
2. कृषि उपज के उत्पादक संबंधी विवरण- के-वायरा की दशा में-
   (एक) वायरा का अनुसंधान (साम्प्रदेय) का क्रमांक
   (दो) मानक संख्या की अनुसूची (साम्प्रदेय) का क्रमांक
3. (एक) गांव का नाम/रहस्यबंध/विवाद
4. कृषि उपज के उत्पादक के विवरण-
   (एक) कृषि उपज का नाम
   (दो) मान (नाम)
5. व्यापारी द्वारा आयात की दिनांकि क्रमांक:
6. (उत्पादक की दिनांक का प्रमाण जा पर मूल ऐतिहासिक सामग्री के संरचना, गांव की अधिपत्य, जिनसे मूल नुसार स्नातकीय वैज्ञानिक स्नातक हो)
7. (ए) प्रविधान/ग्रामीण क्रमांक का नाम और जा पर/स्वामी का नाम
8. (बी) दिनांक
9. (बी) जाल क्रमांक

एवं द्वारा हेतु योजना के अनुसार क्रमात आयात की दिनांकि के साथ है। अत: अनुसार पर प्रमाण के रूप का बताया गया।

सरपंच का प्रमाण-पत्र

प्रमाणित किया जाता है कि श्री
इस पंचायत के अन्तर्गत ग्राम

उपरोक्त का श्रेणी (उपादक) है, यह अन्य राज्य की व्यापारी के स्वाभाविक कृषि उपज भी भेज रहा है।

सरपंच के हस्ताक्षर

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The following information is included in this document: Name of the yard, proforma number, “only for use within state”, title of document, name of the related yard by-law, name of trader, license number, name of the commodity, quantity, value of the commodity, invoice number submitted by trader, date of invoice, name and address of transporter, receipt number of yard service charge payment, name of the trader to whom commodity is being dispatched and declaration.
Appendix 3: Documents related to trade in yards

NOC issued by a Yard

---

52 The following information is included in this document: “only to be used within the state”, Name of the yard, proforma number, title of document, name of the related yard by-law, book number, date, name of commodity, quantity and weight, name of the owner, vehicle type and registration number, receipt number and date of the yard service charge payments, destination yard, details of commodity such as date of purchase, commodity, undertaking/ declaration, signature of authority and no objection certification.
# APPENDIX 4: NODES AND THEME INFORMATION

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## Appendix 4: Nodes and themes information

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| Government employee issues of mandi\Job context of government officers\job history of some government employees\ | 6 | 1 |
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| Government employee issues of mandi\Job context of government officers\job history of some government employees\job history with EKVI | 1 | 1 |
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| Government employee issues of mandi\Job context of government officers\job issues of mandi employees\lower level mandi employees work as temporary staff for long time | 1 | 1 |
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## Appendix 4: Nodes and themes information

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## Appendix 4: Nodes and themes information

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#### 10 stakeholder strategies\framers' strategy\%

| stakeholder strategies\framers' strategy\agitations and conflicts\ | | 37 | 1 |
| stakeholder strategies\framers' strategy\blames the government officer\ | | 2 | 1 |
| stakeholder strategies\framers' strategy\does not follow the queue\ | | 2 | 1 |
| stakeholder strategies\framers' strategy\maintains contact with traders\ | | 1 | 1 |
| stakeholder strategies\framers' strategy\mortgages the commodity in warehouses\ | | 1 | 2 |
| stakeholder strategies\framers' strategy\patience\ | | 3 | 2 |
| stakeholder strategies\framers' strategy\physical threat\ | | 1 | 2 |
| stakeholder strategies\framers' strategy\political pressuring\ | | 1 | 2 |
| stakeholder strategies\framers' strategy\private deals with traders through negotiations\ | | 1 | 2 |
| stakeholder strategies\framers' strategy\quality manipulations\ | | 8 | 3 |
| stakeholder strategies\framers' strategy\sells the commodity in different lots\ | | 1 | 3 |
### Appendix 4: Nodes and themes information

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## Appendix 4: Nodes and themes information

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