Chapter II
LITERATURE REVIEW

This chapter presents a detailed explanation of the research constructs and review undertaken so as to identify the research gap which would lead to the problem statement. This research deals with the dynamics of four distinct constructs namely, Organizational Citizenship Behaviour (OCB), Total Quality Management (TQM), Knowledge Management (KM), and Overall Performance of an Organization (PERF). These constructs are dealt separately during the literature review process.

2.1. Organizational Citizenship Behaviour (OCB)

The history of OCB spans back to over three decades and has its origin from social exchange theory (Blau, 1964). OCB has today developed into an indivisible component of HRM and researchers have explored the concept in-depth and found its suitability in the context of both production and service oriented organizations.

OCB is characterized as extra-role behaviours rather than defined roles and responsibilities of the employees in an organization (Organ, 1990; Tepper et al., 2001; and Jha, 2014). Many researchers explain as a “pro-social” this behaviour (Puffer, 1987; Karriker and Williams, 2009). Organizational citizenship was defined by Organ (1988, p. 4) as “individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization.” Based on this definition, Organ identified five categories of OCB: altruism, conscientiousness, sportsmanship, courtesy, and civic virtue. Thus, it can be said that OCB is characterized by the individual’s willingness to voluntarily meet and exceed expectations. These individuals have the desire to demonstrate such behaviour despite knowing that the extra effort will not be rewarded. In studying OCB, researchers have
primarily concentrated on its relationship with individual and organizational performance (Bolino et al., 2002). Cohen and Vigoda (2000), have identified several positive effects of OCB for an organization which include improved productivity, efficiency, and effectiveness and allocation of resources. Because of their orientation toward performance and existence as social entities, organizations should generally promote citizenship behaviour among their employees (Miao, 2011).

Positive employee behaviour that supports the social and psychological fabric of the organization is known as organizational citizenship behaviour (OCB), and has been extensively investigated (Whiting, Podsakoff & Blume, 2009). OCB is important for organizations to function effectively, because it influences several individual-level (e.g., employee performance and reward allocation decisions) and organizational-level factors (e.g., productivity, efficiency, costs, customer satisfaction). Owing to globalization, the workforce is becoming increasingly multicultural. Therefore OCB dimensions are now compared even across cultural groups.

Organizational citizenship behaviours become important since they facilitate the accomplishment of organizational goals and enhance organizational performance (Allen & Rush, 1998). Empirical research has shown that OCBs benefit the organizations in many ways such as customer satisfaction, quality and quantity of the service or product, sales performance, customer complaints, and revenue (Podsakoff et al., 1990). OCB might enhance both co-worker and managerial productivity (Podsakoff et al., 1990). OCBs may also free up resources for more productive purposes and reduce the need to devote scarce resources to purely maintenance functions. Moreover, OCBs may serve as effective means of coordination activities between team members and across work groups. OCBs may also enhance the organization’s ability to attract and retain the best people by making it a more attractive place to work. Additionally, OCBs may enhance the
stability of organizational performance by reducing variability. Furthermore, OCBs may improve an organization’s ability to adapt to environmental changes. Lastly, OCBs may enhance organizational effectiveness by creating social capital (Podsakoff et al., 1990).

Since the introduction of the term “organizational citizenship behaviour” by Bateman and Organ (1983), researchers have identified almost thirty different forms of OCB (Podsakoff, et al., 2000). In spite of the fact that OCB is a relatively recent concept, there have been several iterations in terms of definitions over the past 20 years (Hoffman, et al., 2007).

The purpose of this literature review is to explore the role of OCB in human development and its contribution to the overall performance of the organization. So, the different streams of research in OCB has been reviewed in brief and presented in the Table 2.1.

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Broad areas</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fok et al., (2000)</td>
<td>Job enrichment, TQM</td>
<td>Personality characteristics, and especially growth needs strength and organizational citizenship behaviour (OCB), are related to preferences for enriched jobs of the type associated with the total quality environment</td>
</tr>
<tr>
<td>Bienstock et al., (2003)</td>
<td>Employee perceptions</td>
<td>Employee perceptions on how they are treated by the service organizations are positively related to OCB.</td>
</tr>
<tr>
<td>Comeau, &amp; Griffith, R.L., (2005)</td>
<td>Task-interdependence and goal- interdependence.</td>
<td>Strong main effect of task interdependence, and goal interdependence, and also interaction effect of task and goal interdependence on OCB.</td>
</tr>
<tr>
<td>Authors</td>
<td>Topic</td>
<td>Findings</td>
</tr>
<tr>
<td>-------------------------</td>
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<td>--------------------------------------------------------------------------</td>
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<tr>
<td>González &amp; Garazo (2006)</td>
<td>Job satisfaction</td>
<td>Managers must use service communicative leadership and service encounter practices to influence directly employee OCB employee job satisfaction.</td>
</tr>
<tr>
<td>Lara &amp; Rodríguez (2007)</td>
<td>Attitudinal environment</td>
<td>Positive relationship between attitude toward boss’s performance and OCB.</td>
</tr>
<tr>
<td>Foote &amp; Tang (2008)</td>
<td>Organizational support</td>
<td>Management efforts devoted to enhance the perception and reality of organizational support to employees may offer positive outcomes in terms of higher employee affective commitment towards the parent company.</td>
</tr>
<tr>
<td>Liu (2009)</td>
<td>Knowledge sharing and job attitudes.</td>
<td>Job involvement, job satisfaction and OCB are independent and positively related to employees’ knowledge sharing behaviour.</td>
</tr>
<tr>
<td>Erkutlu (2011)</td>
<td>Organizational culture &amp; Organizational justice.</td>
<td>A stronger relationship between interactional justice and OCB is established.</td>
</tr>
<tr>
<td>Seyed Javad (2012)</td>
<td>Marketing.</td>
<td>Internal marketing actions can have a direct, meaningful and positive effect on organizational citizenship behaviours.</td>
</tr>
<tr>
<td>Cun (2012)</td>
<td>Job satisfaction</td>
<td>It was found Public service motivation and Job satisfaction are correlated</td>
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</tbody>
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### Literature Review

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Topic</th>
<th>Outcome</th>
</tr>
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<tbody>
<tr>
<td>Cohen (2012)</td>
<td>Social exchange theory</td>
<td>Group characteristics significantly affect the OCB.</td>
</tr>
<tr>
<td>Zacher &amp; Jimmieson (2013)</td>
<td>Sales productivity</td>
<td>Transformational leadership was positively related to OCB and sales productivity.</td>
</tr>
<tr>
<td>Jackson, E.M., 2012</td>
<td>Leader reward behaviour</td>
<td>Leader reward behaviour is positively related to higher task performance and organizational citizenship behaviour, and fewer intentions to turnover.</td>
</tr>
</tbody>
</table>

Smith et al. (1983) and Bateman and Organ (1983) had given basically two dimensions of employee behaviour: general compliance (doing what a good employee should do) and altruism (helping specific others). Williams & Anderson (1991) and Van Dyne et al., (1995) gave some more dimensions of OCB under the two broad classifications. The first one is directed at specific individuals in the organisation, such as courtesy and altruism (OCB-I), while the second refers to behaviour that is concerned with benefiting the organisation as a whole, such as conscientiousness, sportsmanship and civic virtue (OCB-O). Although these dimensions are more specific and may be a fruitful way of elaborating OCB research, these two dimensions of OCB could not be clearly distinguished from each other empirically.

One possible definition for altruism is provided by Kolm (2000), according to whom it “is the preference for the good of some people in itself, and it also denotes acting in favour of this good”. The sentiments that give rise to altruism are many, such as empathy, compassion, pity, sympathy or affection. Sense of justice and fairness can also determine the phenomenon. Baumeister and Leary (1995) argue that human beings have an inborn need to belong to a group as a mechanism of self-preservation that developed further with natural selection. Therefore, the sentiments that determine altruism can be understood as a
way through which individuals establish themselves as members of the group. In addition, the appearance of pure altruism and the resulting interdependence of utilities may be due to the direct social interaction between individuals, which can imply more or fewer transfers or gifts to a given group.

Altruism is a view which holds that one’s actions ought to further the interests or good of other people. Essential in many definitions of altruism is that the concern for others is to be unselfish – that is, that acting for others is not motivated by the potential benefits for the actor (Margolis, 1982). An altruistic person is one who prioritizes the interest of others, not of him/herself; i.e. concern is directed toward others for their own sake (Healy, 2004). Thus, a person acting for others for selfish reasons cannot be considered altruistic. According to this definition, altruism is characterized by a sense of duty, or a will to do good to others. Therefore, if we define an act as altruistic on the grounds of deontological ethics, the essential thing is the intention of the actor. Personal preferences are not characteristic of altruistic behaviour. Furthermore, some research has also suggested that an altruistic act can even reduce the well-being of the actor (Monroe, 1996). Yet this feature of self-sacrifice is by no means automatically a part of altruism, even though it is often over-emphasized, especially when altruism is discussed in the media. It must also be pointed out that not all self-sacrifice is altruism; these two concepts must not be taken as synonymous. According to Blum (1998), the view that altruism and self-sacrifice are often tied to each other may stem from a false belief that every situation presents us with the choice between fostering our own good and fostering the good of others.

The definition of altruism raises some philosophical considerations, as what actually defines the goodness of an act can be debated. Thus, an altruistic person should not only be concerned for the good of others, but also figure out what that “good” is. As an erring human being, it is quite possible for the actor, despite all his or her good intentions, to
actually do more harm than good to others (Mitschow, 2000). Is an act aimed at contributing to the well-being of others, but failing to produce any good, still an altruistic act? This leads also to the discussion about paternalism in a sense that it can be speculated whether the idea of altruism undermines the moral autonomy of human beings (Crossley, 1999). Even though these are interesting questions, they go beyond the scope of this paper. Thus, we take the unselfish intention to contribute the well-being of others as the starting point of our definition to altruism without further deliberating how the goodness of the act should be defined.

Despite the frequent modification, OCB has been oriented towards five basic dimensions since its inception (Bell and Menguc, 2002; Organ, 1988). Altruism is the discretionary behaviours motivating employees to help other employees’ work related problems, whereas, courtesy is also discretionary behaviours not to create work-related problems with others (Jung and Hong, 2008). Conscientiousness indicates the discretionary extra-role behaviours that exceed the requirements of the task, job, and work ethics (MacKenzie et al., 1993). Sportsmanship of employees is to tolerate circumstances unexpected or less preferable without complaining. Lastly, civic virtue is the behaviour to participate organizational practices with the concern of the life of the company (Podsakoff et al., 1990). In the context of knowledge intensive service organizations, these five dimensions are very relevant, and hence they have been chosen for the study.

Summarizing of the dimensions of OCB lead to the following theoretical model (Figure 2.1)
2.1.1. Altruism (ALT)

Taehee et al., (2011) opine that altruism is the most frequently studied form in the OCB literature because of its strong impact on organizational functioning. Altruism in the context of an organization has been developing in terms of the definition from time to time. It is about taking the initiative to help members of an organization resolve problems and helping each other. It need not be confined only to fellow workmen; it can be extended to the customers, vendors, suppliers and any stake holder (Turnipseed & Rassuli, 2005; Lähdesmäki & Takala, 2012; and Chiang & Hsieh, 2012). Altruism is usually interpreted as an individual’s willingness of an employee to help a co-worker without concerning for own interests (Organ, 1988). Additionally, altruism involves going above and beyond job requirements to help others with whom an individual comes into contact (Organ et al., 2006). Thus, altruistic behaviour may include helping a colleague who has been absent from work, helping others who have heavy workloads,
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being mindful of how one’s own behaviour affects others’ jobs, and providing help and support to new employees represent clear indications of an employee’s interest for its work environment (Underwood et al., 1977). Given the nature of altruism, it is argued that altruism makes the work system more efficient because slack time may be allocated to urgent tasks (Yen & Neihoff, 2004).

The context of this research is to find the influence of altruism on overall performance of the service organization. There are many researchers who have attempted to relate these two constructs. Altruistic behaviour plays an important role in determining organizational performance and the research on altruism has paid much attention to factors affecting an individual’s willingness to engage in altruistic behaviour. Ryan (2001) found that an employee’s level of moral reasoning was a significant predictor of his or her altruistic behaviour. Van Dyne et al. (2008) discovered that part-time work status negatively affected employees’ willingness to exhibit altruistic behaviour. Drawing upon the social exchange theory that an employee’s altruistic behaviour was determined by how much OCB the employee has received from co-workers (Noblet et al., 2006) determined that job control and social support were significant predictors of altruistic behaviour. Tang, et al., (2008) established that both intrinsic and extrinsic motives contributed significantly to altruistic behaviour. Glomb et al. (2011) revealed that negative emotion resulted in altruism, which in turn created positive moods leading towards better performance. So, as gathered from the research literature there is a bearing of altruism on performance.

2.1.2. Courtesy (COU)

Courtesy is to avoid work problems, remind and inform other co-workers in advance (Ravichandran & Gilmore, 2007; Chou & Pearson, 2012). Courtesy has several dimensions to it such as the politeness, respect and propriety shown by the service,
usually contact staff, in dealing with the customer and his or her property. This includes the ability of staff to be unobtrusive and un-interfering when appropriate (Suliman & Al-Obaidly, 2013). Courtesy means treating others with respect. According to (González et al., 2006) courtesy also includes preventing problems deriving from the work relationship such as encouraging other co-workers when they are discouraged about their professional development. Courtesy or complaisance is also defined as a set of behaviours which help to prevent tensions and other similar problems in the workplace (Seyed Javadin et al., 2012). Courtesy has been defined as discretionary behaviours that aim at preventing work-related conflicts with others (Law et al., 2005). This dimension is a form of helping behaviour, but one that works to prevent problems from arising. It also includes the word’s literal definition of being polite and considerate of others (Organ et al., 2006). Examples of courteous behaviours are asking fellow employees if they would like a cup of coffee while you are getting one for yourself, making extra copies of the meeting agenda for your teammates, and giving a colleague ample notice when you alter something that will affect them.

Researchers have concluded through their extensive study in several organizations that providing early notification to another department for the completion of a certain part of a project is considered coordination in a teamwork setting (Dickinson and McIntyre, 1997), but this same behaviour may be considered a courtesy in an individual setting (Organ, 1988), thus courtesy contributes to the performance. When the employees in the organization treat each other with respect, they would be comfortable working with each other. In addition, it would make things easier for them to work in a team. This supports the dimension of learning organization which is team learning. Several researchers have identified the importance of team learning in the enhancement of organizational performance.
2.1.3. **Sportsmanship (SPT)**

Obeying organizational regulations, tolerating imperfect situations without complaint and refraining from actions which may lead to unfavourable tension at the workplace and maintaining synergistic atmosphere within the organization against any adverse incidents (Witt & Ferris, 2003; Arnold, 2007; and Chou & Pearson, 2012). Sportsmanship is about accepting less than ideal circumstances, for example petty grievances, real or imagined slights (González et al., 2006). Sportsmanship of employees is to tolerate circumstances unexpected or less preferable without complaining (Jung & Hong, 2008). Seyed Javadin (2012) opines that sportsmanship includes such traits as: the ability to tolerate criticism, the flare not to complain frivolously, and the wisdom to promote meritorious individuals. Sportsmanship is basically derived from the team games where a collective effort is required to succeed and the same is applicable to the organizations as ultimately it is the coordination between the individuals that makes the teams in the organization to excel may it be a marketing team or an R & D team. The reason for this is, sportsmanship gives the employees the ability to put aside petty grievances and divert attention towards quality work with the corporate objectives in the focus. It needs a special effort from the employee to tolerate less than ideal circumstances without complaining, not offended when others do not follow their suggestion, willing to sacrifice their personal interest for the good of the work-group. Empirical research that has included this construct in the context of other forms of citizenship behaviour has shown it to be distinct from them, and to have somewhat different antecedents and consequences (MacKenzie, et al., 1993). It is also observed that sportsmanship is a form of citizenship behaviour that received much less attention in the literature.

Wat and Shaffer (2005) found that the competence dimension of psychological empowerment was significantly related to both conscientiousness and sportsmanship. The
influence of competence on conscientiousness was explained by the fact that individuals who believe they have capability to achieve goals do what is required to achieve them. It is unlikely that those who lack self-confidence will go beyond minimum role requirements. Organ (1990) opines that sportsmanship is a form of citizenship behaviour that has received much less attention in the literature in comparison to the other dimensions of OCB. It refers to the willingness to tolerate the inevitable inconveniences and impositions of work without complaining as mentioned before, however, according to Organ this definition seems somewhat narrower than the label of this construct would imply. For example, “good sports” are people who not only do not complain when they are inconvenienced by others, but also maintain a positive attitude even when things do not go their way, are not offended when others do not follow their suggestions, are willing to sacrifice their personal interest for the good of the work group, and do not take the rejection of their ideas personally. Empirical research has included this construct in the context of other forms of citizenship behaviour and has shown it to be distinct from them, and to have somewhat different antecedents and consequences but invariably influence the performance of the organization (MacKenzie et al., 1993).

2.1.4. Conscientiousness (CON)

Conscientiousness involves employees going beyond the minimum requirements of the organization. This is extra-role behaviour, meaning that it involves engaging in task-related behaviours at a level that is far beyond minimal requirement (MacKenzie et al., 1993). This factor was initially labelled as ‘generalized compliance’ and later changed ‘conscientiousness’, because it did not have an immediate effect of helping a specific person, but a more impersonal, generalized to the group effect. Conscientiousness is defined in various ways (Roberts, Chernyshenko, Stark & Goldberg, 2005). According to Roberts et al. (2005) there is little agreement about the specific facets that make up each
of the Big Five traits. Roberts et al. (2005) indicated that a possible reason for this inconsistency may be the relative newness of the Big Five model of personality. Mount and Barrick (1995) attempted to define conscientiousness by separating it into achievement and dependability. Achievement is the ability of an employee to work hard and meet goals, whereas dependability is the interpersonal component of conscientiousness that involves responsibility and dutifulness. Kaplan and Saccuzzo (2001) defined conscientiousness as the degree to which an individual perseveres, is responsible and is organised. Conscientiousness more than complying with organizational rules and going beyond minimum requirements through hard work (Hechanova, 2006; Chiang & Jang, 2008; Chou & Pearson, 2012; and Zacher & Jimmieson, 2013). Conscientiousness is the dedication to the job and desire to exceed formal requirements in aspects such as, punctuality or conservation of resources, for example working long days, voluntarily doing things besides duties, keeping the organization’s rules and never wasting work time (González et al., 2006). Zacher & Jimmieson, (2013) have found that conscientiousness that does not provide immediate aid to any one specific person, but rather is indirectly helpful to others involved in the system. The behaviour (e.g., punctuality, not wasting time) seems to represent something akin to compliance with internalized norms defining what a good employee ought to do. So, this behaviour of employees would definitely lead to the better performance of the organization.

2.1.5. Civic Virtue (CVI)

High level interest and loyalty to the organization and remaining attentive and proactive when participating in organizational activities (Jin & Drozdenko, 2010; Chou & Pearson, 2012; and Zacher & Jimmieson, 2013). Civic virtue is responsibly participating in the life of the firm for example, attending meetings/functions that are not required but that help the firm, keeping up with changes in the organization, taking the initiative to recommend
how procedures can be improved. CVI is the responsible, constructive involvement in the political process of the organization, including not just expressing opinions but reading one’s mail, attending meetings, and keeping abreast of larger issues involving the organization (Chou & Pearson, 2012). The CVI refers to the macro level of interest or commitment to the organization as a whole. It is demonstrated by the willing participation in the governance of the organization. It is about expressing openly the right strategy that would elevate the operational standards of the organization. It may even include the analysing of the strengths, weaknesses, opportunities, and challenges of the organization by the employee so that it may sustain the business endeavour. To put in a nutshell, it could be the expression of the employee as a part of the whole organization thus responsible and committed to the actions which he/she undertakes. All these actions from the employee are positive towards the growth of the organization in terms of its financial or non-financial performance or even operational performance.

2.2. Knowledge Management (KM)

According to Knowledge-based-theory (KBT) knowledge is the primary determinant of sustainable growth and competitive advantage (Grant, 1996). Contemporary management considers KM as a strategic resource in gaining of the competitive advantage (CMA) as found by several researchers (Teece, 2004 and Gavrilova & Andreeva, 2012). Knowledge required for the success of the organization resides both in the internal and external sources and researchers have found that the following KM practices play an important role in the effective use of the knowledge for the organizational benefit: knowledge diagnosing (KD), knowledge acquisition (KA), knowledge generation (KG), knowledge sharing (KS), knowledge storing (KST), knowledge application (KAP) (Lev, 2001; Elliott and Jacobson, 2002; Bennet and Bennet, 2003; Kaplan and Norton, 2004; Vera-Munoz et al., 2006; Lee and Lai, 2007; Huang, 2009; Gonzalez-Padron et al., 2010; Witherspoon et
al., 2013). The KM has grown today into a discipline by itself and has several components which have been discussed in the following sections in the context of this research.

KM is relatively a newer concept in comparison to the TQM, however, owing to the impact of knowledge economy, it has gained importance and applicability since the past several decades. A paradigm shift in all business sectors has been to accept ‘knowledge’ as a source of sustainable advantage and thereby making knowledge become the primary source of economic value along with information for any organization. Managing and organizing this knowledge and making it available wherever and whenever it is needed, thus, has now become the focal point of all KM experts.

The KM is basically the continuum of data and information. Data is a collection of raw facts. Therefore, unless there is an established relationship between the pieces of data, it does not serve any purpose. Davenport and Prusak (1998) describe data as structured records of transactions; information as data with a difference. Data is content that is directly observable or verifiable; information is content that represents analysed data (Dalkir, 2005).

Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experience and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routine, processes, practices, and norms (Davenport and Prusak, 1998).

Knowledge is the full utilisation of information and data, coupled with the potential of people’s skills, competencies, ideas, intuitions, commitments, and motivations. A holistic view considers knowledge to be present in ideas, judgments, talents, root causes,
relationships, perspectives and concepts. Knowledge is stored in the individual brain or encoded in organizational processes, documents, products, services, facilities and systems (KM Forum Archives, 1996).

Knowledge has strong experiential and reflective elements (Clark, 2004) that distinguish it from information in a given context. Having knowledge implies that it can be exercised to solve a problem, whereas having information does not carry the same connotation. While data, information and knowledge can all be viewed as assets of an organisation, knowledge provides a higher level of meaning about data and information. It conveys meaning, and hence, tends to be much more valuable.

Knowledge can also be defined as an individual’s experience and understanding (Marwick, 2001). Knowledge is commonly distinguished from data and information. Data represent observations or facts out of context, and therefore not directly meaningful. Information results from placing data within some meaningful context, often in the form of a message. According to Zack (1999), Knowledge is that which one comes to believe and value based on the meaningfully organized accumulation of information (messages) through experience, communication or inference. Data can be defined as streams of raw facts representing events occurring in organization (Laudon and Laudon, 2004). Information results from placing the data within some meaningful context. Knowledge is the process of translating information and past experience including believed and valued into a meaningful set of relationships which are understood and applied by an individual, in the words of Awad and Ghaziri (2004).

In the words of Davenport and Prusak (1998), all organizations need data and some industries are heavily dependent on it. Banks, insurance companies, utilities and government agencies are obvious examples. Software companies rely on these primary
organizations for their projects; so they are also, evidently, dependent on data. Record keeping is at the heart of these “data cultures” and effective data management is essential to their success. Information moves around in these organizations through hard and soft networks like mails: snail-mail and e-mail. Knowledge derives from information and information from data. So, if data is found in records and transactions, and information as messages, knowledge is obtained from groups of knowers or sometimes in organizational routines. It is delivered through structured media such as books and documents, and person to person contacts ranging from conversations to apprenticeship. Clearly, this shows the association between data, information and knowledge and helps understand the importance of knowledge for today’s business working scenarios.

There are many varied definitions of KM. Only those definitions close to application in the context of engineering education have been highlighted here. Beckman (1999) asserts that KM concerns the formalization of and access to experience, knowledge, and expertise that create new capabilities, enable superior performance, encourage innovation, and enhance customer value. Coleman (1999) defines KM as an umbrella term for a wide variety of interdependent and interlocking functions, including knowledge creation; knowledge valuation and metrics; knowledge mapping and indexing; knowledge transport, storage & distribution; and knowledge sharing.

“Knowledge Management is the discipline of enabling individuals, teams and entire organisations to collectively and systematically create, share and apply knowledge, to better achieve their objectives” as quoted by Young (2011).

Turban and Aronson (2001) describe KM as a process that helps organisations identify, select, organize, disseminate, and transfer important information and expertise that are
part of the organisational memory that typically reside within the organisation in an unstructured manner.

Wiig (1997) clearly states that “knowledge management is the systematic, explicit, and deliberate building, renewal and application of knowledge to maximize an enterprise's knowledge related effectiveness and returns from its knowledge assets.” Further, Knowledge Management, Skryme (2011) opines, is the explicit and systematic management of vital knowledge and its associated processes of creation, organization, diffusion, use and exploitation. Another definition by Becerra-Fernandez and Sabherwal (2010) is that KM simply means “doing what is needed to get the most out of knowledge resources.”

KM is managing the corporation’s knowledge through a systematically and organizationally specified process for acquiring, organizing, sustaining, applying, sharing and renewing both the tacit and explicit knowledge of employees to enhance organizational performance and create value (Davenport and Prusak, 1998). Zuckerman & Buell (1998), define KM as the strategic application of collective company knowledge and know-how to build profits and market share. Knowledge assets viz., ideas, concepts, and know-how are created through computerized collection, storage, sharing and linking of corporate knowledge pools. Advanced technologies make it possible to mine the corporate mind. Turban & Aronson (2001), describe KM as a process that helps organisations identify, select, organize, disseminate, and transfer important information and expertise that are part of the organisational memory that typically reside within the organisation in an unstructured manner. Knowledge is the full utilisation of information and data, coupled with the potential of people’s skills, competencies, ideas, intuitions, commitments, and motivations. A holistic view considers knowledge to be present in ideas, judgements, talents, root causes, relationships, perspectives and concepts.
The broad areas of research in KM are given in Table 2.2. The dimensions of KM are context specific, nevertheless, the basic model of KM which is applicable universally and particularly in a knowledge intensive service organization are (Aboyassin, 2011): Knowledge diagnosis, Knowledge acquisition, Knowledge generation, Knowledge sharing, Knowledge storing, and Knowledge application (Figure 2.2).

**Table 2.2: Research in Knowledge Management**

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Broad areas</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geisler (2007)</td>
<td>Knowledge diagnosis</td>
<td>Found that identifying the right kind of knowledge required in an organization is the starting phase which is crucial too.</td>
</tr>
<tr>
<td>Bergeron (2003)</td>
<td>Knowledge acquisition</td>
<td>Observed that knowledge has to be either created or gathered by knowledge workers in a systematic way for the benefit of the organization.</td>
</tr>
<tr>
<td>Wiig (1993); Nonaka and Takeuchi (1995)</td>
<td>Knowledge generation</td>
<td>Devised a systematic method to survey &amp; categorize knowledge, analyse knowledge &amp; related activities, and elicit, codify, &amp; organize knowledge so it leads to the continuous knowledge generation.</td>
</tr>
<tr>
<td>Bergeron, B. (2003)</td>
<td>Knowledge sharing</td>
<td>Transfer or communication of knowledge from one person or place to another in a structured manner is necessary for knowledge management.</td>
</tr>
<tr>
<td>DeLong, 2004</td>
<td>Knowledge storing</td>
<td>Keeping possession of knowledge, not losing, continuing to have, practicing or recognizing knowledge is possible through a systematic process.</td>
</tr>
<tr>
<td>Simon (2006), Park &amp; Kim (2006)</td>
<td>Knowledge application</td>
<td>Applying the knowledge through the KMS can yield results much superior compared to the normal mode.</td>
</tr>
</tbody>
</table>
This resulted in the hypothetical research model given in Figure 2.2.

![Theoretical Model of KM](image)

**Figure 2.2:** The Theoretical Model of KM
(Wiig, 1993; Nonaka & Takeuchi, 1995; Bergeron, 2003; DeLong, 2004; Simon, 2006; Park & Kim, 2006; Geisler, 2007; Aboyassin, 2011)

### 2.2.1. Knowledge Diagnosing (KD)

To make the knowledge a strategic asset or contribute to the organizational performance the right kind of knowledge has to be filtered from the available database as indicated by experts in the field. The KD is the starting point for the Knowledge creation and application which is the ultimate aim of KM (Wu, Senoo, Magnier-Watanabe, 2010). Knowledge diagnosis has its root through the definition given by Alderfer (cited in Wu et al, 2010), according to which, it is a process which involves collecting of valid data and information about the human experiences and feeding it back to the organization collectively so that it would improve the performance. The company has to identify the required knowledge and connect it with the corporate objectives. It has to evaluate the efficiency of the existing knowledge in the company so that it can identify the type of knowledge that is required. There is a need to have a clear understanding about the knowledge possessed by the company and the knowledge which it intends to have. Many leading organizations have a separate department whose role is to diagnose knowledge
and report it to the management. Periodic tests are conducted to study the existing knowledge in these organizations.

**2.2.2. Knowledge Acquisition (KA)**

Knowledge required for the growth of the organization may be available inside the organization or even outside the organization. Knowledge may reside in the minds of the individuals or may exist collectively in groups. Transferring the right knowledge to the right employees at the right time in the right form is required for organizational growth and sustainability (Bock et al., 2005; Liao et al., 2009 and Pacharapha & Raetham, 2012). Literature indicates that an individual or a group can acquire knowledge by learning from others, learning from knowledge repositories, and learning from their own experiences (Ryu et al., 2005). These points converge to the conclusion that KA has to be from various internal and external sources. Training on KA will be very useful as there are systematic methods to acquire knowledge from various sources. Recruitment of the talented employees who have a proved track record of being knowledge workers is essential for the success of KA. As KA has to be considered in the context of entirety in terms of the organization, retaining the talented employees may also help as the knowledge acquired at the organizational level would be rich and useful. The ICT infrastructure of the company plays an important role as KA is highly a technology intensive process. Knowledge

**2.2.3. Knowledge Generation (KG)**

A group of researchers have found that the knowledge useful to an organization can be within the organization or outside the organization so development of networking with all its stakeholders and working continuously is essential for the generation of knowledge (Rindfleisch and Moorman, 2001 and Griese et al., 2012). The process may include study
of the new markets, newer approaches in doing business, organizing the business processes for optimum results, and the right application of the technologies to make the processes efficient and effective. In the knowledge driven world of today Innovation is the key driver of business success and working in teams is the quintessential element of the system as a whole. The researchers in the field have suggested a number of alternatives for KG (Griese et al., 2012). The company may have to exploit the ICT to enable the people to generate new knowledge. The company may have to develop their own mechanisms for converting the tacit knowledge residing in the brains of the employees into the explicit form so that it is available for the benefit of all the employees. Competence development is the basic aim of knowledge generation, which will eventually become the strategic resource of the organization. The firm has to make constant efforts to leverage the existing knowledge to generate new knowledge through various means. Knowledge generation demands a set of skills from the employees and it may include the cognitive activities too because knowledge generation takes place in the minds of the people. A group of researchers have narrowed down to two important aspects of knowledge generation: knowledge integration and knowledge sharing (De Luca and Atuahene-Gima, 2007; Haas & Hansen, 2007). While knowledge integration deals with combining the discrete knowledge from various sources, knowledge sharing deals with the dissemination of the same throughout the organization.

2.2.4. Knowledge Sharing (KS)

The continuum of data, information, and knowledge transfer from individual to the organizational knowledge and vice-versa is the essential aspect of knowledge KS (Tohidinia & Mosakhani, 2010). This makes it imperative that KS can be immensely benefited by the Information & Communication Technology (ICT). Nevertheless, the tools is as effective as the ability of the user, and also, the behavioural aspects of the
employees cannot be studied unless the employees are willing to share knowledge, so no technology can be of any help if the employees do not share knowledge (Hedgebeth, 2007; Tohidinia and Mosakhani, 2012). This makes it imperative that the company has to involve employees in decision making processes, provide the right technology to assimilate and disseminate knowledge, recognizes the knowledgeable employees, make knowledge sharing a part of the appraisal system, promote movement of employees across the department to share knowledge, regularly exchange ideas and share best practices, and give incentives for knowledge sharing. Managers have to provide a congenial climate for knowledge sharing because the lack of an aspiring culture to communicate and explore new ideas may become a major barrier to knowledge sharing (Van Den Hooff & Van Weenen, 2004).

2.2.5. Knowledge Storing (KST)

The structure, culture, and ecology are the essentials of the building of organizational memory which keeps growing continuously (Oliver, 2000). People, social networks, and computer-based repositories are the key components of knowledge storing. Organizational memory consists of purposive knowledge retention devices that collect, store and provide access to the knowledge workers to the knowledge they require as and when they need it. The company need to device systems which store and document the knowledge using suitable taxonomy. They need to develop methods to convert the tacit knowledge of the employees into explicit knowledge. Communicating with the system that provides means to elicit information as well as feed new information into it should be in a user friendly way so that all the employees can make use of it. Training on these tools particularly the ICT may be very helpful. The KST is not just about identifying the right kind of knowledge and storing it but emphasis should be in the ways that it has been adapted, applied, and disseminated. The idea is based on the observation that carefully
documented study can provide excellent guidelines for policy making and incorporating the changing needs of the organization (Sukula, 2006).

2.2.6. **Knowledge Application (KAP)**

The end result of the knowledge management is the application of the knowledge for the organizational benefit (Ordaz et al., 2004). Any KM process must end with Competitiveness of the employees and Innovation for which the KAP is the most important component (Sukula, 2006). The KAP is the strategic application of collective company knowledge and know-how to build profits and market share. Knowledge assets viz., ideas, concepts, and know-how are created through computerized collection, storage, sharing and linking of corporate knowledge pools and these assets are exploited to bring innovation in the products/services (Sveiby and Simons, 2002). The systems and procedures of the company should be flexible so that modifications can be incorporated as and when newer ideas get generated. A stand-alone department may be established to check and facilitate knowledge application. Management must be supportive of the application of newer knowledge. Management must ensure that employees are able to process the information easily so that they can find an application and relevance to it.

While the issues of the knowledge application in enterprise information systems have received the deserved attention of researchers and practitioners, the gap of knowledge application in several service industries is on the rise (Sukula, 2006). Newer methods are always in search for making the KAP more effective and the field is ever growing.

2.3. **Total Quality Management (TQM)**

Feigenbaum originated the concept of “total quality control” (TQC) in 1956. His seminal article on TQC was first published in 1957 and was followed by his book in 1961 (Total Quality Control: Engineering and Management). Feigenbaum emphasized three critical
areas for quality; quality control participation by all divisions of the enterprise, quality control participation by all employees and the integration of quality control. TQM currently, provides the rational structure and scientific tools for the improvement of quality. (Reed et al., 2000) provided an excellent account of the theoretical underpinning of TQM.) TQM programs have become a key focus for many organizations, and are likely to remain a key issue for many companies in the new century (Schalkwyk, 1998). Mandel et al. (2000) noted the significance of quality as a factor of international competitiveness.

Exploring the TQM literature numerous studies were revealed. These studies examined the TQM factors implementation, the results of adopting them and their relationships. TQM factors, as they have been detected in recent studies are the following: leadership, strategic quality planning, employee management and involvement, supplier management, customer focus, process management, continuous improvement, information and analysis and knowledge and education. However, quality management is not achieved only through adopting the above mentioned factors, but it is supported by quality management tools and techniques, such as flow chart, relations diagram, scatter diagram, control charts, Paretto analysis, quality function deployment, design of experiments and so on (Sila and Ebrahimpour, 2005; Tari, 2005).

Sila and Ebrahimpour (2005) explored the relationships among TQM factors such as leadership, strategic planning, customer focus, information and analysis, human resource management, process management, supplier management and the results from adopting such practices such as human resource results, customer results, organizational effectiveness and financial and market results. They identified leadership and information and analysis as the two factors that act as the foundations on achieving favourable business results. These two factors are also considered in the context of this research. The
effective implementation of practices related to these factors is likely to result in improved performance. Leadership had both direct and indirect effects on business results. However, information and analysis had only an indirect effect on business results that was mediated through human resource management and process management. Thus, other than leadership, process management was the only factor that had a direct effect on business results.

The TQM has been linked to customer satisfaction and competitive advantage. Yang (2006) found that TQM practices including quality management, process management, employee empowerment and teamwork, customer satisfaction management, quality goal setting and measurement, supplier’s cooperation and quality tools training have positive effects on customer satisfaction and that the adoption of TQM principles is an effective means by which companies can gain competitive advantage. The implementation of the TQM practices also helped companies to improve their image, employee’s satisfaction and quality awareness.

TQM has been described as a new way of thinking about the management of organizations, a comprehensive way to improve total organizational performance and quality, an alternative to ‘management by control’ and ultimately, as a paradigm shift (Spencer, 1994). Developing an organizational philosophy based on TQM is a long-term journey and its survival over time is more likely if four major issues are built into the organization: the emotional commitment of Chief Executive Officers is linked to the use of TQM philosophy; the management team has adequate understanding and knowledge about TQM; there are appropriate systems to stimulate, guide and direct TQM activities; and involvement and participation of employees (van der Wiele et al., 2001).
Mehra et al. (2001) conducted a literature review on TQM and suggested that businesses implementing TQM should focus on five elements. These elements are human resources (HRs), management structure, quality tools, supplier support, and customer orientation. After summarizing the literature on TQM, Mehra et al. (2001) concluded that the organizational emphasis in future will shift towards following four main areas for quality improvement: (1) customer focus; (2) process focus; (3) innovation focus; and (4) environmental focus. Mehra et al. (2001) particularly stressed the importance of customer focus and said that TQM itself is customer oriented. Authors emphasized the importance of the elements of customer loyalty and customer satisfaction in the area of customer focus. Stressing the need for using TQM to enhance customer focus, these authors stated that businesses must shift their focus toward customer satisfaction. Given that customer focus is heavily mentioned in the literature, Mehra et al. (2001) proposed that TQM of the future should be redefined to include customer focus. Hence, one can understand that TQM by definition is a customer-oriented philosophy, and customer focus is expected to occupy a predominant place in the future of TQM literature. These arguments find support from various scholars. Kaynak (2003) suggested further research is necessary on the relationship between TQM and customer relations/satisfaction. Hence, it is plausible that customer-focused organizations need catalytic agents like TQM to enhance customer focus and business performance.

Total quality management (TQM) is a holistic approach that seeks to integrate all organizational functions to focus on meeting customer needs and organizational objectives through the improvement of quality, productivity and competitiveness (Pfau, 1989). TQM philosophy emphasizes the role of internal and external customers and suppliers, and the involvement of employees in pursuit of continuous improvement (Chang, 2006). Despite some criticism, TQM has gained widespread acceptance in both
the academic and business communities (Chang, 2006). Extensive research focuses especially on the role of performance measurement in the context of TQM and in this research performance is the endogenous variable. Given that the implementation of TQM brings with it a significant organizational change, it is argued that a review and update of the organization’s performance measurement system is necessary when TQM implementation takes place (Chiu and Lin, 2004).

TQM integrates all functions and infrastructure of the business so that design, planning, production, distribution and field service are focused on maximizing customer satisfaction through continuous improvement (Dessler, 2003), and hence, contributes to the overall performance of the organization. TQM has now been in use since the past several decades and has grown in terms of its applicability as well as domain. There are several versions, frameworks, models, tools, techniques, and dimensions of TQM as it has grown into a full-fledged discipline of its own.

**Table 2.3: Research in Total Quality Management**

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Broad areas</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brah et al., (2002)</td>
<td>Performance management.</td>
<td>Found that TQM influences Performance. Also found that behavioural factors such as: Top management leadership, Customer focus, Human resources focus, and Quality focus.</td>
</tr>
<tr>
<td>Ho &amp; Fung, (1994)</td>
<td>Quality excellence model</td>
<td>Developed a model for quality excellence. Ten main factors were identified to guarantee the implementation of TQM success.</td>
</tr>
<tr>
<td>Pheng &amp; Ke-wei, (1996)</td>
<td>Quality management systems</td>
<td>Management systems which have worked well in the manufacturing sector can also be applied to construction.</td>
</tr>
<tr>
<td>Laszlo (1997)</td>
<td>Quality cost</td>
<td>Found that process based on cost analysis is a straightforward method to obtain and maintain management approval of a quality improvement initiative. Also showed that</td>
</tr>
</tbody>
</table>
quality improvement is a fiscally responsible way to serve the organization, as opposed to just complying with a set of external rules and regulations.

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Focus</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schalkwyk &amp; Van (1998)</td>
<td>Performance measurement.</td>
<td>Found that financial information neither focuses on the client’s needs nor on the company’s ability of meeting them. Guidelines on how performance measurement systems have evolved has been discussed.</td>
</tr>
<tr>
<td>Motwani (2001)</td>
<td>Performance management.</td>
<td>Identified seven critical factors and more than 45 performance measures of TQM. A possible sequence for implementation of these factors is then presented</td>
</tr>
</tbody>
</table>

Lam et al., (2012) have taken the six dimensions of TQM as considered by Malcolm Baldrige National Quality Award (MBNQA), which is one of the most prestigious quality awards worldwide which include: Leadership, Customer focus, Strategic planning, Human resource focus, Information and analysis, and process management. This model gives emphasis to strategic planning in comparison to other models of as this group of researchers opine that market-led strategic change (Piercy, 1992), better known as market focus (Brown, 1993), where companies align their internal processes to fit with the characteristics of the marketplace, can help companies achieve sustainable competitive advantage. The study by Lam and his group was to find the empirical evidence for the influence of TQM on market orientation and service quality, they found the MBNQA was very relevant. There is no universally accepted TQM framework (Yusof and Aspinwall, 2000), and different approaches coexist in the literature, including consultants-based frameworks (Deming, 1986; Crosby, 1980; Juran and Gryna, 1993). So, selecting a particular TQM model is mainly context based and there are several contenders to choose from.
TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) (Khanna et al., 2011), is the most widely used method in ranking the dimensions in management studies. Multiple criteria decision making (MCDM) is a very powerful tool widely used for dealing with unstructured problems containing multiple and potentially conflicting objectives (Lee and Eom, 1990) and one of the methods adopted in MCDM is TOPSIS. Further, Analytic Hierarchy Process (AHP) can be used to prioritize the relative importance of these dimensions as applicable to the knowledge intensive service organizations.

Among the models (Table 2.4) considered, TOPSIS and AHP indicates that the following dimensions may be chosen based on the ratings (Figure 2.3):

1. Customer management
2. Top management leadership
3. People management
4. Organizational learning
5. Process management
6. Continuous improvement
7. Quality information management
Table 2.4: Dimensions of TQM and the Analysis by TOPSIS

<table>
<thead>
<tr>
<th>Author (Chronological order)</th>
<th>*Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Anderson and Sohal, (1999)</td>
<td>X</td>
</tr>
<tr>
<td>Whiteman and Haupt (2004)</td>
<td>X</td>
</tr>
<tr>
<td>Deming award Metri, (2005)</td>
<td></td>
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<tr>
<td>EFQM, Metri, (2005)</td>
<td>X</td>
</tr>
<tr>
<td>Demirbag M et al., (2006)</td>
<td>X</td>
</tr>
<tr>
<td>Jung and Hong, 2008</td>
<td>X</td>
</tr>
<tr>
<td>Salaheldin (2009)</td>
<td></td>
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<tr>
<td>MBNQA Lam et al., (2012)</td>
<td>X</td>
</tr>
<tr>
<td>Singh (2011)</td>
<td>X</td>
</tr>
<tr>
<td>Khanna et al., (2011)</td>
<td>X</td>
</tr>
<tr>
<td>Aboyassin et al., (2011)</td>
<td>X</td>
</tr>
</tbody>
</table>

Score | 10 | 10 | 10 | 7 | 7 | 6 | 6 | 4 | 5 | 5 | 4 | 2 | 3 | 1 | 2 | 2 |

*Dimensions

1. Customer management  
2. Top management leadership  
3. People management  
4. Organizational learning  
5. Process management  
6. Continual improvement  
7. Quality information mgmt.  
8. Supplier management  
9. Strategic planning  
10. Role of quality department  
11. Product/service design  
12. Business/quality results  
13. Benchmarking  
14. Quality citizenship  
15. Quality culture
The TQM is a multidimensional construct and as the theory keeps developing the newer dimensions are getting added. While the literature review has revealed that there are more than 20 dimensions, which define the TQM the salient ones have been discussed in the context of knowledge intensive service sectors.

2.3.1. **Customer Management (CM)**

Customer management is a broad title and it covers several domains such as Customer Relationship Management (CRM), Customer Service Management (CSM), Customer-centric Knowledge Management (CCKM) and so on. But this research is on knowledge intensive service organizations so the dealt literature is about the maintaining of close relationship with the customers so as to satisfy and if possible delight them and make them repeat business. Customer orientation is the single most important principle of TQM (Brah et al., 2002). Researchers have found that there is a need to create a culture of

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**Figure 2.3:** The Theoretical Model of TQM (Lee and Eom, 1990 and Lam et al., 2012)

The TQM is a multidimensional construct and as the theory keeps developing the newer dimensions are getting added. While the literature review has revealed that there are more than 20 dimensions, which define the TQM the salient ones have been discussed in the context of knowledge intensive service sectors.
achieving business excellence through customer satisfaction (Kanji and Wallace, 2000). This is because the research shows that ultimately the customers should return to the organization for repeated patronage and it can happen only if the customers are satisfied with the product or service they have received (Harrington et al., 2012, and Yunis et al., 2013). CRM is also a widely practiced concept in CM and it started with the development of a vast amount of customer data which the firms were supposed to maintain in order to serve the customers better. There was a need to organize these data for analysis so hardware and software solutions were to be developed. Further sales force automation, customer service and support were integral to firms’ CRM activities (Boulding et al., 2005; Kumar and Reinartz, 2006; and Saarijärvi et al., 2013).

2.3.2. Top Management Leadership (TML)

In the context of knowledge intensive service sectors, the TML competencies in the form of knowledge, skills, abilities, and attributes of the leaders to motivate the employees towards quality consciousness plays a very vital role as opined by a group of researchers in the field (Rahman, 2001; Reed et al., 2000; Douglas & Judge, 2001; Haupt & Whiteman, 2004; Samat et al., 2006; Talib and Rahman, 2010; Das et al., 2011; and Yunis et al. (2013). The three roles played by the leaders are setting a direction, aligning people, and motivating and inspiring people (Kotter, 1990). A review of leadership competencies shows that research has focused on the issue of leadership competencies for some time, with the idea of identifying the qualities and abilities possessed by successful leaders (Das et al., 2011). The TML are considered important for several reasons, including the fact that they give direction, they set measurable objectives, and they are important for the learning to take place continuously which is essential for quality improvement (Intagliata et al., 2000). According to Brake (1997), competent leaders have a global mind-set; they seek knowledge and expertise beyond boundaries and draw information from many
sources in many ways. He also includes items such as dealing with high ambiguity and uncertainty, taking risk initiatives, experiencing new things, and engaging in personal transformation. Competent leaders focus on continual quality improvement (Srinivas, 1995), get results, and manage strategy to action by stressing the importance of achievement and mastery motives, and motivate/influence others without authority to extend one’s performance capabilities and empower them to do their best (Mumford et al., 2000). According to Spreitzer et al. (1997), competent leaders have interpersonal skills that help them in bringing out the best in people, increasing their capability for cooperation and team building, attracting and developing talent, motivating and aligning people to one vision, and communicating in both oral and written form. When the TML is good there will be sound technical knowledge available to perform the organizational tasks. There will also be astuteness so that they can recognize the key constituencies and decision makers, and can understand the key organizational processes, systems, procedures, and methods (Brake, 1997). This will enable the organization to stay abreast of world standards of competition and know what it takes to match and beat those standards through top quality products and services (Birchall et al., 1996) and also understand the nature of their business and be able to analyse current trends and market conditions (Brake, 1997).

2.3.3. People Management (PLM)

Winning the employee commitment in TQM is one of the biggest challenges to be faced as found by a group of researchers, and thus, people management through efficient training, quality consciousness, team building etc., and having all the processes such as appraisal, training need analysis etc., so that the employees may contribute to the growth of the organization becomes very important (Aspinwall, 2000, Rahman, 2001, Dayton, 2003, Toor, 2009, Harrington et al., 2012, and Singh & Sushil, 2013). It is a general
observation in the TQM research that traditional working practices and management styles may be inconsistent with TQM, and resistance to its implementation may be encountered among professional, supervisory and managerial staff. The TQM believes in empowering the front-line employees, giving them more responsibility and information, and so undermines middle managers’ traditional role in implementing and monitoring the instructions of top management (Karia & Asaari, 2006). Thus PM has an important role to play in the success of TQM. Building of quality culture must begin by recruiting and selecting employees with the required attitudinal and behavioural characteristics and inducting them into the quality culture.

2.3.4. Organizational Learning (OL)

Organizational learning (OL) focuses on the need for organizations to adapt to changing environments, learn from the past, anticipate and respond to threats, and continuously improve and innovate to build a desirable future, it has direct imperatives on TQM (Lam et al., 2008). Luthans et al. (1995) argue that TQM is tended to focus on internal processes rather than external issues, and is more reactive and adaptive than anticipative. OL envisions changes and commits to generating and transferring new knowledge and innovation. Facing uncertain and turbulent environment, it is time for organizations to go beyond TQM and to understand the nature and application of OL.

Lam et al., (2008) state that TQM should be embedded in OL, but also opine that TQM is only the first step or wave in transforming and creating organizations, which continuously expand their abilities to change and shape their futures. Terziovski et al. (2000) state that TQM and OL are mutually dependent. Organizations need to recognize that the continuous improvement activities as part of the TQM philosophy help creating the learning organization (LO).
2.3.5. Process Management (PM)

The PM which deals with the applying of the principles of management so that the processes in the organization are under control through clear instructions, constant monitoring, inspection, and standardization (Demirbag et al., 2006, Sharma & Kodali, 2008, Khanna et al., 2011, and Yunis et al., 2013).

Powell (1995) examined the role of TQM and found support for the proposition that TQM could be viewed as a strategic resource that generates economic value and provides the firm with sustainable competitive advantage. This makes the point clear that TQM must have a series of processes and these processes must be so designed to have a quality focus. Success can be achieved more through its features comprising process improvement and measurement methods. So, this calls for an efficient PM practice with a clear process map and in-built checks and balances. Deming (1986) has clearly stated that quality improvements are found mainly by changing processes rather than people, and that the key is to develop co-operative teamwork. If there is a climate of fear and risk avoidance, and a concern for short-term, and individual targets achieving the prevailing situation in an organization, achieving effectiveness in processes will become difficult. Glover (1993) suggested a shift away from the traditional focus on results and individual recognition, towards processes and group recognition. Continuous improvement is an important component of TQM and all the experts state it to be a process whose management is the key to success of TQM (Crosby, 1980; Deming, 1986 and Ishikawa, 1985). The use of accurate and real-time quality data is a prerequisite to product design (Ahire and Dreyfus, 2000) and process design (Ahire and O'Shaughnessy, 1998). The use of quality data and reporting systems (e.g. statistical process control, display of performance, ERP) enable continuous organizational improvement based on objective scientific methods (Capon et al., 1995; Lillrank, 2003).
2.3.6. Continuous Improvement (CI)

The CI is basically striving to improve the level of service at all levels in the form of small improvements on a continuous basis (Khanna et al., 2011; Harrington et al., 2012; and Singh & Sushil, 2013). The CI is one of the key determinants of successful TQM implementation (Moghaddam and Moballeghi, 2008). The CI is predicated on maintaining the momentum of ongoing efforts to reduce errors, eliminate waste and simplifying all processes (Yu and Hunt, 2002). The importance of the CI is clear and unless it is practices across the organization there can be little success of TQM (Sharma and Gadenne, 2001).

The infrastructure for continuous improvement therefore requires mechanisms that vertically link all organisational levels to encourage employee and manager initiatives through interactions with upper management. This can be achieved by using approaches such as Kaizen and customer relationship management (Anand et al., 2009). The use of quality tools and techniques are considered necessary to establish an effective quality management system. This produces never-ending cycles of continuous improvement to achieve customer satisfaction – the never-ending requirements. However, a major barrier to the use of quality tools as observed by several researchers is a lack of resources and support (Fotopoulos and Psomas, 2009; Moghaddam and Moballeghi, 2008). It is also important to create and maintain a culture that both encourages employees to suggest changes and prepares them to expect regular change. In other words, change becomes business as usual. Essentially, this is why training and career paths are important as they give employees the roles, authority, and responsibility to act as continuous improvement agents. Additionally, leadership must provide motivation and the opportunity for employees to participate in continuous improvement initiatives (Anand et al., 2009).
2.3.7. Quality Information Management (QIM)

The QIM is the structured data gathering to ensure reliability, collecting data from the source, using quality data to evaluate supervisors and managers, making quality data available in all the places to the retrieval of the concerned (Lam et al., 2012; Ooi et al., 2011 and Singh & Sushil, 2013). The literature shows evidence that the quality of the processes in the knowledge intensive service organizations has been a function of the ability of the organization to manage the available data and information as it provides the basis for the decision making (Xu et al., 2003). The researchers have found that inaccurate information may adversely affect the quality of service (Mane et al., 2011). The processes of information management include data collection, data storage, data warehousing, data mining etc., and the QIM should include a range of activities such as: identification of the information needs; designing of the information management system structure; capturing organizing, storing, retrieving, processing, and analysing data and information, transmitting, reporting, and displaying data and information; and finally safeguarding the information (Lam et al., 2012 and Singh & Sushil, 2013). Several researchers have emphasized that the QIM is an important component of TQM (Samat et al., 2006; Khanna et al., 2011). The QIM is concerned with the issues related to five stakeholders in the business organizations: information producers who create or collect the information relevant to the organization, information custodians who design, develop, and operate on the quality information, information consumers who actually use the information for the organizational benefit, information managers who are responsible for the management of the information, and the internal or external auditors who monitor the information quality (Xu et al., 2003). It is evident that as the TQM is a tool existing for continuously enhancing the customer satisfaction on the services they receive so that the
organization can produce ‘customer delight’ the data and information management of the customers is an inseparable component of it.

2.4. Overall Performance Management (PERF)

The word performance in the organizational context has different connotations. It could be Operational performance, Organizational performance (Financial and Non-financial), Brand performance, Market performance, Research performance and so on. There are different streams of research in this area and it is necessary to focus on specific context of performance in the study related to the influence of OCB on performance. Literature is rich in performance measurement with different approaches, the most common being Balanced Score card approach. Again, there are qualitative as well as quantitative measures of performance, and also performance at employee level and organizational level.

Chiang & Tsung-Sheng (2012), in their study in tourism industry on the mediating effects of OCB when studying the impact of perceived organizational support and psychological empowerment on job performance used six variables: Fulfilling specific job responsibilities, Meeting performance standards and expectations, performance level of the employee, Employee effectiveness, Ability to perform better than others, and Employee job-quality. At the organizational level of study, financial measures are most commonly used performance measures and comprise of three main components: Profit margin, Return on assets, and Return on equity. Performance indicators could be used for financial reports, for monitoring the performance of employees, customer satisfaction, the health safety environment rating and overall equipment effectiveness as well as many other applications. If performance indicators are identified properly, then it can provide or identify resource allocation and control, problem areas, the contribution, benchmarking, personnel performance and the contribution to maintenance and overall business
objectives (Kumar et al., 2009). Campbell (1995) states that there are three performance measurement indicators suitable to be applied as equipment, cost and process equipment. Coetzee (1998) also agrees that machine or facility maintenance is among other factors like task, organisational and profit or cost that should be measured with focus on the efficiency level of each subject. He also suggests the use of performance ratios that are parallel to the performance parameters which include: Availability, Mean time to failure, Manpower utilization, and Overall maintenance cost effectiveness. Although the measures form a balanced view of the maintenance system, they are yet limited to operational and tactical aspects. The measures appeal to different performance hierarchies but it is very difficult to identify the specific hierarchies to which they belong. They are also numeric and hard measures with no clear connections to the corporate strategy. Kutucuoglu et al. (2001) and Wordsworth (2001) agree on the indicator for performance which comprises of the performance of aspects which are related to equipment, task, cost, immediate customer impact and also learning and growth. However, Cupello (1994) states that the indicators divided into two aspects that are the satisfaction factors from customer and employee and also the performance of project and suppliers. Brown et al. (1994) suggests three similar factors with Cupello (1994) while adding that financial, product/service quality and public responsibility are also significant measures to assess the performance level of maintenance management.

While Kaplan and Norton (1992) advocate different perspective on measuring performance level in which they classify the properties into tangible aspect as financial and intangible aspects like customers, internal processes and innovation and learning. Baharum et al. (2006) from his service quality framework differently proposes three different aspects for instance functional which focuses on the service quality, technical aspect on the property quality and also image aspect also from property quality. There has
been studies by researchers such as Jung and Hong (2008) who have studied performance in terms of factors such as Customer satisfaction, Employee morale, Productivity, Defective rate, Warranty claim, and Cost of quality. In these studies the focus has been to study the influence on employee performance. But in this research the performance is intended to be measured directly in terms of the performance of the organization in general, which would be the end result of the aforementioned performance indicators.

So, in the context of the present study, the indicators of performance of an organization can be broadly categorized in to Operational performance and Organizational performance factors in the context of knowledge intensive service organizations. Performance measures that have been suggested by (Ramamurthy, 1995; Brah et al., 2002; Demirbag et al., 2006; Sila, 2007) are used to develop the structural model of performance in this research. Operational performance reflects the performance of internal operation of the company in terms of Cost reduction, Waste reduction, improving the quality of products, Improving flexibility, and Improving delivery performance (Tangen, 2004). Organizational performance is measured in terms of financial and Non-financial performance. Financial measures are: Revenue growth, Net profits, Profit to revenue ratio, and Return on assets (Salaheldin, 2009). Non-financial performance are not directly in terms of financial figures but still account for the growth of the organization on the long turn. Non-financial measures are: Investments in R&D, Capacity to develop a competitive profile, new products development, Market development and Market orientation (Salaheldin, 2009). Hence the Performance measurement model proposed for the research is as depicted in Figure 2.4.
2.5. Summary and the Research Gap

The research literature is rich in theoretical models of the four constructs of particular interest in this research. There are several studies which relate all the three constructs to performance in one form or the other but they are discrete in nature. The literature review was undertaken separately for the three exogenous variables of study which influence the overall performance of the organization.

The first is the OCB, which has been studied by various researchers in terms of job enrichment, employee perceptions, task-interdependence & goal-interdependence, job satisfaction, attitudinal environment, organizational support, knowledge sharing and job attitudes, organizational culture & organizational justice, marketing, social exchange theory, and leader reward behaviour. A deep look into these aspects indicates their
Chapter II: Literature Review

relevance to the enhancement of job performance of the employees or an organization which should lead towards enhanced performance of the organization.

The second construct which is under focus is KM and research in this area has been in progress since the past several decades and several streams of studies have emerged out in the field which are having the objective of making available the latest knowledge to the employees in the right time and the right place so that they may be efficient and effective in performing their jobs with the highest level of competencies. The objective is to make the organization a learning organization so that it can ultimately create knowledge and be innovative in its products and services and ensure sustainability through the gaining of the competitive advantage. So to achieve this purpose, the experts in the field have designed very well-defined processes and practices which include knowledge diagnosis, knowledge acquisition, knowledge generation, knowledge sharing, knowledge storing, and knowledge application. While there are several theoretical models which have linked these processes to the outcomes such as innovation, performance, gaining of the competitive advantage, various efficiencies of the organization, they have been discrete studies which are linking these enablers to the outcome in the form of organizational benefits that can be derived through these processes and practices of KM.

The third construct the TQM is now grown to a full-fledged discipline owing to its success in both production and service organizations. The literature is rich in terms of various models, which link the individual components of TQM towards the enhancement of overall performance. The research literature in TQM are focusing on performance management, quality excellence models, quality management systems, quality cost, performance measurement, and competitiveness. There are about 16 well-defined dimensions of TQM which include customer management, top management leadership, people management, organizational learning, process management, continual
improvement, quality information management, supplier management, strategic planning, role of quality management department, product/service design, business/quality results, benchmarking, quality citizenship, quality culture, and TQM principles. Compared to the earlier two constructs discussed above there are some theoretical as well as empirical models which link the TQM to the quality of performance enhancement.

It is clear from the literature review that there is adequate evidence for the existence of the studies which have linked the three constructs to the overall performance (PERF) of the organization individually. Nevertheless, there exists a clear research gap in the existence of a model which gives a holistic approach to the linking of these three enablers into PERF. There is no model which holistically links the three constructs under investigation to the overall performance of the organization. It is a compelling necessity, at this stage of knowledge driven economy, where organizations are vying for improved PERF to explore the interrelationships between these three constructs as well as their influence on the PERF. This research gap can be filled by studying the predecessor - successor relationships between the exogenous variables under consideration and link them to the PERF. Thus, the development of an empirically testable model linking the above mentioned variables to PERF through the identification of the variables which are associated with each of the constructs becomes the focal theme of this research, which attempts to fill the research gap and add to the body of knowledge in this area.
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).