Chapter III
THEORETICAL MODELS AND HYPOTHESES

This chapter presents the various theoretical models which describe the variables of research interest. Based on the theoretical models the link between various constructs of the study has been established and this led to the development of the hypothetical research models which have enabled the formulation of hypotheses to be tested. The results of the hypotheses testing would be later used in the answering of the research questions and drawing of the implication of the study.

3.1 The Hypothetical Research Models

The hypothetical research models were the result of the literature review on the links between the various theoretical models of research interest. These links have been discussed in the following sections.

3.1.1 The Hypothetical Research Model - OCB Dimensions and KM

In this research OCB is the only exogenous variables whose influence is studied on the three endogenous variables (KM, TQM and PERF). For a micro level of analysis of the influence of OCB on these variables the influence of the individual dimensions of OCB on the endogenous variable has to be studied. So the following hypotheses were formulated (Figure 3.1).
**H1a:** Altruism has a significant influence on the knowledge management.

**H10:** Altruism has no significant influence on the knowledge management.

**H2a:** Courtesy has a significant influence on the knowledge management.

**H20:** Courtesy has no significant influence on the knowledge management.

**H3a:** Sportsmanship has a significant influence on the knowledge management.

**H30:** Sportsmanship has no significant influence on the knowledge management.

**H4a:** Conscientiousness has a significant influence on the knowledge management.

**H40:** Conscientiousness has no significant influence on the knowledge management.

**H5a:** Civic virtue has a significant influence on the knowledge management.

**H50:** Civic virtue has no significant influence on the knowledge management.
3.1.2 Hypothetical research model - OCB dimensions and TQM

**Figure 3.2: Hypothetical Research Model OCB-TQM**

**Figure 3.2: Hypothetical Research Model OCB-TQM**

**H$_{6a}$**: Altruism has a significant influence on the total quality management.

**H$_{6o}$**: Altruism has no significant influence on the total quality management.

**H$_{7a}$**: Courtesy has a significant influence on the total quality management.

**H$_{7o}$**: Courtesy has no significant influence on the total quality management.

**H$_{8a}$**: Sportsmanship has a significant influence on the total quality management.

**H$_{8o}$**: Sportsmanship has no significant influence on the total quality management.

**H$_{9a}$**: Conscientiousness has a significant influence on the total quality management.

**H$_{9o}$**: Conscientiousness has no significant influence on the total quality management.

**H$_{10a}$**: Civic virtue has a significant influence on the total quality management.

**H$_{10o}$**: Civic virtue has no significant influence on the total quality management.
3.1.3 Hypothetical research model - OCB dimensions and PERF

**Figure 3.3:** Hypothetical Research Model OCB-PERF

- **H₁₁ₐ:** Altruism has a significant influence on the operational performance.
- **H₁₁ₒ:** Altruism has no significant influence on the operational performance.
- **H₁₂ₐ:** Courtesy has a significant influence on the operational performance.
- **H₁₂ₒ:** Courtesy has no significant influence on the operational performance.
- **H₁₃ₐ:** Sportsmanship has a significant influence on the operational performance.
- **H₁₃ₒ:** Sportsmanship has no significant influence on the operational performance.
- **H₁₄ₐ:** Conscientiousness has a significant influence on the operational performance.
- **H₁₄ₒ:** Conscientiousness has no significant influence on the operational performance.
- **H₁₅ₐ:** Civic virtue has a significant influence on the operational performance.
- **H₁₅ₒ:** Civic virtue has no significant influence on the operational performance.
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$H_{16a}$: Altruism has a significant influence on the financial performance.

$H_{16o}$: Altruism has no significant influence on the financial performance.

$H_{17a}$: Courtesy has a significant influence on the financial performance.

$H_{17o}$: Courtesy has no significant influence on the financial performance.

$H_{18a}$: Conscientiousness has a significant influence on the financial performance.

$H_{18o}$: Conscientiousness has no significant influence on the financial performance.

$H_{19a}$: Sportsmanship has a significant influence on the financial performance.

$H_{19o}$: Sportsmanship has no significant influence on the financial performance.

$H_{20a}$: Civic virtue has a significant influence on the financial performance.

$H_{20o}$: Civic virtue has no significant influence on the financial performance.

$H_{21a}$: Altruism has a significant influence on the non-financial performance.

$H_{21o}$: Altruism has no significant influence on the non-financial performance.

$H_{22a}$: Courtesy has a significant influence on the non-financial performance.

$H_{22o}$: Courtesy has no significant influence on the non-financial performance.

$H_{23a}$: Sportsmanship has a significant influence on the non-financial performance.

$H_{23o}$: Sportsmanship has no significant influence on the non-financial performance.

$H_{24a}$: Conscientiousness has a significant influence on the non-financial performance.

$H_{24o}$: Conscientiousness has no significant influence on the non-financial performance.

$H_{25a}$: Civic virtue has a significant influence on the non-financial performance.

$H_{25o}$: Civic virtue has no significant influence on the non-financial performance.
3.1.4 Hypothetical Integrated Model - OCB, KM, TQM and PERF

The Hypothetical model with the associated dimensions of study are depicted in Figure 3.4.

Figure 3.4: Integrated Hypothetical Research Model

3.1.5 Link between OCB and TQM

Several studies typically suggest that OCB is positive for organizations and benefits both management and subordinates. Managers value OCB that creates a work environment conducive to cooperation and it helps to reduce the amount of time a manager spends on an issue and enables focusing on other opportunities for improving organizational performances (Turnipseed and Rassuli, 2005). TQM methodology to firm’s performance relationships have been studied by various researchers in a wide range of industries. The relationship between top management’s leadership and performance is recognized in the literature (Flynn et al., 1995; Powell, 1995). Numerous studies point out the significant relationship between HR related TQM elements and organizational performance (Powell, 1995; Arawati, 2005). There has been significant evidence suggesting that customer focus
can also result in increased performance (Ho et al., 2001). Some researchers recognize the importance of maintaining good working relationships with suppliers in order to impact performance (Saraph et al., 1989; Ahire et al., 1996). Other researchers indicate that a strong positive relationship exists between benchmarking and performance (Ahire et al., 1996; Arawati, 2005). Buentello et al. (2008) through their empirical study found that OCB by itself does not have a direct effect on customer satisfaction or productivity, but when these actions are directed towards TQM, increased performance would result. So, we propose the following hypothesis.

\[ H_{26a}: \text{OCB has a significant influence on the TQM.} \]

\[ H_{26o}: \text{OCB has no significant influence on TQM.} \]

### 3.1.6 Link between OCB and KM

In broad sense, linking OCB and KM is to some extent is linking HRM and KM as OCB is a concept from HRM. Hislop (2003) opines that KM in initial stages just focused on technology but only after a long time realized that people issues decide on it success or failure. Coyle-Shapiro & Kessler (2000) have found that KM success is through commitment of the employees, which is in turn through the OCB. In their research they focused only on two issues of KM i.e., Willingness to share knowledge and Active involvement in knowledge sharing activities. Scarbrough and Carter (2000) have found that OCB can influence to a great extent specific KM dimensions such as: Positive response to KM initiative, improved performance of knowledge workers, codification and personalization of business strategy, Long run strategic advantage, improved sharing of learning & tacit knowledge. They all claim that the practices are universal to all organizations. Kogut & Zander (1996), through their research have found that under the context of organizational identification, the ambience would induce more motivations for
organization members to share knowledge and, as a result, promote knowledge flows and exchange within organizations. Osterloh & Frey (2000) explored the relationship between psychological contract and knowledge sharing and claimed that an organizational structure and an incentive system have an effect on knowledge sharing within organizations. Specifically, both intrinsic and extrinsic motivations influence the effect of internal knowledge sharing and transfer. Intrinsic motivation, from a view point of psychological contract, suggests non-financial reward, such as public praise for outstanding behaviour, peer affirmation and job promotion. In this view, satisfaction in psychological contract would induce more knowledge sharing behaviour.

Thus, the relationship between OCB and knowledge sharing anchors in the employee’s cognition of organizational justice, the interaction between leaders and followers, organizational support and organizational identification. Based on the cognition in terms of different facets, organization members gradually build trust towards the organization. Moreover, it is the trust and without violation in psychological contract that encourage employees to perform citizenship behaviours and further promote their willingness of knowledge sharing. A shared context of social community helps organization members conduct OCB either beneficial to individual members or the organization as well as promotes the willingness of knowledge provider to share the embedded knowledge (Nahapiet & Ghoshal, 1998; Lesser, 2000). Therefore, either a social exchange theory or psychological contract perspective supports that, on condition that organization members conduct more altruistic behaviour, their willingness of knowledge sharing is accordingly amplified. Therefore, either with the motivation of reciprocity or with a high identity towards the organization, being in a social community, organization members will behave more organizational citizenship behaviours, and accordingly promote their willingness of
knowledge sharing thus contributing for better KM. So, the following hypothesis is postulated.

**H$_{27a}$:** *OCB has a significant influence on KM.*

**H$_{27o}$:** *OCB has no significant influence on KM.*

### 3.1.7 Link between OCB and Performance

Several studies link OCB to performance, and in doing so, they identify two groups: the best performing, and the worst performing. Understanding which employee characteristics managers use to rate them as best performing is the primary aim of such a research focus. These employees may take that ‘extra mile’ or they may be involved in activities contributing to the organization. Organ (1990) points out that OCB not only adds to performance, but it may also influence how managers evaluate employees. Katzell and Yankelovich (1975) argue managers believe OCB contributes to performance and suggest analyzing them with that in mind. OCB has now been included in performance evaluations (Werner, 1994). Further, some employees may use “impression management” style in order to create a favourable impression of themselves (Bolino and Turnley, 2003). In order for OCB to directly impact performance, these behaviours must be redirected towards promoting organizational effectiveness (Jung & Hong, 2008 and Beauregard, 2012). Organ (1988) points out in order for OCB to affect performance, the individual contributions must be aggregated throughout the organization. Organ (1988) argues that even though co-workers may benefit from employees who help others with heavy workloads or those who offer advice to newer employees, individual acts of OCB do not affect performance.
So, there is evidence on the influence of OCB on performance. But it does not consider the performance when TQM and KM act as the mediating variable between the two. So, the following three sets of hypotheses are proposed.

\[ H_{28a} \]: \textit{OCB has a significant influence on the Performance of the organization.}  
\[ H_{28o} \]: \textit{OCB has no significant influence on the Performance of the organization.}  

### Link between KM and TQM

A study conducted by Zedaneen (2006) examined the impact of using principles of TQM in government finance in Jordan and observed differences in the respondents’ perceptions about administrative management in Jordanian financial institutions and there were statistically significant discrepancies (in respondents’ perceptions) attributable to variations in age and qualifications and experience. In his study, Saket (2009) assessed the impact of KM and the relational ties between KM variables and competitive advantage for the insurance sector with TQM acting as moderator. In a study pertaining to various aspects of applications of TQM and the relationship between these applications and knowledge sharing was observed by Weng-Choong et al. (2009).

Aboyassin et al., (2011) conducted a study with KM processes as the independent variable, and TQM principles as the dependent variable in Insurance sector, which is a knowledge based service industry. Their study revealed significant relationships between Diagnosing knowledge, Knowledge acquisition, Knowledge generation, Knowledge sharing, Knowledge storing, and Applying knowledge) and TQM dimensions (TQM principles, Customer focus, Continuous improvement, Education and Training and Employee participation). So the following hypothesis has been proposed.

\[ H_{29a} \]: \textit{KM has a significant influence on the TQM.}  
\[ H_{29o} \]: \textit{KM has no significant influence on the TQM.}
3.1.9 Link between TQM and Performance

TQM has gained its importance in the global scenario owing to its contribution to the gaining of competitive advantage (Brah et al., 2002) in the market and overall performance is an important component of it. Influence of TQM has been studied on different measures of performance such as Organizational performance (Sterman et al., 1994), Business performance (Brah et al., 2000), Operational performance (Samson and Terziovski, 1999; Hendricks and Singhal, 1997), Plant performance (Choi and Eboch, 1998), Financial performance (Agus and Hassan, 2000; Eriksson and Hansson, 2003), and Stock performance (Hendricks and Singhal, 2001).

Flynn et al. (1995) found that the implementation of TQM improves and amplifies the firm’s external as well as internal performances. TQM enables satisfying the firm’s internal customers - its employees. With higher employee satisfaction, more preferable work environment for the employees results with consequence of overall performance improvement and competitive advantage (Guimaraes, 1997). Motivating its workforce to participate in the quality management practice may have significant impact on organizational performance. Other studies suggest that many of the TQM elements are positively associated with the firms’ performance (Hendricks and Singhal, 2001; Samson and Terziovski, 1999). All these studies indicate a strong association between TQM and PERF and thus the empirical relation is investigated in this research. All these research indicate that TQM has influence on different measures of performance and the following hypothesis is proposed.

**H₃₀ₐ:** TQM has a significant influence on the Performance of the organization.

**H₃₀ₒ:** TQM has no significant influence on the Performance of the organization.
3.1.10 Link between KM and Performance

Martins & Meyer (2012) studied the behaviour component in the knowledge behaviour processes (learning, knowing, creating, sharing, transferring and applying knowledge) and the behavioural threats or enhancers. Through their empirical research they found that all these factors seem to have an impact on one another and could influence the knowledge retention strategy that should be implemented to promote knowledge retention. Further, they argue that taking all these factors into account, it might be possible to determine the extent to which the factors have an impact on possible knowledge loss. Once the inhibiting factors that would prevent knowledge retention have been identified, a knowledge retention strategy could be implemented with the intention of retaining critical tacit knowledge in the organization, thus ensuring organizational performance, effectiveness and competitive advantage. Hence the following hypothesis is proposed.

**H₃ₐ:** *KM has a significant influence on the Performance of the organization.*

**H₃ₒ:** *KM has no significant influence on the Performance of the organization.*

In addition to the above hypotheses the following moderating effects will be tested:

**H₃₂ₐ:** *OCB has significant influence on the Performance of the organization when TQM acts as the moderator.*

**H₃₂ₒ:** *OCB has no significant influence on the Performance of the organization when TQM acts as the moderator.*

**H₃₃ₐ:** *OCB has significant influence on the Performance of the organization when KM acts as the moderator.*

**H₃₃ₒ:** *OCB has no significant influence on the Performance of the organization when KM acts as the moderator.*
3.1.11 Hypothetical research model – Main effect and Interaction effect of OCB dimensions on PERF

In addition to the main effect caused by the individual dimensions of OCB, there could be a possibility of interaction effect of the dimensions of OCB on performance of the organization. To study this influence, the following hypothesis for formulated.

![Hypothetical Research Model OCB-PERF](image)

**Figure 3.5:** Hypothetical Research Model OCB-PERF

**H₃₄ᵃ:** Altruism has a significant influence on performance of the organization.

**H₃₄ₒ:** Altruism has no significant influence on performance of the organization.

**H₃₅ᵃ:** Courtesy has a significant influence on performance of the organization.

**H₃₅ₒ:** Courtesy has no significant influence on performance of the organization.

**H₃₆ᵃ:** Sportsmanship has a significant influence on performance of the organization.

**H₃₆ₒ:** Sportsmanship has no significant influence on performance of the organization.
H₃₇ₐ: Conscientiousness has a significant influence on performance of the organization.

H₃₇₀: Conscientiousness has no significant influence on performance of the organization.

H₃₈ₐ: Civic virtue has a significant influence on performance of the organization.

H₃₈₀: Civic virtue has no significant influence on performance of the organization.

H₃₉ₐ: Interaction of the dimensions of OCB has a significant influence on the performance of the organization.

H₃₉₀: Interaction of the dimensions of OCB has a significant influence on the performance of the organization.