CHAPTER 5 CONCLUSIONS

5.1 Unique Contributions

This study has both theoretical and practical contributions. It addresses the most important problem that is recognized by researchers and practitioners but very little has been researched or proposed. This study does support findings of many researchers regarding various key drivers behind the decision of outsourcing and goes beyond in recommending a framework that could be implemented by various sectors in the industry.

The proposed framework is based on the extensive study undertaken with the focus on telecom operators and various vendors such as IT services companies and companies providing network infrastructure to the operators. These companies form important parts of the supply chain for the operators. There are many other companies such as consulting firms, tower management companies, content providers, etc. who are also part of the supply chain for the operators.

The focus being Indian telecom industry and outsourcing by telecom operators the framework will need certain level of customization when it is to be applied and implemented by the telecom operators in other countries. This framework will also be applicable to other sectors in the industry. The fundamental concept remains the same across the sectors. Most researchers have presented studies in the qualitative format only and primarily based on number of case studies. The researcher has presented findings in the qualitative and quantitative formats which provide a deeper insight into the topic under investigation. This study is unique in the context of India and telecom operators.

5.1.1 Theoretical Contributions

There has been substantial discussion and research on the theoretical concepts like transaction cost economics (TCE), resource based view (RBV), and relational view (RV). Transaction cost economics discusses governance structures to be adopted depending on working with external vendors or working internally or creating alliances. Resource based view emphasizes on internal resource of the firm to be an asset. The core competence approach and
its relationship with outsourcing has evolved based on the RBV concept. Relational view emphasizes on the collaborative nature of working between vendors and clients.

This study not only supports recommendations of these concepts but verifies it in implementation in an industry sector. Researchers lately have recognized that the level of innovation in outsourced products/services is low but no framework has been proposed that could be implemented across industry sectors. Similarly professionals have agreed about lack of innovation but companies continue to work in a fire fighting mode only. The contribution of this study could be broken down in three parts.

First, this study provides a perspective of employees at all levels in the company regarding innovations in outsourced contracts. There are different issues and concern for an employee in the company depending on the level of the employee in the organization. This is something not addressed by researchers which is done in this study.

Second, several professionals at various levels in organizations were interviewed to get their opinions about the topic of research in this study. This interaction provided the ground reality which is far removed from what is discussed in the published literature. Professionals expressed their limitations and difficulties they face in meeting expected results in outsourced contracts. This information is useful for designing the framework.

Third, the empirical analysis brought out key parameters of concern compared to other set of parameters that were used in one on one interviews or survey. It was also noticed that the parameters rated high in loading are in sync with the parameters used while interacting with the professionals. This also suggests that the framework that is proposed is very strong and robust.

5.1.2 Managerial Implications

Many of the findings in this study offer guidance to employees at all levels in client and vendor organization. Researcher’s understanding is that these recommendations will be well received by managers at all levels and also the operational staff. This is primarily because companies must remain competitive and ahead of the curve in global competition. This can happen only if company is innovative in products/services offered. At senior level in the organization, managers will have to decide on the type of working model to be adopted with vendors though our framework suggests creating strategic relationship with all the vendors.
The framework also suggests including representatives from all levels in the organization when the decision about outsourcing is discussed by senior managers.

Middle level managers are the ones who get marching orders from the senior management and they have to work with the operational staff to deliver expected results. They also have to work with vendor teams. The framework suggests middle level managers to be actively engaged in contract formulation as expected level of innovations must be specified along with performance measures and funding allocation in the contract. Middle level managers will need to create conducive and collaborative work environment among all the teams. Employees will have to be made aware of creation of intellectual property and the process involved for protecting it. Hence relevant training programs will have to be sourced by the human resource management organization based on the recommendations of the managers.

Operational staff and managers will have to be empowered to think out of box and allow them to spare time for brainstorming. The concept of ‘billable bodies’ is destroying any initiative undertaken by operational staff if that is not supported by the client or paid for by the client. Hence the contract formulation will be important.

5.2 Proposed Framework

This study has focused on investigating level of innovations in the outsourced processes and various factors that impact the activity of creating innovations. The framework Collaborative innovation in outsourced products/services (CIOPS) is not something that can happen overnight or by simply formulating contracts promoting innovations during the execution stage of the contract. Similarly innovations cannot be introduced at any stage during the execution of the contract. To ensure that both teams of client and vendors will collaborate and cooperate during all stages of the contract, this must be addressed from the very initial stage when a strategic decision is taken by the senior management in the sourcing organization about sourcing products/services from external vendors. It is expected that the company team will follow the outsourcing process as described in an Appendix 3.

A three layered approach as shown in Figure 5.1 is recommended to be followed in the entire process. The Layer 1 of the process is primarily for the internal teams to decide about outsourcing products/services. During this process, it is expected that the management of the company will take a very critical look at the current situation and reasons for outsourcing.
There could be number of reasons which could be company specific. Once the management firms up the decision about outsourcing, the team is expected to follow the process as Layer 2. The process for Layer 2 is discussed in details in Appendix 3. The outcome of the Layer 2 process would be selection of vendors and this becomes the input to the Layer 3 process. The Layer 3 process focuses on the delivery of products/services as specified in the contract in addition to expected level of innovations.

If the proposed layered process is not followed as explained and an adhoc decision is taken about outsourcing, the outcome may not be what is expected. It is expected that employees at all levels must be involved before the vendors are decided. This is necessary due to the impacts and changes created by outsourcing in the organization.

The focus of this study is the process for Layer 3 which focuses on delivery of products/services as per the contract in addition expected level of innovations. This process consists of five iterative stages; (1) strategic goal setting for innovations, (2) contract formulation, (3) organizational planning, (4) contract execution (5) innovations.

The proposed framework in this study is based on the key findings as follows:

- Preferred working model is forming strategic partnership with vendors,
- Contract formulation should be such that adequate importance is mentioned for creating innovations in the outsourced products and services,

- Collaboration and cooperation among client and vendor teams is critical,

- Middle level and operational level staff must be involved at various stages of the decision process,

- Operational staff must be empowered to think out of box and think beyond simply meeting SLAs,

- Innovations must be created for enhancing competitive position of clients hence innovations in outsourced products and services have strategic importance,

The framework as discussed in the following sections will be integrated with the current framework that is used in the industry.

Stage one in the framework is concerned about reviewing the competitive position of the company and conducting a gap analysis. This exercise will translate into programs for products/services enhancements, discontinuation of some products/services, introduction of new products, and innovations that will improve productivity, efficiency, and also create IP. The analysis in the stage 1 highly critical as it will form the foundation for rest of the stages in the process.

In stage two the contract formulation is undertaken. This task will involve employees at various levels due to their association with the candidate processes to be outsourced. The teams will decided on the terms and conditions to be included in the contract along with expected level of delivery including innovations. This document also must include allocation of funds for the teams to focus on innovations, environment that needs to be created, training programs to organized, and rewards and recognition programs for employees creating innovations and IP. The ownership of IP will also be addressed in this document.

The third stage clarifies the changes in the organisation due to outsourcing. The most important change will deal with human resource reorganization. This needs to done carefully as most in-house skills and competencies will move with the employees to the vendor’s organization. Due to this change, expected level of innovations will be impacted. It is usually recommended that companies should maintain innovations related activities in-house
and also build necessary skills and competencies. Since the framework is about collaborative way for innovations in which client and vendor teams are involved, client must ensure availability of adequate skills and competencies related to innovations working on outsourced contracts.

The stage four is about contract execution. This is when the transition will begin followed by transfer of employees to vendor organizations. Client must implement procedures, policies, and install infrastructure which will be necessary for employees working on innovations. During this phase review process for innovations will be established. Client and vendor teams will organize required training programs to acquire skills necessary for devising new solutions.

In stage five, innovation is made regarding the outcome of outsourced products/services in connection to the strategic plan. If circumstances have not changed and the recent change is not creating desired changes, the management will discuss contract and commitment with vendors. Teams from both sides will be involved in negotiations for amendments in the contract or even termination in some cases.

There are various key tasks to be executed at different stages in the framework. They are, 1) Setting up goals and objectives for innovations in outsourced contracts 2) Ensuring environment, awareness, and culture exits for creating innovations in the sourcing organization, 3) Formulating contract with equal importance to innovation and SLAs, 4) Measuring, recognizing, and awarding innovative contributions, and 5) Using innovations as one of the key criterion for renewal of contract.

In the above tasks members from various levels in the client as well as vendor organization are involved. This study also noticed that involvement of middle level managers is highly limited in the process of outsourcing while middle managers play a key role in execution and implementation of the contract working with the operational staff. All the stages involved in this framework perform in an iterative manner as the environment continues to be dynamic.

5.2.1 Framework For Collaborative Innovations in Outsourced Products/services (CIOPS)

Every organization is usually engaged in innovations internally but in the case of outsourced products/services, client teams have limited scope and role in this process as vendor teams
take ownership of the delivery internally to various parts of the organization and externally to the customers. Due to this relationship and dependency a collaborative framework is required to be designed. In most cases, contracts are based on a single driver of cost reduction in which case creation of innovations does not get due focus in the strategic plan. The proposed framework in this study is the one that integrates innovations and delivering existing services at the highest quality with equal importance.

![Diagram](image)

**Figure 5.2: Process for Collaborative Innovations in Outsourced Products/services (CIOPS)**

The framework shown in Figure 5.2 is called the framework for collaborative innovation in outsourced products/services (CIOPS). Entire organization is expected to be involved that is responsible for the products or services that are sourced from outside. In the framework, senior executives include ‘C’ level executives of all the key functions such as finance, IT, R&D, marketing, HR, and SBU Heads. Middle level managers include employees managing product, process, innovations, R&D, business development, legal issues, and marketing. Operational staff includes employees involved working as designers, developers, testers, and customer support. Each stage in this framework has multiple steps as discussed below:

**Stage 1: Strategic Goals Setting for Innovations in Outsourced Contracts**

1. Gaining competitive advantage in products/services offered by the company
2. Innovations at Operational level
3. Innovations in Business Processes
4. Strategic innovations
5. Deciding on the working model to be adopted
6. Outsource legacy systems and technology related work
7. Innovations are integrated in the overall business strategy

Stage 2: Contract Formulation

1. Include all the expected areas for innovations in the contract
2. Allocations of funds for innovations related activities
3. Infrastructure investments required to promote intellectual property creation
4. Ownership of intellectual property
5. Risk and revenue sharing related to innovations

Stage 3: Organizational planning

1. Creation of innovation team
2. Setting up infrastructure for employees’ to use
3. Identify necessary skills and competencies
4. Setting up review and reporting mechanism and timelines
5. Setting up information sharing policies and procedures among teams

Stage 4: Contract Execution

1. Selecting tools and techniques for measuring impact of IP and innovations on products/services and processes
2. Initiate transition to vendor teams
3. Reorganization with the focus on quality of delivery and IP creation
4. Periodic review meetings
5. Integration of new solutions and deployment of enhanced products/services offering to customers

Stage 5: Innovations Evaluation

1. Reviewing performance of teams working on innovations or creating IP
2. Measuring impact of new ideas, solutions, and products enhancement
3. Innovation team’s recommendations for integrating enhancements
4. Mapping innovations in company’s roadmap and conducting gap analysis
5. Providing inputs to the planning teams for work program planning

5.2.2 Key Blocks of CIOPS

The stage 1 in this framework comprises of goals which are strategic in nature and decided by the senior and middle level managers in the organization. The tasks related to these goals are discussed in the Table 5.1 below.
The stage 2 involves mostly senior and middle level managers from client and vendor organizations. Contract formulation is one of the most critical tasks in this stage. As it is discussed in previous chapters, contracts are primarily focusing on meeting SLAs hence
creation of IP or innovations do not find adequate mention. The researcher suggests that this is the stage and this is the task which needs mention of innovations and allocate funding, time, resource, and provide environment for employees to be creative.
The stage 3 of the framework focuses on operational planning. This is stage it is expected that middle level managers and operational staff will plan together. Since the focus is creation of IP and innovative solutions, collaborative planning between client and vendor teams is important.

### Table 5.2: Stage 2 – Contract Formulation

<table>
<thead>
<tr>
<th>Contract Formulation</th>
<th>Members involved</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Include all the expected areas for innovations in the contract</td>
<td>SBU Heads, Product and Process managers, Key account manager, Program manager, and, Delivery manager</td>
<td>Internal functional and cross functional teams work together and identify areas for improvement. Similarly product teams engage with vendor teams for product/services enhancement and also for next generation work.</td>
</tr>
<tr>
<td>Allocation of funds for innovations related activities</td>
<td>'C' level executives, None</td>
<td>Contract must have allocation of funds specified for promoting innovations. Investments may be needed for platforms (hardware, software, tools) required for designing, developing, testing, and integrating new ideas and solutions. Similarly employees contributing in creating IP must be recognized. The process of IP protection will also need funds.</td>
</tr>
<tr>
<td>Infrastructure investment required to promote intellectual property creation</td>
<td>'C' level executives and SBU Heads, Key account manager</td>
<td>Infrastructure investment will include facility having laboratories, instruments, tools, computing platforms, high end hardware and software, etc. Some of this investment could be shared between client and vendor teams. In some cases vendors can have entire set up in their own premises with their own investments.</td>
</tr>
<tr>
<td>Ownership of intellectual property</td>
<td>Innovation manager and Legal Team, Key account manager and Legal Team</td>
<td>This is one of the most critical issues between vendors and clients. Client would always want total ownership of IP since it was created while working on the contract and also funded by the client. Since clients insist on it, it acts a demotivator for vendor teams and management. In some cases there could be joint ownership as well. patents based on IP could be jointly claimed and could be awarded to client and vendor members.</td>
</tr>
<tr>
<td>Risk and revenue sharing related to innovations</td>
<td>'C' level executives and SBU Heads, Key account manager</td>
<td>As discussed before about the ownership of IP, vendors need to have a stake in innovations if innovations are creating some tangible advantage to clients. It is extremely difficult to quantify innovations and benefits to the business but vendor would expect returns on their efforts.</td>
</tr>
<tr>
<td>Organizational Planning</td>
<td>Members involved</td>
<td>Task</td>
</tr>
<tr>
<td>------------------------</td>
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</tr>
<tr>
<td>Creation of an Innovation Team</td>
<td>SBU Heads and Innovation manager</td>
<td>The SBU heads on the client and vendors side must get together and identify resource which will be part of innovation team. Unless dedicated effort is made innovations cannot be created hence dedicated resource is very much required. This team will also work on delivery but will be empowered to spend time and resources for pulling ideas together from employees and reviewing them for alignment with the business.</td>
</tr>
<tr>
<td>Setting up Infrastructure for employees to use</td>
<td>SBU Heads and Key account manager</td>
<td>This will involve setting up huddle rooms, required laboratories, library resource, software tools, and access to information. Infrastructure could be set up at client or vendor facility or at both locations so that employees are free to use while working on projects. Teams on both sides must be governed by same set of policies which empower employees to spend time on brainstorming ideas.</td>
</tr>
<tr>
<td>Identify necessary skills and competencies</td>
<td>Innovation manager and HR manager</td>
<td>Innovation manager and Delivery managers will decide set of skills and competencies required in the innovation teams. It is imperative to ensure that teams are equipped with required skills and knowledge to create innovations and IP. If there are gaps in this, HR manager must address this by arranging necessary training sessions.</td>
</tr>
<tr>
<td>Setting up review, reporting, and timelines</td>
<td>Innovation manager and Delivery manager</td>
<td>This task involves setting up procedures for periodic reporting, identifying members who must attend, reviewing timelines against delivery, and actual delivery against expectations. This will also identify gaps. The delivery in this case will not be limited to meeting simply SLAs but also reviewing other aspects such creation of IP, filing for patents, improvements in processes, and enhanced products or services offering to customers.</td>
</tr>
<tr>
<td>Setting up information sharing policies and procedures among teams</td>
<td>SBU Heads and Innovation manager</td>
<td>Information sharing in collaborative environment is critical. Since multiple vendors are working with the same client and same processes, information sharing among vendor and client teams is critical. If information sharing does not happen then each team will try creating innovations which may be local to the part of processes for which they are responsible but then end to end solution will not be designed for improvement of process or products/services.</td>
</tr>
</tbody>
</table>
The stage 4 primarily deals with the implementation of the contract. Operational staff members under the supervision of the middle level managers are the key players in this phase. Implementation is based on the terms and conditions agreed by both parties in the contract. As discussed in the previous stages, contract must have a well-balanced deliverables for SLAs and innovations. Most operational level issues surface during this phase of the contract. If the contract is formulated properly and if teams work in collaborative way, the outcome could be very close to expectations of the senior executives. Table 5.4 discusses key functions and tasks to be carried out by the employees at various levels in client and vendor organizations.
In the stage 5 of the framework, evaluation of innovations will happen and client teams involved would be mostly product and processes related while vendor teams would be related to delivery, account management, and legal issues. One of the most important tasks in this phase would be to measure impact of innovations on the business and quantify it. Similarly
the teams will conduct the gap analysis of and advise senior and middle level executives about necessary work program plan to reduce the gap.

Table 5.5: Stage 5 – Innovations Evaluation

<table>
<thead>
<tr>
<th>Innovations Evaluation</th>
<th>Members involved</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reviewing performance of teams working on innovations or creating IP</td>
<td>CTO org. and Innovation manager</td>
<td>It is expected that the contracts will have clearly specified sections which will address innovations. While teams will work collaboratively, it is important to measure and quantify innovations and the impact of them. Team's performance will be judged on several parameters such as collaboration, cooperation, creativity, alignment with the business objectives, and focus on day to day deliverables as well as new ideas and solutions.</td>
</tr>
<tr>
<td>Measure impact of new ideas, solutions, and product enhancements</td>
<td>Business managers and Product managers</td>
<td>As discussed before innovations may bring marginal improvement in the performance of the internal processes, increase efficiency, reduce waste, reduce cost, etc. Some innovations may bring a paradigm shift. Hence it is necessary to measure the impact of new ideas, solutions or innovations on the business, potential returns, and competitive advantage.</td>
</tr>
<tr>
<td>Innovations team's recommendations for integration and further process for protecting IP</td>
<td>CTO org., Legal Dept., and Innovation manager</td>
<td>Based on the impact measurement, client teams could advise management to integrate them in products or services offerings. Teams could also recommend to management to protect IP by taking next steps in the process such as documenting original claims and patenting the ideas.</td>
</tr>
<tr>
<td>Mapping innovations in company’s roadmap and conducting gap analysis</td>
<td>Product and Process managers</td>
<td>The company is expected to conduct a detailed competitive analysis every year and must conduct gap analysis with best in class. If the company is the leader in market then the management has to make sure that the company stays ahead of the curve through new products and services and innovations. Gap analysis needs to be conducted to understand the relative position of the company in the market. This gap analysis must be used to map out strategy and work plan for the next year.</td>
</tr>
<tr>
<td>Providing inputs to the planning teams for work program planning</td>
<td>Product, Process, and Innovation managers</td>
<td>Innovations development loop must be closed by providing feedback by the product, process, and innovations teams to the middle management who is responsible for work program planning.</td>
</tr>
</tbody>
</table>

5.2.3 The Framework CIOPS Implementation Challenges

The proposed framework is designed to enhance the level of innovations in outsourced products/services. It is a collaborative working model. While it is proposed to implement...
this model, the delivery model is equally important. Hence both the implementations will be integrated. Innovations are important for enhancing competitiveness while day to day delivery is important for the healthy functioning of the company. Some of the challenges that may be faced for the implementation are:

- **Additional allocation of resource for innovation teams**: Clients continue to look at cost savings as one of the key drivers for outsourcing. By allocating funds and resource separately for innovations may drive down cost savings hence the business case may look weak. If the management is committed to innovations then this allocation has to be committed in the contract. There are possible solutions such as sharing of resources and funds between the teams but then that may create problems for the ownership of IP. Another possible solution could be instead of having a dedicated resource for innovations; delivery teams could be given a mandate to create IP and innovations as part of their responsibility. The downside of this will overburdening delivery teams as they are also responsible for meeting all the SLAs as specified in the contract.

- **Conflict among delivery and innovation teams**: While delivery teams (operational staff members) are busy meeting their commitments and fire fighting on daily basis, they may be under pressure by the innovations teams for information gathering, interviews, discussions, testing ideas, etc. The delivery management may resist this as it will impact their schedules and timelines. It is also likely that once the new solutions are implemented, the delivery teams will be asked to support and maintain them which may also create conflict among teams. The possible solution will be forming a team which has members from various functions such as delivery, account management, innovations, and product management.

- **Collaboration among teams**: It is expected that all the teams will work together, share information, design and develop ideas together for the clients. These vendors also compete with each other in the market and also want to increase their respective share of the opportunity with the clients. In such a scenario, collaboration may not happen to the level it is expected for creating innovations. The contract must have certain terms and conditions which will ensure sound collaboration among teams. Possible lack of
collaboration could be primarily due to competition among themselves and insecurity about renewal of the contract at the end of the term.

- **Ownership of IP**: Ownership of IP could prove to be a highly controversial issue among teams. From the case studies, it is obvious that clients expect to own entire IP created by teams while working on the project. At the same time, vendor teams would also like to do that since they have put in efforts for creating IP. Vendors could create ideas and solutions internally and propose to clients for a cost to implement them which will create new business opportunity and revenue for them. This is more compelling for vendors than creating IP while working on a client project and not getting any ownership for it. Ownership of IP issue could be demotivating for vendor teams if the vendors do not see returns for their investments.

- **Quantification of Innovations**: Certain innovations produce immediate impact on the top line and bottom line while some innovations may be forward looking in nature. It will be difficult to quantify the impact of such innovations on the top line. In such cases, the teams may not be rewarded adequately which may demotivate team members. Vendor team members may expect returns in terms of promotions, salary increase, and cash awards which may not materialize due to inadequate quantification of benefits of innovations.

### 5.3 Limitations

Every study has certain limitations similarly this study is not free from limitations. The phenomenon of outsourcing is global in nature and cuts across all the industry sectors. Every industry sector has different set of characteristics and is driven by a unique set of drivers in the decision of outsourcing. There are certain factors which remain common such as cost reduction, outsourcing legacy work, new market opportunities, and creating collaborative innovations. The first limitation for this study is, it is targeted towards only Indian telecom operators and the supporting services companies. Supporting services companies may be global corporations but the focus of this study is to understand working relations and models of these companies with Indian telecom operators operating in India.
Second limitation is primary data collection. Although the researcher has spent long hours with interviewees during one on one sessions, there is a serious reluctance on the part of professionals to not to be too vocal in criticising vendor teams and management. There is a clear indication that these relationships are strained and there is a lot of blame game but everyone wants to be quite about it. In the process, it is a challenge to extract the real picture. A serious effort is made in forming the questionnaires to extract as much information from respondents but due to the sensitive nature of these relationships, professionals are careful in going on the record by putting things in black and white.

Third, the study is targeted towards the telecom industry in India only. The proposed framework CIOPS for enhancing the level of innovations in outsourced products/services is generic in nature, it will have to be customized to each industry sector. The validity of the framework could not be done in the interest of time and expenses. It could be discussed with the professionals and feedback could be sought as a part of future work.

5.4 Further Research Directions

In future, it is recommended to extend this study to other industry sectors. As discussed in the previous section certain level of customization may be needed although the framework is generic in nature. Learning from these studies will eventually enable to design a single framework for the industry. The proposed framework is with the focus on innovations but it needs to be integrated with the delivery model. The researcher firmly believes that innovations could not happen in isolation but only when innovation framework and delivery framework are integrated.

Second, a study could be undertaken by selecting a subset of the parameters that the researcher has considered in this case. For example culture and communication could be taken as a parameter and a detailed study could be undertaken to investigate impact of these factors on delivery and creation of innovations. It will be a highly relevant study under the current scenario when outsourcing is truly global and companies are working across the cultures and borders.

Third, companies are using cloud service providers in their overall strategy. The strategy is driven by factors such as reducing cost (operational and capital), enhancing competitive position, better management control on investments and flexibility in operations, and access
to software, platforms, and infrastructure on pay per use basis. Public and private cloud service providers have compelling reasons in their service model for most client companies to seriously consider this option. This working model will have a unique set of parameters in addition to which the researcher has used in this study. Detailed research could be undertaken to investigate issues and concerns and solutions on both the client and the vendor side.

Fourth, companies have been using supply chain for many products/services in the past and they will continue to do so and possibly expand this further. This study proposes the framework for enhancing innovations in outsourced products/services. Clients need to leverage supply chain for enhancing competitiveness since most competitors are also adopting similar working model. Further research could be undertaken for investigating that how companies who seem to be ‘Hollow Corporations’ can leverage supply chain and innovations for gaining competitive advantage.

5.5 Summary

After undertaking extensive qualitative and quantitative research, a unique framework for collaborative innovation in outsourced products/services (CIOPS) is prepared in order to investigate the level of innovation in outsourced projects with focus on Indian telecom operators, IT service companies and companies providing network infrastructure to the operators. With some level of customization, the framework could be applied to other sectors of the industry or telecom operators outside India.

The research offers guidance to employees at all levels in the company in a client vendor organisation regarding innovation in outsourced contracts. A three layer approach is recommended to be followed in the outsourcing process. The frameworks strongly recommends including representatives from all levels in the organisation in the discussion of decision making about outsourcing along with the senior management.

The researcher discusses various challenges in the implementation of CIOPS and also presents possible solutions to overcome the same. The researcher also provides directions for further research.