CHAPTER- 2

LITERATURE REVIEW

2.1 Introduction
This chapter presents the review of various studies in the area of employability and its various attributes that collectively impact the employability level of a management graduate. Firstly, the definition, evolution, stages and theories of ‘employability’ have been discussed. Besides, as the present research is aimed to develop an employability model, a separate section is dedicated to existing employability models. Lastly, the literature has been classified based on their year and geographical location. It also highlights the research gaps.

2.2 Evolution of Employability concept
The term ‘employability’ has been coined by an economist, Beveridge (1909) in a book titled “Unemployment: A Problem of Industry” which focused on the issue of underemployment (Mansfield, 2001). Sanders and De Grip (2004) mentioned that the meaning of employability has changed continuously from the last three decades due to changes in the labour market conditions and government policies. Kanter (1989) said that the focus should move from ‘securing employment’ to ‘securing employability’ which keeps an individual in demand by current or future employers.

Also, it is argued that the focus of employability as mainly a supply side or individual construct has dominated the literature and governments’ responses to employability (Hillage & Pollard, 1998; McQuaid & Lindsay, 2005; Sanders & De Grip, 2004). The point is stressed by Peck and Theodore (2000) who contend that even though attention to employability is relatively novel, “the kind of supply-side fundamentalism that it signifies most certainly is not”. Supply side conceptions of employability generally focus on narrow definitions which, according to Bridgstock (2009), underline the skills and dispositions that individuals capitalize on to make themselves marketable to potential employers while mainly focusing on short-range employment outcomes. In this view, according to Nielsen (1999), employability conceptually “expresses how well the individuals’ competencies and skills meet the requirements of the labour market, e.g., if it is possible to be employed with the present skills and competencies”. This approach implies that individuals lack employability as a result of their own readiness and work motivation and not because of the
lack of demand for work from employers in the labour market or as a result of limited job opportunities (Hartshorn & Sear, 2005).

Other attempts, more in line with Gazier’s (2001) interactive version of employability, have indicated a more holistic perspective to employability by stressing contextual factors such as the effect of labour market conditions and employer behavior over and above individual characteristics, in other words, both demand and supply side aspects of employability (Gore, 2005; McQuaid & Lindsay, 2005).

2.3 Employability Stages

The term “employability” has moved through various stages and these can be classified as follows (Gazier, 2001):

2.3.1 Dichotomic Employability

It started in 1900s till 1950s in UK and US. It is the simplistic version of employability and it expressed employability as a dichotomy relating to ABLE-BODIED EMPLOYEES. It focused on those who are unable to work and in need of relief such as elderly and handicapped. There is also a criticism to this stage that no consideration is given to educational qualification of the individual. Also, labour market context was not considered in this stage.

2.3.2 Socio-Medico Employability

It started during 1950s in US, UK, Germany and other countries. It has focused on disadvantaged individual such as deficiencies in vision, hearing, motor capacity post-war period. Scale has been developed that measured individuals as being more employable or less employable based on deficiencies identified.

2.3.3 Manpower Policy Employability

It started mainly in US in 1950s and 1960s. It is an extension of previous approach. It has focused on social and physical deficiencies as well as on mobility (whether individual had
driver’s licence or police record) and presentation (whether individual were visibly drug users). The emphasis was on gap between labour market requirements and individuals’ knowledge, attitude and skills. The policy-makers primarily focused on employees’ attitudes towards employment in general and on the development of their self-perception during their career.

2.3.4 Flow Employability

It started mainly in France during 1960s. It is mainly demand-side approach which emphasized on the ease of access of the jobless to employment within local and national economies. At this stage, Employability was defined as “the objective expectation i.e. what is the probability that a person looking for a job can find one”. From 1970, the focus shifted from person’s attitudes to the individuals’ occupational knowledge and skills. Towards the end of 1970s, becoming or remaining employable became very important to individuals since it was hard to find work in the economic recession of the time. Also, the concept of “transferable skills” was introduced.

2.3.5 Labour Market Performance Employability

It started towards the end of 1970 and this approach developed internationally. It has focused on measurable labour market results founded on their human capital. Such measures included probability of obtaining employment, probable duration of jobs in terms of hours worked an probable wages.

2.3.6 Initiative Employability

This approach started in 1980s and underlined individual initiative. It says that successful career development requires the development of those attitudes and skills which are important for obtaining career success as well as being motivated to search for and obtain better jobs in other companies. Individuals need to develop transferable skills in order to be flexible and mobile across job functions and industries. Employability is viewed as “the marketability of cumulative individual skills” which is measure by human and social capital. (Gazier, 2001). Human capital refers to knowledge, skills and learning ability. Social capital refers to size and quality of support network that a person is able to organize.
and capitalize on. Also, this individualistic employability concept subsequently developed into a “meta-characteristic” that mixes skills, attitudes and knowledge to find labour market value of individuals.

2.3.7 Interactive Employability

It started during 1990s. While initiative employability was more individually focused, interactive employability encompassed a broader perspective, thereby including policymakers and employers as shared stakeholders. It focused on interactive and collective dimensions of employability. The demand for labour at local and national level is also considered. It says that ‘Context’ factors are important such as labour market conditions and demands, location of labour markets, employer preferences, and other barriers to employment.

2.4 Employability Theories

Gallagher & Sverke (2005) states that nature of employment has changed from traditional or on-going employment to contingent or fixed-term employment contracts. Due to this shift, there is impact on applicability of existing commitment theory and research. It may influence the relative importance of various ‘foci’ of employment commitment. There are three theories of employability (cited in Paadi, 2014) which are as follows:

2.4.1 Consensus Theory

This theory deals with the commonalities within social groups with respect to social norms or cultural beliefs. It is based on the belief that generic skills should be instilled at tertiary level as this will enhance or boost employability of graduates rapidly in the corporate sector. Therefore, this theory tends to make academicians responsible for instilling skills among students through appropriately designing the curriculum and selecting the right pedagogical methods. It can be said that this theory puts blame of unemployable youth on academia or university environment.

2.4.2 Conflict Theory
This theory emphasises on the role of different stakeholders of employability like employer, academicians and employee all together. There has always been an ongoing debate on contribution of employers or academicians towards imparting sufficient skills among the graduates to make them employable through teaching and training. This Theory argues that the employers should take the responsibility of giving workplace experience to graduates to make them employable rather than just directing the responsibility to academicians alone. Both consensus and conflict theories have their own limitations as there are other pre-university environments which have not been focused with respect to acquisition of skills among graduates like family, society, school and workplace.

2.4.3 Human Capital Theory

This theory argues that education is important for increasing both productivity and job performance. It focuses more on knowledge rather than just acquiring generic skills in order to be successful in the workplace. Theoretical or technical knowledge along with skills are required to perform effectively in the job. Education do provides skills and abilities required for performing job, and therefore more educated the person is, more successful he/she will be in labor market in terms of opportunities and income.

2.5 Attributes of Employability

It is accepted that employability is based on various individual attributes (Hillage & Pollard, 1998; Fugate & Kinicki, 2008; Knight & Yorke, 2002; Clarke, 2008; Harvey, 2005). Review of literature relating to employability attributes provided a greater understanding of what it actually consists of and what does employers look for in employees. Summarizing the several research studies on employability attributes provides a brief overview of sub-attributes of employability.

The findings of study conducted by Karakaya & Karakaya (1996) suggested that all businesses seek to hire well-rounded students. Using literature search, the authors finalized various educational attributes that they included in a survey instrument to be mailed to a broad selection of businesses in their area. Their analysis revealed that four factors were more important than the others. These were: (1) knowledge of subject area; (2) working cooperatively in a group; (3) writing skills; and, (4) verbal skills. Their factor analysis led to four distinct expectations that businesses had of an ideal business education. The authors identified them as: (1) research skills; (2) interpersonal skills; (3) basic writing and verbal...
skills; and finally, (4) ascertained skills, the latter formulated by combining knowledge of subject area, internship experience, and quantitative skills.

Anderson (2002) in his study titled “Employers’ Expectations for entry-level employees in Prince George’s County, Maryland” assessed the employer’s perceptions of Prince George’s County, Maryland regarding the employment skills needed at the entry level by non-college bound high school graduates of 21st century and also to find their perception whether the students possess for those needs adequately. Based on the 140 responses received from the members of the Prince George’s Chamber of Commerce (PGCOC), generic workplace skills i.e. attendance, positive attitude, honesty, carries share of work, works well with co-workers, punctuality, follows intent of oral directions and instruction are identified as the most important skills. The overall basic academic skills were mostly rated as “Somewhat important”. However, specifically, communications skills within academic skills were given much importance. The findings show that as per employer’s perception, level of competency in many employees is less compared to the level of skills required for entry-level employment. The author recommends teaching generic work skills in academic courses since elementary school and collaboration of employers-school to train the employees on generic work skills.

Williams (2003) in his study titled “What employer’s want: Skill inventory of selected agri-marketing professionals” summed up opinion of agri-marketing professionals towards the transferable skills needed for a successful career in agri-marketing. Results indicate that ethics, decision making abilities, communication skills, interpersonal skills and motivation/initiative are the most desired values for a future agri-marketing professional. Also, it has been stated that internships are important for future agri-marketing professionals. A student should participate in minimum two internships prior to graduation and preferably with an agricultural company (such as Monstanto, John Deere, Pioneer).

Bennett (1999) found that in today’s time, the professional needs an understanding of all the functional areas of an organization, and the information generated in each area.

The National Association of Colleges and Employers stated top ten personal characteristics employers seek in job candidates as per the findings from their Job Outlook '99 survey (1999). These are communication skills, work experiences, motivation/initiative, teamwork
skills, leadership abilities, GPA/academic credentials, technical skills, interpersonal skills, analytical skills and ethics.

The US Department of Labor, which supported the ASTD work, a year later, established SCANS. American Society for Training and Development - ASTD (1990) and the Department of Labor's Secretaries Commission have done important works in outlining the proficiencies that employers require of their prospective employees under Achieving Necessary Skills - SCANS (1991). Expanding on Carnevale's work, the SCANS report broadened the list of essential skills to 36 that included 3 foundational and 5 competency skills groupings as shown in Table 2.1.

Table 2.1: SCANS Foundation Skills and Competencies (Source: SCANS, 1991)

<table>
<thead>
<tr>
<th>FOUNDATION SKILLS</th>
<th>COMPETENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Skills:</strong></td>
<td><strong>Resources:</strong> Allocate time, money, materials, space and staff</td>
</tr>
<tr>
<td>Reading, writing, arithmetic and mathematics, speaking and listening</td>
<td><strong>Interpersonal Skills:</strong> Work on teams, teach others, serve customers, lead, negotiate, and work well within diversity</td>
</tr>
<tr>
<td><strong>Thinking Skills:</strong></td>
<td><strong>Information:</strong> Acquire and evaluate data, organize and maintain files, and interpret and communicate</td>
</tr>
<tr>
<td>Ability to learn, to reason, to think creatively, and to make decisions</td>
<td><strong>Systems:</strong> Understand social, organizational, and technological systems</td>
</tr>
<tr>
<td><strong>Personal Qualities:</strong></td>
<td><strong>Technology:</strong> Select equipment and tools, apply technology to specific task, and troubleshoot</td>
</tr>
<tr>
<td>Individual responsibility, self-esteem and self-management</td>
<td></td>
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</table>

There have been studies which found the reasons for not hiring youth for entry-level jobs or youth not becoming employable. Zemsky’s (1994) study felt that generally they lack discipline, good work attitudes, work ethics, and communication skills. Chamer (1988) listed various reasons as shown in Table 2.2 (cited in Williams, 2003).
Table 2.2: Reasons for not hiring for entry-level jobs

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Reasons for not hiring</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Low grades and low levels of academic accomplishments</td>
</tr>
<tr>
<td>2</td>
<td>Poor attitudes, lack of self-confidence</td>
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<tr>
<td>3</td>
<td>Lack of goals, poorly motivated</td>
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<tr>
<td>4</td>
<td>Lack of enthusiasm, lack of drive, little evidence of leadership potential</td>
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<tr>
<td>5</td>
<td>Lack of preparation for the interview</td>
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<tr>
<td>6</td>
<td>Excessive interest in security and benefits, unrealistic salary demands and expectations</td>
</tr>
<tr>
<td>7</td>
<td>Inadequate preparation for type of work, inappropriate background</td>
</tr>
<tr>
<td>8</td>
<td>Lack of extracurricular activities</td>
</tr>
<tr>
<td>9</td>
<td>Inadequate basic skills (reading, writing, math)</td>
</tr>
</tbody>
</table>

Hollenbeck (1994) identified 23 competencies for becoming employable as basic reading; basic verbal/speaking; written, listening, and math skills; honesty/integrity; willingness to learn throughout life; responsibility/reliability; initiative; motivation; attendance; flexibility; punctuality; problem solving skills; common sense; time management; consistently accurate/conscious of quality; understands and embraces mission and the “big picture”; taking ownership; interpersonal skills; teamwork skills; works well with coworkers; customer orientation; interpersonal skills; and respects diversity.

Shuayto (2001) categorized the skills to be employable as soft skills and hard skills. Soft skills include accountability, interpersonal skills, oral communication, teamwork, ethical values, decision making and analytical skills, and creativity and critical thinking. Hard Skills include ability to assimilate new technologies, computer skills, written communication, project management and presentation skills.
Organization for Economic Co-operation and Development (OECD) (2005) published a report “The Definition and Selection of Key Competencies”. This report mentioned three key categories as: 1) the ability to use tools, including language, symbols, text, knowledge, information, and technology interactively; 2) the ability to interact and relate well with others, to cooperate and manage and resolve conflicts in heterogeneous groups; and 3) the ability to act within the big picture, form and conduct life plans and personal projects, and assert rights, interests, limits, and needs. OECD has further identified nine competencies under these three categories. These competencies were the ability to: 1) speak, read, write, and compute; 2) identify, locate, access, use, evaluate, and organize knowledge and information; 3) use and access technology beyond basic skills; 4) initiate, maintain, and manage personal relationships and to exhibit empathy and emotion while respecting and appreciating the values, beliefs, and cultures in a multicultural environment; 5) work in teams, and present ideas and listen to other opinions, and negotiate and make decisions that allow alternative opinions; 6) manage and resolve conflicts; 7) make decisions and solve problems; 8) create a personal identity and give meaning to one's life and to have a future orientation and awareness for the environment; and 9) understand systems and the direct and indirect consequences of one's actions and to be able to choose between alternatives in relation to individual and shared norms.

Heimler (2010) conducted a study that focused on eight employability dimensions which are: (1) literacy and numeracy: ability to read (locating, understanding and interpreting written information), ability to write (communicating thoughts, ideas, information and messages in writing such as letters, direction, report and graph), ability to speak (organizing ideas and communicating orally), ability to listen (receiving, interpreting and responding to verbal messages and other cues), ability to perform basic mathematic procedures (solving practical problems by selecting from a variety of mathematical techniques), (2) critical thinking, (3) management, (4) leadership, (5) interpersonal, (6) information technology, (7) systems thinking skills, (8) work ethic disposition.

Conference Board of Canada (2001) published a report “Employability 2000+” which describes the various skills required to enter, continue and flourish in the job market. The report classified the skills under three categories. First category talks about Fundamental skills that relates to communication skills, information management, problem solving, comfortable with numbers. Second category talks about Personal management skills that relates to positive behavior and attitude, flexible, work safely and ready to learn. Third category talks about Teamwork skills that relates to ability to work with team members.
Natriello (1989) conducted various surveys and the strongest theme came out that employers do give importance to employee attitude. Few of these positive traits are trustworthiness, desire to learn and advance, flexibility, self-confidence etc. The study also listed negative traits for which employees are counseled or terminated. Few of these negative traits are lack of career goal, absenteeism.

2.6 Existing Employability Models

Besides differing perspectives on definition of employability, different employability scales have been developed. This section discusses the number of employability models that approach the concept from different perspectives viz. career self-efficacy, competency, individual attributes, environmental support etc.

2.6.1 Beatrice Van der Heijden (2002)

Heijden (2002) has found certain prerequisites essential for life-long employability. For the study, sample is taken from eight different organizations and it has been classified based on respondent’s age i.e. starters (20-34 years), middle aged (35-49 years) and seniors (50+ years) and level of functioning in the organization (middle level and higher level). The author highlighted various parameters to be taken into account while calculating or assessing potential employability of individual and these parameters are actual job transfer, labour market aspects organizational characteristics, employee willingness and managerial perceptions & attitude. Also, his study concluded that older the employee, the lower is his/her employability. For the starters, possession of large number of professional skills, acknowledgement by the supervisor and faith in the growth potential by the supervisor is must to be qualified for a transition to another job. However, for seniors, the opinion held by their supervisor with respect to his/her degree of adaptability is a critical factor of employability.
2.6.2 Fugate, Kinicki and Ashforth (2004)

Fugate et al (2004) conceptualized employability as psycho-social construct where it is a set of three dimensions namely, personal adaptability, career identity and social & human capital.

*Personal adaptability* is the willingness and ability of individuals to alter their knowledge, skills, abilities, dispositions, behaviours and other personal factors in order to meet environmental demands. Various personal constructs integrated within adaptability are optimism, openness, propensity to learn, self-efficacy, internal locus of control etc. The second dimension of employability model, *career identity* refers to how individuals define themselves within a certain job context. The various constructs under career identity are role identity, occupational identity and organizational identity. The third dimension is *human and social capital*. Human capital refers to the variables like age, education, training, skills, work experience and knowledge which affects an individual’s career advancement. Whereas, Social capital refers to the size and quality of the support network that an individual possess to capitalize on. McArdle et al. (2007) conducted a longitudinal study with unemployment context to test this model empirically. The researchers found support for this employability model.

2.6.3 Fugate and Kinicki (2008)

Fugate and Kinicki (2008) offered a dispositional approach to employability. Their employability model builds on the theoretical foundation of Fugate et al. (2004) and Fugate (2006). Dispositional employability is viewed as a multidimensional and psycho-social construct which has been defined as a collection of individual characteristics that help employees to proactively adapt to their job or career environment. Table 2.3 provides the various dimensions of this model along with their definitions.
Table 2.3: Dimensions of dispositional employability (Source: Fugate and Kinicki, 2008)

<table>
<thead>
<tr>
<th>Dimension of employability</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>Openness to change at work</td>
<td>Individuals that are open to changes at work are receptive and willing to change, and/or feel that changes are generally positive once they occur.</td>
</tr>
<tr>
<td>Work and Career resilience</td>
<td>Individuals with work and career resilience possess combination of attributes such as (i) are optimistic about their career opportunities and work (ii) feel that they have control over the destiny of their careers (iii) feel that they are able to make genuinely valuable contributions at work</td>
</tr>
<tr>
<td>Work and Career proactivity</td>
<td>People’s tendencies and actions to gain information potentially affecting their job and career</td>
</tr>
<tr>
<td>Work Identity</td>
<td>Degree to which individuals define themselves in terms of their job, organization or industry. It is characterized by the interest in what one does, how well it is done and the impression of others.</td>
</tr>
<tr>
<td>Career motivation</td>
<td>Taking control of their own career management and setting of work/career related goals.</td>
</tr>
</tbody>
</table>

2.6.4 Pool and Sewell (2007)

The authors have given Key to Employability model (Figure 2.1). They defined employability as a set of knowledge, skills, understanding and personal attributes that helps an individual to select occupation of their choice and be successful in the same. Their model is based on five components which are (i) subject knowledge, understanding and skills, (ii) generic skills, (iii) emotional intelligence, (iv) career development learning and
(v) work and life experience. It has been suggested to give opportunities to the students to access and develop above mentioned five components and then reflecting and evaluating these experiences will result in increased level of self-efficacy, confidence and self-esteem, which are critical connections to employability.

Figure 2.1: Key to Employability Model (Source: Pool and Swell, 2007)

2.6.5 Van Dam’s (2004)

The author examined various antecedents and consequences of ‘employability orientation’ using a process model. The term ‘employability orientation’ has been defined as the attitude of an employee towards the various interventions designed by organization in order to improve employee’s performance which in turn will improve organizational performance. The antecedents of worker’s attitude towards career changes and development actions are individual orientation & perception of employment circumstances, tenure in the organization, career development support and perceived organizational support. Personality traits like openness (being open to any change) and Initiative (actions those are self-started and proactive) are viewed as important precursors to employability orientation. The author
also highlighted the importance of mediating variables such as career anchors and organizational commitment. These mediating variables play an important role in mediating the relationship between employability orientation and antecedents variables. The results of the study confirmed that employability orientation is positively related to initiative, openness and career anchors of variety & managerial competence; and is negatively related to continuance commitment, tenure and career anchors of security & technical competence.

2.6.6 Van der Heijde and Van der Heijden (2005)

The authors have developed an employability model based on the theoretical framework of Van Dam (2004) and Fugate et al (2004). The model given is domain-independent and has five dimensions, which are (i) occupational expertise (ii) anticipation and optimization (iii) personal flexibility (iv) corporate sense (v) balance. Occupational expertise refers to the domain-specific knowledge and skills. The next two dimensions i.e. anticipation & optimization and personal flexibility are related to adapting to change. These are important for graduates to proactively prepare themselves for changes and uncertainties in work environment. The dimension corporate sense is related to networking, social skills etc. The last dimension ‘balance’ refers to maintaining balance between employer’s interest and personal interest. The authors supported their model in an exploratory study.

2.6.7 Coetzee (2008)

The author focused on the importance of psychological career resources or meta-competencies as it aids in mastering the specific competencies required for enhancement of employability. The PCR (Psychological career resources) model is based on Coetzee (2007) which comprises of four broad dimensions such as career preferences& career values, career enablers, career drivers & career harmonizers. The author defined meta-competencies as the skills and abilities which help people to be self-directed learner and proactive in managing their career. These skills and abilities are like identity awareness,
behavioural adaptability, self-esteem, emotional intelligence and sense of purpose. Career preferences and career value leads to the decisions taken about career. Career enablers are transferable skills like creative skills. Career drivers are defined as motivation and commitment level, self-efficacy etc. The career harmonizers relates to the psychological attributes that help to increase flexibility and resiliency.

2.6.8 Bridgstock (2009)

The author has given a conceptual model that provides insight into the attributes required for employability of graduates. The employability skills are classified as career management skills (self-management skills and career building skills) and knowledge (generic and domain-specific skills). The model is depicted in Figure 2.2. First, Self-management skills are referred as individual’s perception and judgment of their own values, abilities, interest and goals. Second, Career building skills includes the skills required for identifying, obtaining and maintaining job; and finding and using data about careers, market. Last, Generic skills refer to the transferrable skills and domain-specific skills are the skills required to perform specific job effectively.
The authors have given Graduate Employability Model. The model contains various individual attributes required to be employable and they are depicted in Figure 2.3 and the definition of attributes are shown in Table 2.4. In this model, human capital, generic and discipline-specific skills are not included in the development of a measure of graduate employability and they are taken as a given in an individual.
Figure 2.3: Graduate Employability Model (Source: Bezuidenhout and Basson, 2011)
Table 2.4: Graduate Employability Model: Definitions of dimensions (Source: Bezuidenhout and Basson, 2011)

<table>
<thead>
<tr>
<th>Employability dimensions</th>
<th>Employability sub-dimensions</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career self-management drive</td>
<td>Career self-management drive refers to a tendency to proactively manage one’s career by regularly collecting career-related information so as to enhance knowledge of the self and the external environment, including the world of work.</td>
<td></td>
</tr>
<tr>
<td>Cultural competence</td>
<td>Cultural competence refers to a person’s effectiveness in understanding and effectively working with people across different groups.</td>
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<tr>
<td>Personal dispositions for employability</td>
<td>Career-related core self-evaluations</td>
<td>Career-related core self-evaluations is a broad, higher-order trait consisting of (a) self-esteem, (b) locus of control, (c) generalized self-efficacy, and (d) emotional literacy, and relate to the basic evaluations that people make of themselves regarding their self-worth within the career context. Emotional literacy in this context is the adaptive use of emotions and refers to the extent to which individuals perceive themselves as able to recognize, understand and manage emotions in themselves and in other people.</td>
</tr>
<tr>
<td></td>
<td>Entrepreneurial orientation</td>
<td>Entrepreneurial orientation refers to a preference for innovation and creativity, a propensity to take risks, a need for achievement, tolerance for ambiguity, and a preference for autonomy in exploiting opportunities that exist in the career environment.</td>
</tr>
<tr>
<td></td>
<td>Sociability</td>
<td>Sociability refers to being open to establishing and maintaining social contacts and utilizing formal and informal networks to the advantage of one’s career.</td>
</tr>
<tr>
<td></td>
<td>Career resilience</td>
<td>Career resilience is a personal disposition that facilitates a high degree of adaptability, flexibility, self-confidence, and competence regardless of adverse career circumstances.</td>
</tr>
<tr>
<td></td>
<td>Proactivity</td>
<td>Proactivity refers to a person’s disposition towards engaging in active role orientations and implies future oriented and self-initiated action to change and improve oneself or one’s situation.</td>
</tr>
<tr>
<td></td>
<td>Openness to change</td>
<td>Openness to change refers to the extent to which individuals seek out new experiences and are willing to consider new ideas.</td>
</tr>
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</table>

2.6.10 Sirajul Haque (2013)

The author has proposed a model for employability to improve the abilities and potential of university graduates and that leads to reduction in unemployment status in the country. The author has studied various secondary sources of data like annual reports of Ministry of human resource, higher education commission, academic journal of human resource management and employability programs introduced by three countries like Singapore,
Australia and Malaysia. The model proposed is based on the employability programs of Singapore and Malaysia. The proposed employability model for university graduates is represented in Figure 2.4. In order to implement the employability model, the author suggests that university graduates should be placed under employability program after their graduation. In the first two months, they will build upon the foundation competencies. For the next two months, they will learn industry specific competencies. Finally, in the last two months, they will be trained for job-specific competencies. The drawback for the model is that the author has not listed any competency as such.

Figure 2.4: Employability Model for University Graduates (Source: Haque, 2013)
2.6.11 Rajnish Kumar Misra and Prachee Mishra (2011)

The authors have developed an instrument to measure employability skills of individuals who apply for jobs in the industry. The author has taken the feedback of 348 respondents and used the techniques EFA and CFA in order to develop an employability scale. The author has given a 19-items six factor employability model. The six factors are like skill upgradation and career growth; task-orientation among employees; blue-eyes boy of bosses i.e. employability is known to superiors and professionals through proven track record; professional networking; concern for time; and love for challenge in taking assignments. The author mentions that the instrument can be further validated in order to make it more robust.

2.6.12 K M Nagendra, S Radha, C G Naidu (2013)

The authors have given conceptual framework of Attitude-Skill-Knowledge (A-S-K) model for the purpose of enhancing employability skills through training and vocational training program. This framework is based on the Capability Maturity Model (CMM) that is used for software development. It has got 3 levels to be achieved during 3 years of Technical and Vocational Training (TVT) program. It is represented in Figure 2.5. The authors mention that smaller sample size could be the limitation of the study.

The authors conducted a study to validate a model to measure employability skills of engineering students. Confirmatory factor analysis has been used on a sample of 280. The various factors of the measurement model of employability skills are Communication, teamwork, leadership, long-life learning & information management, critical thinking &
problem solving, entrepreneurship, ethic & moral, technology utilizing skills and social skills. This study is limited in the context of education in Malaysia. Further studies may be done in order to validate the model using larger sample size.


The authors tested the reliability and validity of Perceived Employability Scale (PES). This scale is used for testing career self-efficacy. This scale includes four factors. The first factor has been referred as “Interpersonal Efficacy”. It includes items which are used for measuring person’s belief in one’s ability to get along with co-workers and supervisor. The second factor is “Information gathering and Barrier removal Efficacy”. It includes person’s belief in one’s ability to finding job opportunities, removing potential barriers, learning new information about job/career. The third factor is “Persistence”. It refers to the items required for securing a job/career. The fourth factor is “Goal-setting Efficacy”. It refers to planning well in advance for future. The empirical results of the study suggest that PES is valid and reliable instrument to measure career self-efficacy of low-income women from diverse backgrounds. However, the author recommends conducting further research to check validity of instrument for larger sample size.

2.6.15 Law & Watts (1977)

The authors developed DOTS model of employability that is used for career guidance and career development (Figure 2.6). This framework has been used in higher education for long, particularly in the UK. This framework is based on following four components:

a) Self-awareness
b) Opportunity awareness
c) Decision-making
d) Transition learning
Self-awareness is the individual’s ability to identify and articulate own motivations, skills and personality. Second, opportunity awareness is the ability to research and being knowledgeable of opportunities available. Third, decision-making is the ability to make a right plan for career and taking right decision accordingly. Last, transition learning is related to seeking and securing opportunities/job.

Figure 2.6: DOTS model of employability (Source: Law and Watts, 1977)

2.6.16 Peter T Knight and Mantz Yorke (2002)

The authors conducted a study to identify how the curriculum helps the graduates to be employable. It lists what a graduate can learn while pursuing studies or degree course that is further required to be employable. They have given USEM model (Figure 2.7) which is an acronym for:
a) Understanding  
b) Skills  
c) Efficacy beliefs  
d) Metacognition

Understanding is related to appropriate subject knowledge, apprehension and application of same. Second, Skills covers both subject specific skills and generic skills. Third, Efficacy beliefs relate to self-theories like awareness of own self and abilities. Last, Meta-cognition is the individual’s ability to reflect and regulate own learning and behavior.

Figure 2.7: USEM model (Source: Knight and Yorke, 2002)
2.6.17 Andrew Rothwell, Herbert I, Rothwell F (2008)

The author developed a self-perceived employability matrix for business undergraduates in three UK universities. This matrix is built on four components which interact with each other, namely (i) “My University” that deals with brand image and reputation of the university; (ii) “My field was study” that deals with demand of individuals with my particular specialization; (iii) “The state of external labour market” that deals with awareness about opportunities provided in the labour market, perception of the state of the labour market; (iv) “Self-belief” that deals with internal factors like knowledge, skill and abilities, potential to learn. All these components are shown in Table 2.5.

<table>
<thead>
<tr>
<th>My University</th>
<th></th>
<th>My University</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My engagement with my studies and academic</td>
<td>2. My perception of the strength of the university's brand.</td>
<td>3. The reputation my university has within my field of study.</td>
</tr>
<tr>
<td>Self-belief</td>
<td>My ambition</td>
<td>My field of study</td>
</tr>
<tr>
<td>4. My field of study</td>
<td>5. The status and credibility of my field of study.</td>
<td></td>
</tr>
<tr>
<td>6. My perception of the state of the external labour market.</td>
<td>7. My awareness of opportunities in the external labour market.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The state of the external labour market</td>
<td></td>
</tr>
</tbody>
</table>

Table 2.5: Self-perceived employability matrix (Source: Rothwell et al., 2008)

2.6.18 Aspiring Minds (2010)

Aspiring Minds is an employability Solutions company of India which started assessing MBA students across the nation in 2010. They quantified employability based on the benchmarking studies done at various companies in different sectors. They do multidimensional assessments and then match it to different jobs in different sectors and profiles. Their assessments span across language, cognitive skills (quantitative ability and logical ability), Domain knowledge and personality. Within personality, they focus on
extraversion, conscientiousness, emotional stability, openness to experience and agreeableness. They have done employability assessment based on gender, sector, location, specialization in MBA, functional skills and the quality of B-school campus.

2.6.19 MeritTrac (2007)

MeritTrac is a skills assessment company in India since 2000. However, they published a report on MBA talent pool in 2007. They have offices in all the metros of India. They basically provide quantitative input for measuring competencies of individual for specific roles. They have validated tests in various areas spanning communication skills (English and other Indian languages), general abilities, domain skills and behavioral assessment. The assessments are used by their corporate customers for the purpose of pre-recruitment and employee assessments. Also, it is used by the individuals to measure their skills for employability.

2.6.20 Prem Vrat (2013)

The author has proposed a mathematical model of employability which is based on the concept of Brown and Gibson model in a multi-criteria framework. In the model, the employability has been defined as a function of attitude, knowledge and skill with following relationship:

\[ E = A \cdot [\alpha \cdot K + (1 - \alpha) \cdot S] \]

--- (2.1)

Where, A stands for Attitude

K stands for Knowledge

S stands for Skills

\( \alpha \) is a relative weight of knowledge over skill between (0 - 1).
2.7 Classification of existing literature

The 308 research papers reviewed for literature have been categorized in eight different time periods of five years span each. Over the years, the trend shows that the numbers of studies done in the field have been increasing. The references are listed in alphabetical order and they are numbered. The year-wise classification of various research papers studied is as shown in Figure 2.8 where dark shaded band depicts the time-period and the light shaded band gives the serial order of the study as it appears in the list of references.

![Year-wise classification of literature](image)

Figure 2.8: Year-wise classification of literature
2.8 Research Gaps

The review of literature has led to following important observations:

I. Although multiple employability models exist in the literature. However, the main drawback with them is that these have not integrated all the critical attributes of employability viz. Attitude, Knowledge and Skill. Also, a single index is not given that can identify the degree of employability.

II. The knowledge that has been accumulated through research efforts concerning graduate employability has been confined to the West. Very few research studies have been conducted in other parts of the world, especially in South Asia, particularly in India. Yet, the South Asian literature highlights that despite the large number of people entering the labour force every year there is a dissatisfaction with the supply of skilled personnel, who are low on quality and relevance. Although some published material is available on employability and employability skills of graduates in South Asia, however, they offer policy recommendations and fail to include any proper statistical treatment of data.

III. Very scarce literature is available on knowledge attributes of employability of management graduates.

2.9 Conclusions

This chapter has reviewed the literature pertaining to the concept of employability with a view to study the current stage of research. As evident from it, the term employability has been explained in multiple ways and in wide variety of contexts. It also highlighted existing models of employability. The present study is an effort in the direction to fill above mentioned research gaps and propose a model that can quantify employability.