CHAPTER II

REVIEW OF LITERATURE

2.1 Introduction

Competency Mapping is a process of identifying specific behavior or skills which differentiating the outstanding form the average. The idea of this study is to find out the key behavior or skill of successful civil engineering contractors. The introduction of competency based approaches within the corporate environment initiated around 1970 and their development and use since then has been rapid. The distinguished Harvard’s psychologist, David McClelland is credited with introducing the idea of “competency” into the human resource literature; in his efforts to assist the United States Information Agency improve its selection procedures. The latter argued that traditional intelligence tests, as well as proxies such as scholastic grades, failed to predict job performance. McClelland’s counter argument to the growing dissatisfaction with intelligence testing and the traditional job analytic approaches to personnel selection, was the proposal to test for competency. As a case study, he proposed the selection of Foreign Service Information Officers (McClelland, 1973). In his research, McClelland found that competencies such as interpersonal Sensitivity, cross-cultural positive regards and management skills differentiated superior from average Information Officers (Dubois, 1993). Throughout the years competency based approaches have proved to be a critical tool in many organizational functions, such as workforce and succession planning and performance appraisal.

Hence, the empirical works relating to competency mapping are reviewed and a brief account of the review is presented in this chapter.
Naomi Meadows (2004)\(^1\) in her study “Developing and validating a competency framework for advanced pharmacy practice” has identified 34 competencies and has grouped them into 6 competency domains. Consensus development panels have validated the descriptors terms used to define competency at “foundation”, “excellence”, or “mastery” for the “expert practice” and the framework. The majority have indicated that their practice is at “mastery” for the “expert practice” and “building relationship” clusters, although a broader level of activity is reported for the other four clusters. She has also developed an evidence based advanced practice competency framework, grounded in the multi-disciplinary literature and validated by expert opinion.

This provides the map of the key generic skills, knowledge attributes required by the individuals practicing at the higher level. The competencies and descriptors developed by this research could be used as a template for the development of consultant pharmacist.

Marica L. Bush (2001)\(^2\) in her study “Spreadsheet competencies needed for entry level managerial positions in accounting and business / information systems” has pointed out that the post secondary business educators, accounting managers, and business / information systems managers have agreed upon 65 spreadsheet competencies as an important skill set needed by the post secondary business graduate seeking an entry level managerial position, and she also states that of the 65 competencies, 29 items are rated at 4.5 and above and

\[\text{References}\]


extremely important to all the three panels set by her. She has found out that highly correlated relationship between the perceptions about spreadsheet competencies is needed for entry level managerial positions in the accounting and business/ information systems.

She concludes that a fairly high significant relationship between the mean ratings of important spreadsheet competencies by the business/ information systems managers and post secondary business educators is conformed. The two groups have 75% of their variance in common across 73 competencies; of these 73 competencies, twelve competencies were identical.

Paul Lyons(2003)³ in his study “Influencing performance improvement using skill charting” has provided a brief exposition on the general definitions and features of skills and competencies in organizations. He presents an overview of skill charting, and offers specific methods to demonstrate training for skill development, using skill charting and competency mapping; and then presents the results of a brief study that encompasses the approaches discussed. The findings of the study indicate that the skill charting methods have values, and promise, required for the study. The author also points out that the organizational domains include team building, job analysis, task analysis, skill development,

development of competencies and standards, training, performance analysis and appraisal. Finally the author has concluded that the skill charting application offers many opportunities for the human resource and organization development specialists to create interventions that invite and involve the employees in learning aimed at increasing the self-efficacy of the individual, improving the individual performance, and improving the success of the organization.

George Boak & Diane Coolican,(2001)⁴ in their study “Competencies for retail leadership: accurate, acceptable, affordable” describe the development of competency model for middle- senior managers in a large fashion retailing company, to encourage them to act more strategically and discuss the relative benefits of researching as a custom made model against using or adopting a generic model. They describe how the model has been used in the company for training and developing and evaluate the model against a critical view of management competencies. In their study they have taken 70 area managers, seven most effective performers are identified, and five of them are interviewed using a critical incident approach. Six key leadership competencies have been identified and they have constructed the model. The authors conclude that it is possible to produce an accurate and acceptable bespoke model of management competency for managers whose roles have much in common, within a reasonable budget, and thus is the realistic alternative to adopt a generic model. They also point out that such a model will inevitably be influenced by mental models of “effective managers”.

T.V.Rao & Mohit Juneja (2007)\textsuperscript{5} in their study “A study of competency assessment through assessment centers and 360 degree feedback” describe that both assessment centers and 360 degree feedback have become very popular new era HR tools. With human resources gaining strategic importance combined with raising costs of talented managers and their source availability, the organizations are left with no alternatives than identifying and grooming talent from within. This has to the increased use of assessment centers and 360 degree tools developing leadership competencies. The researchers study is based on the data gathered from the 3 organizations, Assessment centers and 360 degree feed back used as development tools .In all these organizations competency mapping was done and common competencies were identified using behavior indicators. Competencies were assessed by their external assessor and their seniors, juniors, and colleagues on the same competency model. The researchers have found out that no definite patterns lead to the conclusion that pat performance as assessed by 360 degree feed back predictor of future potential as assessed by the assessment centers.

Judith G. Calhoun et.al (2005)\textsuperscript{6} in their article “Competency Mapping and Analysis for Public Health Preparedness Training Initiatives” point out that Competency-based education and assessment initiatives have been completed in a number of health care and health management professions during the past decade. In addition, several competency

\textsuperscript{5} T.V.Rao & Mohit Juneja “A study of competency assessment through assessment centers and 360 degree feed back”W.P .No 2007-06-06” Research and publication, IIMA, June 2007, pp:11 - 26

subsequently had to address the many challenges and barriers to the dissemination and integration of their models into specific educational and professional development practices.

Specification endeavors have been similarly undertaken in relation to the field of public health, including the development of the Council on Linkages between Academia and Public Health Practice competency model and the initial competency modeling Delphi survey completed by the Association of Schools of Public Health. All of these organizations have competency modeling and deployment, understanding and acceptance of competency-based systems are formidable goals, often rife with controversy. This article describes the processes undertaken by The University of Michigan Center for Public Health Preparedness to integrate competency-based learning and assessment in educational and training initiatives with its many community partners.

Rabindra Nath & Rajat Raheja(2001)7 in their article on “Competencies in hospitality industry”, point out that in the given business scenario it is becomes imperative that each of the player in the hotel industry consciously works towards achieving and maintaining differential positioning based on service standards. However any process improvement or innovative ideas set by the leaders are constantly copied by the “me-too” players, thus providing only diminishing returns to them. This puts considerable pressure on the leaders to constantly upgrade service standards in the organization. Hence the key question remains how to drive continuously the desired behavior in the organization where service standard is

the key to survival. One important factor in driving the desired behaviors in the organization is how the changed strategy, processes and innovative ideas are implemented and communicated down the line. This is of critical importance as change in the job role due to changed processes needs a different competency requirement on the part of the job incumbents leading to different skill sets and performance measurement standards. Here arises the need for a common thread that would run across all HR systems, and can help to drive and measure the behavior of an employee. Competency based approach focuses on how an employee creates value and what is actually accomplished and has thus provided a much needed lynch-pin to link all HR systems in the organization that will help to drive and reinforce the desired behaviour. However the key here is how the competencies are mapped and implemented.

The success really depends on the time, effort and commitment on the part of the top management to drive such an initiative. Hence before taking a plunge, it is important for the top management to deliberate on the reasons for opting for competency-based approach and tools to be used for competency mapping.

Dhananjay Gokhale (2001)\textsuperscript{8}, in his study “PM Competency Mapping” points out that a number of organizations try to define and document project manager competencies. Many factors like a sound understanding of competencies, competency grades, facilitators’ interviewing, inference skills, etc. play a very important role in such an

\textsuperscript{8} Dhananjay Gokhale, “PM Competency Mapping”, PMP -1, PMI Global congress Proceedings-Singapore, 2005 pp:1 – 8
exercise. However, there is a much greater challenge of avoiding a ‘me too’ mindset. The exercise must aim at bringing the best out of a project manager with honest efforts to help the PM successfully continuing the journey towards competency. The key is to go beyond mere processes and create a mapping exercise based on the action oriented competency statements. This paper not only elaborates the concept but it actually puts forward the ‘how to’ aspects with the help of a real life case study of a project management competency mapping exercise based on more than 230 action-oriented definitions of PM Competencies.

MH Kunc, J DW Morecroft (2009)⁹ in their study on “Resource-based strategies and problem structuring: using resource maps to manage resource systems”, point out that the resource-based view of strategy seeks to explain why some firms consistently outperform rivals in the same industry by acquiring a unique set of strategic assets (or resources). However, differences between dominant managerial mental models in management teams lead to disagreement at the moment of implementing distinct resource-building strategies. This managerial and cognitive view of strategic decision making and competition lends itself to investigation through problem structuring methods. The authors suggest that resource maps, as a problem structuring method, can be used to interpret managerial mental models for strategic decision making in terms of resource-building processes. Through resource maps, it represents the system of asset

---

stocks believed to be most important for driving business performance. It illustrates the framework by comparing and contrasting maps of the system of resources (asset stocks) that best characterize two leading firms in the UK commercial radio broadcasting industry.

D Bruce Merrifield (2006)\textsuperscript{10} in his study “Make outsourcing a core competency” highlights that instantaneous access to remotely-located, low-cost manufacturing and service skills has become widely available, and is rapidly eroding the economic and financial sovereignty of the nation-state system. At the current rate of US outsourcing, some 28 emerging countries could account for about half of US manufacturing and a growing percentage of US skilled services within the next decade. Government regulations are a major driver of outsourced jobs. Although the International Program for Commercialization of Technology (INPACT) was designed to help developing countries replicate the "U.S. miracle," it has inadvertently become a program for US small business development. INPACT has resulted in a novel model for US businesses to outsource the development of new high-growth businesses for importation into the US. In a world where industrial firms will be increasingly forced to outsource their manufacturing and development, companies will need to morph into innovation companies, both for sustainable growth and even survival. INPACT has resulted in a novel model for US businesses to outsource the development of new high-growth businesses for importation

into the US. In a world where industrial firms will be increasingly forced to outsource their manufacturing and development, companies will need to morph into innovation companies, both for sustainable growth and even for survival.

Grady Bruce & Gregg Schoenfeld (2006)\textsuperscript{11} in their article “Marketers with MBAs: bridging the thinking-doing divide” have highlighted that the purpose of this research is to investigate the skills and abilities of MBAs who study marketing, those occupying marketing positions, and companies that hire marketers regard as important; the level of competency required to perform the job; and areas that need improvement, whether through on-the-job training, continuing education, or changes in MBA curricula. Large-scale international longitudinal and cross-sectional surveys are used to assess the skill development, skill requirements, and the need for additional education, provide the foundation of this paper.

The data are obtained from three surveys conducted by the Graduate Management Admission Council: Global MBA Graduate Survey, MBA Alumni Perspectives Survey, and Corporate Recruiter’s Survey. Understanding the perspectives of different constituencies provide an in-depth and comprehensive view of the skills and abilities needed by those who work in marketing. The paper identifies a thinking-doing divide, discusses why it exists, and suggests how it may be corrected. The research, although

This paper presents data from three viewpoints that taken together yield a comprehensive

\textsuperscript{11} Grady Bruce&Gregg Schoenfeld, “Marketers with MBAs: bridging the thinking-doing divide”, Marketing Intelligence & Planning, Bradford, Emerald Group Publishing Limited 2006. Vol. 24, Iss. 3; pp: 257 - 276
picture of graduate education for marketers as it exists today, and clearly suggests
directions for graduate education of the future marketers. Consisting of large international
samples, is limited to students and alumni of graduate business schools and companies
that hire MBAs. Even though the scope of the samples is limited to more advanced
practitioners, the information is useful to faculty, students, and companies at all levels to
assist in developing the marketers of the future.

Sally Flood (2006)\(^\text{12}\) in his study “Questions of sport”, points out that the industries in
all the sectors exert high-performance pressure on the employees. This makes training
and development constant challenge for investment banks. Dresdner Kleinwort
Wasserstein (DrKW) should makes sure that the employees are up to the stresses of the
job, and have the technical skills required the perform their roles adequately. Best people
are always attractive to the opposition, and they have to think of ways to keep them loyal
to the organization. One of the ways to do that is by creating a culture that is different
from the competitions. The latest effort to develop that culture is the corporate athlete
programme, a scheme that brings together high-potential employees with world-class
athletes for coaching and management development. The initiative has been very
successful. Turnover among those employees that have completed the course is four
times lower than the associates overall. A lot of their culture is driven by people
themselves -- their employees are very much focused on beating the opposition and show
that they do so.

2006. pp: 34
Aviad Bar-Hain (2007)\textsuperscript{13} in his study “Rethinking Organizational Commitment in Relation to Perceived Organizational Power and Perceived Employment Alternatives”, has pointed out that the detachment of moral and affective motives from the actual behavior of loyalty and active commitment is recognized and expected in cross cultural research into the organizational commitment. However, this separation is almost impossible to make from the perspective of Western and managerially biased mainstream research into the organizational commitment. Following the cross cultural perspective, the thesis of this article is that the organizational commitment is not a state of mind but a behavior of choice. It is the unequivocal behavior of being obligated, regardless of individual goals, sentiments or moral values, particularly in the worst conditions, when organizations are unable to reward it. It is a study of 361 respondents from four organized systems into the impact of perceived organizational power (POP) and perceived employment alternatives (PEA) on behavior of organizational commitment. Many people in this study have chosen active modes of positive commitment, in spite of having perceived employment alternatives and possessing only a small amount of perceived organizational power.

This suggests that even during bad times for their employing organization, employees may not automatically rush to take advantage of their employment alternatives, but, on the contrary, may continue to contribute their knowledge, skills and

abilities voluntarily, and not as tactics designed to protect their organizational assets. After all, pure commitment is an obligation to do something that is not necessarily agreeable or gainful. This lesson is well known in non-western cultures.

Lauren S. Harris and Karl W. Kuhnert(2008)\textsuperscript{14} in their study “Looking through the lens of leadership: a constructive developmental approach” have the objective to examine the relationships between leadership development level (LDL) and leadership effectiveness utilizing 360-degree feedback scores. Researchers have examined the raters’ ability to recognize effective leadership practices using a constructive developmental framework. They have used quantitative and involved data gathered from the subject-object CD interviews and 360-degree feedback scores collected from the individuals enrolled in an executive leadership development program. The researchers have revealed that LDL predicted leadership effectiveness using the 360-degree feedback measure across a number of sources including superiors, subordinates, and peers. In addition, the researchers have revealed that the individuals that lead from higher levels are more effective in a number of leadership competencies (e.g. Leading Change, Managing Performance, Creating a Compelling Vision, etc.). Finally, the research demonstrates that the superiors and peers can predict leader effectiveness better than the subordinates or oneself.

\textsuperscript{14} Lauren S. Harris and Karl W. Kuhnert “Looking through the lens of leadership: a constructive developmental approach”, leadership and organizational development journal, Emerald group of publishing limited, Vol. 29, Jan, 2008, pp. 47 - 67
Vathsala Wickramasinghe (2008)\textsuperscript{15} in her study “Gender, age and marital status as predictors of managerial competency needs”, has investigated the empirical evidence from Sri Lankan Telecommunications service provider. The objective of the study is to investigate the factors that predict competency needs of managers using quantitative methodology. For the study, 31 individual competencies were analysed. The study is confined to a fully integrated telecommunication service provider; 198 managerial employees participated in the survey. The researcher has found out that the marital status, age and gender have significant effects in predicting competency needs. The results also have revealed significant interaction effects among the variables of marital status and the number of subordinates, and marital status and gender in predicting competency needs. Though there is an enormous diversity in the scope of competency literature, a few empirical research studies have been conducted on the predictors of management competency requirements. Further, a limited number of competency studies have been conducted in Asia. Hence, empirical research studies are needed to fill this lacuna in literature. The study has identified a list of competencies to a group of managers in a Sri Lankan telecommunication firm. One of the main features of the current study is the usage of self-reporting method to assess competency levels. Each participant was asked to rate his/her own perceived current level of expertise and future importance of each of

\footnotesize{\textsuperscript{15} Vathsala Wickramasinghe “Gender, age and marital status as predictors of managerial competency needs”, Gender in management: An international journal, Vol.23, May,2008, Emerald publishing limited, pp:337 – 354}
the 31 work-related competencies. The responses have led to identify individual competency gaps.

Hanneke Heinsman, Annebel H.B. de Hoogh and Paul L. Koopman (2007)\textsuperscript{16} in their study “Commitment, control, and the use of competency management” have examined the effects of the commitment- and control-approaches on the use of competency management, and to investigate whether, attitude, subjective norm and perceived behavioural control mediate these effects.

In this study, the author has used a survey; employees were indicated whether their organization adopted a commitment- or a control-approach towards competency management. Moreover, they rated their own attitude, subjective norm, perceived behavioural control, and behaviour. In Study 2 a scenario experiment was conducted in which the authors have manipulated the commitment- and control-approaches towards competency management in order to establish casual relations. They conclude that the Results consistently showed that the use of competency management is higher within a commitment- than within a control-approach. Furthermore, attitude and perceived behavioural control are found to mediate the relationship between the commitment-approach and the use of competency management. The results of the studies highlight

that a commitment-oriented approach increases the use of competency management by the employees and that a positive employee attitude and perceived behavioural control are of considerable importance when increasing the use of competency management is an organization’s primary goal.

Fotis Draganidis and Gregoris Mentzas(2006)17 in their study“ Competency based management the review of systems and approaches”, have identified the key concepts of competency management and have proposed the method for developing competency method. The study examines the CM features of 22 competency based management systems and 18 learning management systems. The authors highlight that the areas of open standard (XML, web series, RDF) semantic technologies.

They highlight that ontology-based models of competencies can present a tight integration of capabilities and information in a highly contextualized user interface. At the same time, different services and components may be loosely coupled through a dynamic architecture whose coherence is ensured via a common semantic model in the rich competency ontology.

Karin Amit et.al(2008)18 “Leadership-shaping experiences: a comparative study of leaders and non-leaders” in this study the authors objective is to compare “leaders” with “non-leaders”. The current research attempts to shed light on the impact of the early experiences on leaders’ development. The study is presented in two parts, quantitative and qualitative.

In the first (quantitative) part, a group of soldiers perceived as leaders was compared with a group of soldiers perceived as non-leaders, in order to examine the hypothesis that leaders have had more leadership experiences than non-leaders. Confirmation of this hypothesis led to the qualitative part, in which the sense in which the reported experiences had contributed to leadership development was explored. They found that the leaders proved to have had more leadership experiences than non-leaders in their youth. Such experiences impact on self-perception as a leader, the development of self-efficacy in leadership, and the accumulation of psychological and behavioral knowledge related to the manifestation of leadership. Finally the researchers conclude that knowledge regarding leadership development via natural experiences, particularly experiences that occur in the early periods of life. Practically, the study adds that knowledge can improve selection processes of leaders, as well as knowledge can be applied to leaders’ development, particularly reflective methods.

Alan Belasen and Nancy Frank (2007) in their study “Competing values leadership: quadrant roles and personality traits” have taken the objective to validate the number and order of leadership roles and identify the personality traits which trigger the choice of leadership roles. A survey addressing classification and measurement questions in each of the competing values framework (CVF) quadrants was administered to a sample of managerial leaders across organizations.

Multidimensional scaling representing the underlying CVF dimensions in a spatial arrangement was conducted with input derived from LISREL, which was also used to test the degree-of-fit between the CVF roles and quadrants as well as to examine the relationships between personality traits and leadership roles. The results produced a remarkable synthesis of two separate fields of study within a single competing quadrants grid confirming the causal paths from traits to the compressed CVF latent variables. And the authors highlight that the new awareness of precursors to CVF roles calls for significantly shifting the focus of leadership training and education efforts. Leadership development strategies designed to improve current managerial strengths must also target specific weaknesses and their psychological underpinnings.

Sandi Mann (2006) in his study “Expectations of emotional display in the workplace” has focused on the comparative analysis of American and British. In this paper the author aims to portray that, while particular types of emotional displays are often essential for the team and service work, the negative consequences of conforming with display rules need to be weighed against their true necessity. This research seeks to examine their necessity in terms of the expectations that people have of the emotional displays of others, so that potentially stressful emotional work can be targeted appropriately within organizations.

This quantitative study uses a questionnaire approach to assess the expectations that 121 UK and 101 US participants have towards the emotional displays of various service providers and work colleagues. The author found that Expectations of emotional display were shown to differ across cultures, between jobs and roles within an organization, and between males and females. In findings the authors said that these should not be limited to frontline communications and this may impact on selection and training procedures. Managers will be better able to target emotion work within those interactions where such performance is most expected and required.


wellbeing, control and organizational commitment”, have investigated that the role of work locus of control (WLOC) as a moderator of the relationship between the employee wellbeing and the organizational commitment. The paper reports on a quantitative study of middle level executives from motor-cycle manufacturing organizations based in Northern India. The focus of the paper is to examine the predictive ability of the wellbeing and the moderating effect of WLOC in predicting organizational commitment.

The result suggests that the wellbeing is negatively related to conditional continuance commitment, whereby the employees consider the advantages associated with continued participation and costs associated with leaving, and normative commitment, whereby the employees feel that they have moral obligations to remain with the organization. The presence of an external WLOC has a positive impact on the relationship. The wellbeing, as represented by a hassle-free existence, predicts positive affective commitment with a particular organization, and internal WLOC as represented by effort influences the relationship negatively. The Studies examining the role of WLOC as a moderator of the relationship between the wellbeing and organizational commitment are limited particularly in the context of post-liberalization, as is the case with the manufacturing industry in India.

Ji Hoon Song & Hong Min Kim(2008)\textsuperscript{22} in their study“ The integrative structure of

employee commitment” have primarily aimed to explore the influences of the individuals’ perceptual characteristics and cultural aspects of the learning organization on organizational commitment in Korean organizational settings.

The approach takes the form of examining the integrative determinants of performance improvement, designed as a research framework, which conceptually shows the relations among the environmental variable – supportive learning culture, individuals’ characteristics – interpersonal trust, collectivistic tendency and motivation to collaborate, and organizational commitment. The samples were collected from Korean profit organizations. Confirmatory factor analysis was used to assess the construct validity of the hypothesized measures, and structural equation modeling was adopted to examine the sequential effects among the variables.

The results suggest that the interpersonal trust and collectivistic tendency have significant impacts on the employees’ motivation to collaborate; in turn, through the organizational supportive learning culture, they have positively significant impacts on the employees’ organizational commitment. Furthermore, supportive learning culture plays a mediating role to enhance the effect of the individuals’ perceptual variables to organizational commitment. The research presents evidence that the learning culture could lead to management-related beyond simply learning-related outcomes. In this regard, the supportive learning organization culture could be assumed as the overall aspect of the organizational culture promoting positive non-learning outcomes in the workplace.
Jeremy B. Bernerth et.al(2007) in their study “Is personality associated with perceptions of LMX? An empirical study” have investigated whether or not the leader-member exchange (LMX) is influenced by the personality of the subordinates and/or the supervisors.

Previous literature from the general leadership, personality, and LMX domains was used as a theoretical background for proposing certain types of relationships between the personality traits that make up the Big Five and the employees’ perceptions of LMX. Personality data were collected from 195 matched pairs of employees and supervisors. LMX data were collected from 195 employees. Structural equation modeling (SEM) was used to test the hypothesized relationships. The employees’ conscientiousness, extroversion, openness, and neuroticism were found to impact perceptions of LMX. Likewise, the supervisors’ conscientiousness and agreeableness also impacted the employees’ perceptions of LMX. The results indicate that there may be a dispositional basis to perceptions of LMX. Thus, the relationship between LMX and outcome variables (i.e. performance, turnover, satisfaction, etc.) may be only part of the story. The Practitioners who want to maximize the relationship between the employees and their supervisors would be well served to actively consider the personality issues. In particular, some employees and some supervisors appear to be more willing to engage in engage than others.

David w. Johnson(2000)\textsuperscript{24} in his study “Competency-Based Educational Program Effectiveness Assessment”, has pointed out that Colleges and Universities, like most businesses, need to regularly assess the effectiveness of their products and services. In fact, such analysis is usually required by accrediting bodies to ensure the educational institutions, and each of their departments, show continual improvement. This paper describes a competency-based approach to effectiveness assessment at the program level utilizing various feedback mechanisms.

An approach to feedback analysis using curriculum-competency mapping that can suggest areas for program improvements is also discussed. Finally, experiences in applying the competency-based assessment process for the Computer Information Systems program of a small college is described. In this paper the author has described an approach to educational program effectiveness assessment. The research is specifically important to university departments, faculty, and program chairs seeking an approach to continual program improvements as part of their yearly planning cycle and for the accreditation reviews. The main message of the work is that feedback mechanisms such as surveys, case, project and portfolio evaluations, and exit examinations need to be designed to measure the attainment of a set of program competencies that in turn are linked to the Program’s Curriculum.

\textsuperscript{24} David w. Johnson “Competency-Based Educational Program Effectiveness Assessment”, Journal of Information Systems Education Volume 11, 2000, pp:127 - 132
A specific example utilizing a competency-based exit examination for the CIS Associates Degree Program of a small college is given. Results of the exam are statistically analyzed and the curriculum-competency mappings are utilized to suggest program areas that need improvement.

Rakesh Sharma and Jyotsna Bhatnagar (2009)\textsuperscript{25} in their study “Talent management – competency development: key to global leadership”, have aimed to draw lessons on how building a talent management strategy based on competency profiling becomes a critical impact area within the field of strategic HRM. Design/methodology/approach – The case study discusses an Indian pharmaceutical organization, the environment and the issues arising in context to talent management. The case discusses a well designed talent management strategy. The talent mindset has helped the organization in recruiting the best talent from the best pharmaceutical organizations. The attrition of the top and valued talent segment has come down. Some of the key positions have been filled through succession planning. The implications lie in whether to grow talent or buy talent.

What signal through a communication strategy should a HR manager give in when determining for the talent segmentation? How to develop talent and retain employees when there are not challenging options available in the internal labour market? This paper

\begin{flushleft}
\textsuperscript{25} Rakesh Sharma and Jyotsna Bhatnagar “Talent management – competency development: key to global leadership”, Industrial and commercial training journal Vol 41 No 3 2009, Emerald Group Publishing Limited, pp: 118 - 132
\end{flushleft}
provides insights to HR practitioners on how to attract, acquire and manage talent in a tight internal and external labour market. It also provides empirical support for, and theoretical understanding of, the strategic HRM literature on the talent management theme.

Chong Chin Wei, Chong Siong Choy and Paul Heng Pingeow(2006) in their study on “KM implementation in Malaysian telecommunication industry an empirical analysis”, aims to assess the perceived importance (PI) and actual implementation (AI) of five preliminary knowledge management (KM) success factors, i.e. business strategy, organizational structure, knowledge team, knowledge audit, and knowledge map in the Malaysian telecommunication industry. The results show that the organizations are aware of the importance of all the KM factors but fall short of implementation. The implemented factors consist of business strategy, organizational structure, and knowledge team. Knowledge audit and knowledge map are perceived as important but are the least implemented factors.

This study was conducted in only one industry in Malaysia. Furthermore, it focuses on the preliminary success factors of KM implementation rather than on learning and knowledge utilization. Telecommunication organizations have to overcome resource problems and enhance implementation level in order to narrow the gaps for effective, full

scale KM implementation in the later stage. Such viable practice will significantly help the industry not only to compete more effectively within Malaysia, but also to position itself as a global player in the world.

Michelle R. Ennis(2008)\textsuperscript{27}, in his study “Competency Models: A Review of the literature and the Role of the Employment and Training administration (ETA)”, has said that competencies have been discussed from the demand side of employment with the consideration primarily given to the needs of the employers. Competency models can be used by the supply side of the labor market as well, such as a learner or student, incumbent worker, or hopeful and expectant new employees applying for a position, to achieve job stability. While competency models are useful for the business planning purposes, individuals seeking employment, advancing in their jobs, or transitioning careers can benefit from career exploration, planning and development with the use of a competency model framework.

The author highlights that the potential job candidates and employees must consider competencies required of a position of interest and develop and convey the desired knowledge, skills, abilities, and other characteristics to successfully interview for, perform at, and advance in a job within an organization.

Andreas, Christine (2007)\textsuperscript{28} in his study “Sustainable Competency-oriented Human Resource Development with Ontology-Based Competency Catalogs” points out that Competency-oriented approaches are gaining ground in human resource development. Key technology to cope with the complexity of fine-grained approaches are ontologies. By having a formal semantics, many competency-related tasks can be partially automated on a technical level. In this paper, the author wants to show that ontology-based approaches also foster the sustainability of such approaches on an organizational level by providing connections between the operational and strategic level. The author’s present reference ontology and a reference process model have been applied in a hospital case study.

Vathsala Wickramasinghe (2007)\textsuperscript{29} in her study “A comparative analysis of managerial competency needs across areas of functional Specialization” has investigated that whether there is a set of management competencies that should be possessed by managers irrespective of their areas of functional specialization using quantitative methodology. For the study, 31 individual competencies were analyzed. The study was confined to a fully integrated telecommunication service provider; 198 managerial employees

\textsuperscript{28} Andreas, Christine “Sustainable Competency-oriented Human Resource Development with Ontology-Based Competency Catalogs”, In: Cunningham & Cunningham(eds)e Challenges 07, Den Hagg 2007, pp: 1-8

participated in the survey. The findings reveal broad level competencies that are important for the managers working in one of the seven functional areas. The author suggests that the importance of competencies from value and skill clusters is greater than knowledge cluster across all the functional areas. Further, there was hardly any congruence with the perceptions on current expertise and current importance across all the functional areas. While the findings of the study have a specific relevance to the managers in the telecommunication industry, they could have a rather broader relevance with implications for management development initiatives.

Randy Mazurat(2009)\textsuperscript{30} in his study on “Electronic Curriculum Mapping: Supporting Competency-Based Dental Education” reports that curriculum mapping is a systematic process for gathering and analyzing data on what is taught within the curriculum. This study helps to enhance the transparency and authenticity of teaching, learning, demonstrate links between the different elements of the curriculum, align instruction to the written standards, develop integrated curriculum units, provide a baseline for the curriculum review and renewal process, identify staff development needs, and to provide communication among the instructors.

Philip C. Wright and Gary D. Geroy (2001)\textsuperscript{31} in their study on “Human Competency


\textsuperscript{31} Philip C. Wright and Gary D. Geroy “Human Competency Engineering and World Class Performance: A Cross-Cultural Approach”, Cross cultural management, Volume 8 Number 2 2001 pp: 25 - 46
Engineering and World Class Performance: A Cross-Cultural Approach” have studied either learning organization or human performance technology (HPT) theory and practice constructs by themselves; can create the conditions necessary to reach the world class status.

After examining data sets resulting from the needs assessment studies which addressed single organisations, multiple organisations in a given industry, and multiple industries in regional and national settings. Accepting that one or that any combination of the four individually-oriented causes can impede attainment of desired performance. The authors suggest that it is in the interplay of these two dynamics that change processes become effective. They suggest that the integration of these two theoretical paradigms can be envisioned as railroad tracks. Each rail is at one time the same, yet uniquely independent from the other.

Gail Hall & Associates(2008) in their study “Cooks Competency mapping and Qualifications Framework Project”, have identified and promoted positive career options, the cooking profession and the value of qualifications and optional learning routes are described in a cohesive, clear and realistic manner. This project was initiated by Chefs and educators who saw an opportunity to work together to provide clear resources that encourage new entrants to the trade. Chefs, industry educators, apprenticeship and

human resource organizations worked together on the project, beginning discussion on a Pan-Canadian basis about how qualifications in the cooking profession link to one another. Finally they recommended three things. First is to improve awareness of qualifications in the cooking field and understanding of their value, to increase clarity of information about qualifications and optional training programs, and to increase credit transferability and mobility options.

Bob Mansfield (2004)\textsuperscript{33} in his study entitled “Competence in transition” voices that the former Soviet economies have, for the past 12 years, looked to the advanced economies in the West for help in reforming their systems of vocational education and training. These "transition" economies still bear much of the legacy of the previous system and culture - academic in orientation, firmly supply lead and implemented through vocational schools which are in economic crisis. They are offered the Western "consensus" - competence-based training systems and the introduction of common or "core" skills. However, in introducing these methods, approaches and concepts, fundamental flaws appear, flaws that have not been seriously addressed in their countries and cultures of origin. This paper tries to address the problems in dealing with the concepts like "competence" and "core skills", and suggests that the researchers need a coherent, grounded concept of occupational competence to replace the relatively unquestioned "deficiency model" which these concepts represent.

Alan Weiss(2003)\textsuperscript{34} in his study on “Solo competencies”, points out that one of the great problems for independent consultants is the lack of a regulating body and the lack of a licensing requirement that create a void in terms of criteria to what a competent consultant should know, should have experienced, and should be able to perform. There is a vacuum in the size of Rhode Island in terms of any kind of "body of knowledge" for the profession as independent consultants. Solo practitioners in consulting are wonderfully positioned today to the add value to clients and money to their own bank accounts. But they are not able to do so unless they master certain basic competencies, for both their clients and themselves. A list, neither exhaustive nor definitive, but merely provocative, of the basic competencies for solo practitioners include: 1. business acumen, 2. framing skills, 3. consulting intervention knowledge, 4. management skills.

Christina Chia(2009)\textsuperscript{35} in her study on “The science of success” highlights that an individual will not have a burning desire unless he has a motive that drives him to obsession in attaining his desires. There are 10 basic motives that affect success, viz-a-viz, self-preservation, love, fear, sex, death, freedom of body and mind, revenge, hate, self-expression and material gain. No matter how small the goal may be, it will be supported by a number of these motives to inspire achievements.

\textsuperscript{34} Alan Weiss “Solo competencies”, Consulting to Management. Burlingame: Vol. 14, Iss. 4; Dec 2003, pp: 8 – 10

Next, one has to examine one’s goal statements to determine if they are challenging yet obtainable. They should be realistic but stretch one’s knowledge, skills and self-discipline. Accomplishments that exceed the ordinary are always the result of challenge. Goals that are not challenging will defeat one’s interest and purpose as they will not motivate a burning desire. Following this, one has to examine one’s goal statements to determine if they are stated in a positive fashion. A goal that is negative will lack the proper motivation for its accomplishment. For example, the proper way to state a goal would be: 'I will be comfortable and self-assured when I ...' This positive statement would enable one to boost one’s confidence and self-esteem in one’s pursuits to accomplish what you desires. It demonstrates the very basic fundamental of `what the mind can conceive and believe, the mind can achieve', by planting positive thoughts.

Jean-Paul Louisot(2003)\textsuperscript{36} in his study on “What makes an effective risk manager?”, points out the traditional reactive approach of the insurance purchaser to protect the assets of the organization to be replaced by a dynamic and proactive vision aimed at achieving the organization's mission, goals and objectives under any stress or surprise. The new risk manager must look beyond the organization's frontiers to include all the economic partners, indeed all the stakeholders, of the organization.

With this rapid evolution of the risk domain comprising more non insurable risks, adopting new approaches has become necessary to be an effective risk manager. Defining

\begin{footnotesize}
\end{footnotesize}
the competencies required for this position is a daunting task, let alone finding the individuals that possess them. This article is a combined set of guidelines appropriate for all sorts of organizations, public and private. It categorizes the risk manager's competencies into four areas, three of which are common to all the operations and the last of which reflects the specific requirements for the unique business sectors.

Businessline(2003) in its article “Performance evaluation vital for success”, from Thiruvananthapuram, highlights the points that of Mr.S.Gopalakrishnaan, chief operating Officer, Infosys Technologies in today's business context, with the focus on performance increasing, businesses must have systems that strongly differentiate for performance so that the organisation's best performers get significant rewards. He made this observation while addressing the inaugural session of 'Kalpatha 2003', a national seminar on 'competency management' organised by the Department of Business Administration, College of Engineering, Thiruvananthapuram.

In his presentation titled 'Best practices in HR', Mr Gopalakrishnan emphasised that organisations must understand the best practices that exist in the HR domain and must then improve on them before implementing the same. Other speakers included Mr R.R. Nair, Advisor to Unilever, who spoke on 'Competency development', Mr Bharat Grover, Director, Vernalis India, who spoke on 'Competency mapping', and Dr Uma Jain of the Academy of Human Resources Development-Ahmedabad, who spoke on 'Developing values as a competence'.

Charles O Ecbo (1999)\textsuperscript{38} in his study “Skills, knowledge, competences for managing construction refurbishment works”, says that an appropriate body of management skills and knowledge for construction refurbishment established: a skills and knowledge inventory. Of the 75 types of management skills and knowledge, six most important are leadership communication, motivation of others, health and safety, decision making, forecasting and planning.

Refurbishment manager’s job as defined by their application of skills and knowledge are on the whole homogeneous, with some overlap across the level of the management and types of organizations and this dispels the view that the management tasks are totally different across the management strata. A comparison of the relative importance of management, skills, knowledge for refurbishment, and management skills for general construction shows that skills knowledge forecasted with planning, managing conflict and crises, tenant welfare and team building, decision making are higher than the general construction management, reflecting the uncertain nature and relativity, higher levels of risk associated with the construction refurbishment works.

Jane Turner and Sharon Mavin (2007)\textsuperscript{39} in their study on “What can we learn from senior leader narratives? The strutting and fretting of becoming a leader”, aim to explore

\textsuperscript{38} Charles O Ecbo “Skills, knowledge, competences for managing construction refurbishment works”, Construction management and economics, Vol 17, 1999, pp:29 - 43

subjective life histories and leadership journeys of senior leaders, drawing upon elements of an authentic leadership framework (life trigger events, values and emotions). The paper surfaces partial life histories and the often unheard of individual experiences of becoming a leader, offering stories to others as a media for learning and extending authentic leadership theory.

This paper draws upon a qualitative empirical study engaging 22 UK senior leaders in semi-structured interviews, involving a life-history approach to generate subjective narratives of how individuals establish and sustain leadership. They found that the empirical data highlights that elements of authentic leadership theory resonate in practice. The senior leaders’ life histories and in particular negative trigger events are significant to their approach as leaders. The values of honesty and integrity are important to the leaders, with some able to sustain their values uncompromisingly. The leaders openly expressed emotions and vulnerability when re-telling their stories, but whether they do so as leaders in relationships with others, requires further research. Authentic leadership theory may be over simplified in terms of emotion and vulnerability in practice. The paper offers empirical data from UK senior leaders, highlighting the unheard of strutting and fretting of leadership and contributing empirical research to authentic leadership theory.

Jutta Rasp et.al(2007)\textsuperscript{40} in their study on“European competency mapping”, solve the

\textsuperscript{40} Jutta Rasp,Bill, UWE Behringer, Eric Maiser, ADRIA project report, 6th Frame work programme of European commission, 2007, pp:1-3
puzzle on European competency in the field of advanced displays- that is the short way of describing what the adria network has tried to accomplish with its competence mapping work package.

The authors also discuss about the is strong need for knowledge exchange, technology transfer from research to industry and collaboration among all the European players in the field of advanced displays. For companies or research organizations encountered a specific technical problem, it is hard to find out the best solution available. They might then decide to “reinvent the wheel”. This paper specifically applies for small and medium size organizations, which with neither have budget nor dedicated personnel to contact comprehensive literature researchers, they do not have an extensive network of contacts with any company all over Europe.

Obiols Albiñana L, et.al.(2005) in their study on “Mapping levels of practice in the advanced practitioner workforce” aims to assess the validity for self-assessed competence in the experienced specialist and advanced practitioner workforce, using the Advanced Competency Framework. The Advanced Level Framework (ALF) has been developed and previously described. Using this framework, the researchers collected data on the self-assessed competence and level of practice among the practitioners in the selected specialist interest groups.

The ALF comprises 34 competencies clustered into 6 key competency domains: "Expert Professional Practice", "Building working relationships", "Leadership", "Management", "Education, Training & Development" and "Research & Evaluation". As a result of the study, Data were obtained for 390 pharmacists. There were 66.9% females. The mean number of years qualified was 18. 22.8% were represented by Specialists in Training, 39.7% were Experienced Practitioners and 34% were Leading Edge Practitioners. HOMALS analysis (fig.1) showed that Specialists in Training tended towards "Foundation" (lowest) level, while Experienced Practitioners clustered around "Excellence" and Leading Edge Practitioners clustered around "Mastery". Used with the frequencies analysis, the authors estimate that of the advanced practitioner workforce sampled, 14% would fit the description for "Consultant".

Finally the authors conclude that using this type of analysis, the authors are able to describe levels of practice and associated levels of competence for these practitioners, and hence provide a map that will identify Advanced Practice and Consultant level practice for pharmacist practitioners.

Victoria Traynor &Patrick Crookes(2008) in their “Competency standards for dementia care” have pointed out that regardless of where people with dementia are located in the health care system, nurses provide the bulk of care, and competent staff do this most effectively.

42 Victoria Traynor &Patrick Crookes “Competency standards for dementia care” Dementia collaborative research centre, The University of New South Wales, 2008, pp:1-3
Finally they conclude that there are many reports, books, nursing journal articles and websites concerning dementia care. Some of them are supported by empirical evidence and some are constructed on the basis of interviews with a wide range of people as well as knowledge from an expert panel. Many of the publications tend to treat dementia care workers inclusively and this leads to a lack of differentiation between the different levels of nursing care that exists. The development of different levels of competency standards in dementia care may also become a useful tool for defining the different roles of nurses in dementia care. The review has highlighted the necessity and potential for developing dementia competent staff and organisations and a multi-disciplinary dementia competency framework. These two approaches must work together in meeting the needs of people with dementia.

James Thomas Kunnannatt (2008) in his study “Emotional intelligence: theory and description – a competency model for interpersonal effectiveness” points out the brain theory and recent business research to explain emotional intelligence and make a case for its centrality in the successful workplace. The author describes a potential training model to develop EI, seeing it not as an abstract concept but as a set of competencies that can be improved with good training.

--

The author highlights that ‘‘If a HR manager wants to invest in training that will raise the EI of employees, then the areas to work on are self-awareness and self-regulation as well as social awareness and social influence. ’’ The author suggests that building empathy and influence are the last stages in the EI development program, and can only be achieved through specialized and sophisticated training. It is worth the effort, though, because the best managers will always display both of these things, along with the associated traits of assertiveness, communication and negotiation.

Farah Naqvi (2009)\textsuperscript{44} in his study on ‘‘Competency Mapping and Managing Talent’’, traces that the performance of companies depend mostly on the quality of their human resource. For obvious economic and business reasons, organizations have always been concerned about the competence of its people. In this the author said that to delves deeper into the concept of competency, tracing its history and its role in the present context. The paper explains how the concept has constantly evolved over the years, its applications in human resource management, and development in the present scenario. It also aims to study its future prospects in the light of other emerging areas like talent management. The paper proceeds with the examples of companies, which have successfully integrated competency-based systems in their HR initiatives.

Saidas Ranade; Cassio Tamara, Edgar Castiblanco, Anibal Serna(2010)\textsuperscript{45} in their study on “Mapping competencies-Application of a visual method to determine the abilities of engineers to reveal new and useful insights”, determine that competency mapping has taken on a new urgency as the increasing age of engineering professional. The increasing median age of engineering professionals worldwide threatens a skill shortage as attrition and early retirements take veteran engineers and accumulated knowledge out of the workplace.

The aging of workforce create the need to find fast and reliable methods and tools for mapping competencies for professionals to identify the missing knowledge and the steps taken to replace it. For engineering students exploring careers in manufacturing sectors being knowledge about the software tools need will give them a competitive advantage.

2.2 CONCLUSION

Competency mapping has attracted many researchers and practitioners throughout the world and especially in India. There has been continuous research and contributions in the field of competency mapping. It is evident from the reviews presented that attempts have been made to examine and develop the intricacies of competency mapping to excel in the performance. None of these studies have however made an effort to analyze the

\textsuperscript{45} Saidas Ranade; Cassio Tamara; Edgar Castiblanco; Anibal Serna(2010)\textsuperscript{45} “Mapping competencies-Application of a visual method to determine the abilities of engineers to reveals new and useful insights”, Mechanical Engineering, Vol 132, 2, ABI/INFORM Global, Feb 2010, pp:30-34
competency mapping in the Salem construction industry.

The present study is therefore focused on studying the competency relating to success in the field of construction industry in the Salem District of Tamilnadu, India. The present study aims to study the need for a successful career in the construction industry. The study also analyses the factors influencing the building contractors of Salem in the construction industry. The study also identifies the major problems encountered by the Civil Engineering contractors of Salem, identifies the risks involved in building contracts. The study also suggests better ways and means for superior performance in the industry.