STRATEGIC ASSESSMENT OF EMPLOYABILITY GAP IN INDIAN IT SECTOR: A PERCEPTUAL ANALYSIS OF KEY STAKEHOLDERS

ABSTRACT

THESIS

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By

NIDHI ARORA

Under the Supervision of

Dr. Saboohi Nasim
Department of Business Administration
Aligarh Muslim University, Aligarh

Dr. Vimi Jham
Institute of Management Technology
Dubai, UAE

DEPARTMENT OF BUSINESS ADMINISTRATION
FACULTY OF MANAGEMENT STUDIES & RESEARCH
ALIGARH MUSLIM UNIVERSITY
ALIGARH (INDIA)

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1. INTRODUCTION

Careers and the world of work have witnessed a sea change in the recent years. Globalization, technological breakthroughs and intense competition have forced widespread organizational transformations. These far reaching changes have influenced virtually all aspects of the functioning of organizations, including the management of human resource.

Herriot and Stickland (1996) point out that under the traditional psychological contract, job security was exchanged for loyalty and hard work of an employee. However, for the modern psychological contract, the key characteristics include flexibility, job insecurity and individual responsibility for career management and employability (Hiltrop, 1995; Raeder and Grote 2001). Such significant transformations have indeed changed the way employees are hired, developed and managed in organizations.

In view of these changes, it has largely been recognized by the key stakeholders like government and employers, that the knowledge, skills and the competencies of an individual play a crucial role in building competitive edge for organizations. At this backdrop, the “employability” of graduates, is thus, an all-encompassing term for knowledge, skills, experience and other vital competencies, has indeed gained considerable significance. The ability to gain employment lies at the core of employability.

Although employability has gained vital significance, “employability gap” has become a global phenomenon prevalent in both developing and developed nations (Aring, 2012). This gap can be described as a striking difference in the competencies required for a job and those possessed by the applicants. It refers to the qualitative mismatch in the demand and supply of human resource (Mistry, 2014).

In order to address this issue of employability gap and bridge the qualitative demand supply mismatch, it becomes fundamental to understand the cause for such a gap. This necessitates the need to revisit and analyse employability at the first stance. Analysing employability and investigating its antecedents would further provide a framework to explore the areas of gap. It is evident from the literature that
employability is a complex construct that can be explored from different dimensions, and so can be the employability gap. Some of the past researches have indicated that the difference in perceptions among stakeholders can be a plausible reason for widening the employability gap (Wickramasinghe and Perera, 2010; Lee et al., 2002; Turner and Lowry, 1999)

The present study is, thus, an attempt to explore and assess the nature of employability gap in Indian Information Technology sector based on the perceptual differences among key stakeholders (employers and graduates). Such a multiple stakeholder approach, using a mix of qualitative and quantitative methodology, to understand and analyse the reasons for the employability gap, is not just a strategic assessment of the problem, but also has long term implications for all the key stakeholders in the sector.

In this study, a multipronged approach has been adopted to address the issue of employability gap. At the outset, the antecedents of employability identified from the literature are subjected to qualitative modelling to gain an insight into the interrelationships between them. Further, the predictors of employability are validated from two key stakeholders (employers and potential employees) perspectives, based on which gap analysis is undertaken to analyse any significant difference contributing to the employability gap in this sector.

The perceptual gap between the key stakeholders highlights the need to strategize beyond the skill deficit or loopholes in the higher education system, that have been much extensively highlighted in the available literature as the prime reasons for employability gap.

2. CONTEXT AND MOTIVATION FOR RESEARCH

Employability, as discussed earlier, is an all-encompassing term for knowledge, skills, experience and competencies that are significant for securing and maintaining employment (Robinson, 2000; Hillage and Pollard, 1998). Although the importance of graduate employability has been extensively acknowledged, still, employability gap remains to be a widespread phenomenon prevalent in many of the developed and
developing countries at present. This includes countries like India, China, Cambodia, Pakistan, USA, Canada, Europe, Egypt, Qatar and others (Aring, 2012).

Employability gap, in Indian context, is a major challenge for almost all the sectors, and is more pronounced in the fast paced Information Technology sector, despite its impressive growth. NASSCOM’s report (2012) highlighted that unemployability is one of the major challenges for IT sector in India and that there is an oversupply of talent with low employability. Further in 2014, NASSCOM reports indicated that in IT Services, Software Products and Engineering and R&D, only about 25% of the graduates are deemed employable. NASSCOM (2012) reveals that unemployability is a major challenge with only 10-15% employable graduates in business services and 26% of employable engineers in technical services. Also, only 12% of the students graduating every year are considered employable by Tier 1 /Tier 2 companies (NASSCOM, 2009). Further,

In light of the discussion above, this research has been carried out with an exclusive focus on the Information Technology sector, to assess the nature of employability gap that is prevalent in the sector. In order to achieve its objectives, the study analyses the knowledge areas, skills and competencies in graduates that influence their employability and are valued at the workplace. Further, besides validating the proposed model of research, the study highlights the perception differences among the two key stakeholder groups (employers and potential employees). Such perceptual differences are assumed to be one of the fundamental cause for employability gap prevalent in the sector.

Accordingly, the following major outcomes have been envisaged from the study:

1. To propose and validate the conceptual model for the antecedents of graduate employability in Information Technology sector.
2. To measure and test if there are significant differences in the perceptions of key stakeholders i.e. employers and graduates, in IT sector with respect to the significance of the predictors of graduate employability.
3. RESEARCH OBJECTIVES

a) To identify the antecedents / factors that influence graduate employability in general and in the context of IT sector in India.
b) To study the interrelationship among these factors of employability identified from the literature
c) To develop the conceptual framework of factors affecting employability, and validate from the perspectives of the two key stakeholder groups i.e. employers and potential job seekers (graduates) in Indian IT sector.
d) To analyse the perceptual difference among the two key stakeholder groups (employers and graduates) with respect to these factors.
e) To highlight the areas of perceptual differences between the two key stakeholders (employers and graduates) that contribute to employability gap and suggest ways to address it.

4. EMPLOYABILITY GAP- THE STRATEGIC ASSESSMENT

The present study aims to assess the employability gap in Indian Information Technology sector by examining and comparing the perceptions of the two key stakeholder groups i.e. employers and graduates. The basic theoretical assumption of this study is that such perceptual differences do not just cause the employability gap, but further augment it. Such an analysis of employability gap requires to revisit the concept of employability and understand its antecedents.

It is evident from the literature that employability is a complex and multifaceted term that can be analysed from different dimensions and in different contexts. The present study addresses the issue of employability gap by examining the predictors of employability based on the intrinsic factors like knowledge, skills, competencies and other vital attributes that enhance the chances of securing and maintaining employment, in the context of Indian Information Technology sector. The assessment of employability gap in this study has been termed “strategic” because of the multi methodological and multi stakeholder perspective approach that has been adopted to address the issue.
This study goes much beyond the mere identification of skills and examining their relative importance for jobs to underline the areas of gap. Rather, taking a step further, the acknowledged knowledge / skill areas have been endorsed by the domain experts to propose a conceptual model of antecedents of employability and validate from the perspectives of two key stakeholders. The key deliverables of the strategic assessment include the qualitative analysis of factors that influence employability, a hierarchical model of these factors, an empirically validated conceptual model for the antecedents of employability, a comparison of the perceptions of two key stakeholder groups (employers and potential job seekers) on employability and further, revealing the perceptual differences that augment the employability gap. At the end, based on the outcomes of this strategic assessment, recommendations have been proposed that have long term implications for all the key stakeholders.

These phases of strategic assessment are elaborated below:

**Phase 1: Understanding the nature of employability and the factors influencing it in context of Information Technology sector.**

It can be inferred from the review of literature that employability is complex and multifaceted construct. The literature highlights a wide array of definitions and factors that influence employability. This phase attempts to clearly define employability and identify the factors that influence the employability of fresher job seekers, specifically in context of Information Technology sector.

**Phase 2: Qualitative analysis and hierarchical modeling of the factors that influence graduate employability**

The factors influencing graduate employability that have been retrieved from the literature in Phase 1 are subjected to preliminary validation by the industry experts in this phase. Through the Total Interpretive Structural Modeling (TISM) technique, qualitative analysis has been done and a hierarchical model of the factors influencing graduate employability in Information Technology sector is established.

**Phase 3: Formulation and Validation of comprehensive model of the factors influencing graduate employability in Information Technology sector**

Further to the phases listed above, a conceptual model of the factors affecting graduate employability in Information Technology sector is proposed. This includes
three macro variables and six micro variables encompassing technical and non-technical areas that are found to influence Employability. Further, the developed model is empirically validated by two key stakeholder groups i.e. employers and potential job seekers.

**Phase 4: Analysing Employability Gap through Perceptual Analysis of Key Stakeholders**

The conceptual model of research established in Phase 3 is further deployed in this phase to capture and compare the perceptions of the two key stakeholder groups i.e. employers and graduates on the significance of the factors that influence employability. Such a perceptual analysis enables to clearly delineate the areas of perception differences between the employers and graduates with respect to the factors that influence employability. The perceptual differences revealed at this stage can be attributed to originate and magnify the employability gap.

**Phase 5: Proposing Recommendations to Bridge the Employability Gap by plugging in Perceptual Differences.**

Based on the analysis of employability gap through perceptual analysis as described in Phase 4, this phase proposes recommendations to plug in the perceptual differences between the two stakeholder groups in order to bridge the employability gap.

5. **LITERATURE REVIEW**

An extensive review of literature has been undertaken for the purpose of this research that spans across the broader concept of employability and further narrows down to its relevance in Indian Information Technology Sector. Some of the key areas of review are discussed below:

**5.1 Understanding the Concept of Employability**

The literature review suggests that employability cannot be defined with a singular approach. Over the last decade, employability has been defined from a wide array of perspectives, ranging from a concept, process to a product. Some of the key definitions are discussed below:
### Table 1: Key Definitions of Employability

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Author</th>
<th>Employability Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bridgstock (2009)</td>
<td>Adequate preparation for moving into jobs and maintaining employability once there, involves not only general and discipline specific skills but also a range of skills to manage oneself and his career.</td>
</tr>
<tr>
<td>2</td>
<td>Fugate and Kiniki (2008)</td>
<td>A constellation of individual differences that predispose employees to (pro)actively adapt to their work and career environments</td>
</tr>
<tr>
<td>3</td>
<td>Pool and Sewell (2007)</td>
<td>Employability is having a set of skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure a occupations in which they can be successful</td>
</tr>
<tr>
<td>4</td>
<td>Heijde and Van der Heijden (2006)</td>
<td>The continuous fulfilling, creating or acquiring of work through the optimal use of competencies</td>
</tr>
<tr>
<td>5</td>
<td>Sanders and Grip (2004)</td>
<td>The willingness to be and remain attractive in the labor market.</td>
</tr>
<tr>
<td>6</td>
<td>Fugate, Kiniki and Ashford, (2004)</td>
<td>A psychological construct that embodies individual characteristics that foster adaptive cognition, behavior and affect, and enhance the individual work interface</td>
</tr>
<tr>
<td>8</td>
<td>Hillage and Pollard (1998)</td>
<td>Ability to get initial employment, maintain employment and obtain new employment if required.</td>
</tr>
</tbody>
</table>

It can be concluded that on a broad spectrum that employability implies a manifestation of knowledge, skills, abilities and characteristics vital for a job. While the hard skills refer to the technical and discipline specific knowledge, the soft skills and personal qualities provide the ability to demonstrate them.

### 5.2 Key Models and Frameworks of Employability

A wide range of models and frameworks of employability have been proposed over the years. These comprehensive models examine employability from different perspectives, thereby suggesting definitions and attributes or indicators of the construct. These models translate the theoretical construct of employability into measurable variables. Some of the significant models have been reviewed as follows.

<table>
<thead>
<tr>
<th>Employability Model</th>
<th>Employability Definition</th>
<th>Employability Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridgstock (2009)</td>
<td>Adequate preparation for moving into jobs and maintaining employability once there, involve not only general and discipline specific skills but also a range of skills to manage oneself and his career.</td>
<td>Career management, Self-management, Career building skills, Discipline specific skills, Employability skills, Underpinning traits and Dispositions</td>
</tr>
<tr>
<td>Fugate and Kiniki</td>
<td>A constellation of individual differences that</td>
<td>Work and Career Resilience,</td>
</tr>
</tbody>
</table>
5.3 General Predictors of Graduate Employability

A plethora of literature in the area of employability reveal research studies that highlight the generic factors that influence employability. On a broad spectrum, these factors include soft skills and personal attributes of an individual that can be applied to majority of work context. These are summarized in the table that follows.

**Table 3: General Predictors of Graduate Employability**

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Predictors of Employability</th>
</tr>
</thead>
</table>
| Singh, Thambusamy and Abdullah (2013). | o Communication Skills  
o Problem Solving and Critical Thinking  
o Teamwork  
o Lifelong Learning and Information Management  
o Integrity and Professional Ethics  
o Entrepreneurship  
o Leadership |
| Rosenberg, Heimler and Morote (2012) | o Basic Literacy and Numeracy Skills  
o Critical Thinking Skills  
o Leadership Skills  
o Management Skills  
o Information Technology Skills  
o Systems Thinking Skills  
o Work Ethic |
| Blom and Saeki (2011). | o Core Employability Skills  
o Professional Skills  
o Communication Skills |
| Dupre and Williams (2011) | o Basic Work Skills  
o Social Skills  
o Personal Skills  
o Higher Order Thinking Skills |
| Ramli, Nawawi, and Chun | o Problem Solving and Analytic |
- Decision Making  
- Organization and Time Management  
- Communication Ability  
- Interpersonal Skills  
- Leadership and Influence  
- Creativity, Innovation, Flexibility and Ability to conceptualize  
- Lifelong Learning  
- Professional Behavior  
- Motivation

Van Dam (2004).  
- Basic Skills,  
- Higher Order Thinking Skills,  
- Affective Skills and Traits

Wickramasinghe and Perera (2010).  
- Personality characteristics  
- Openness  
- Initiative  
- Organizational Tenure

Mediating Variables  
- Career Anchors  
- Managerial Competence  
- Variety  
- Technical Competence  
- Security  
- Continuance commitment  
- Affective Commitment

Consequences  
- Employability activities e.g. engaging in developmental activities of workforce

Lees (2002)  
- Personal Qualities,  
- Core Skills,  
- Process Skills

Harvey, (2001)  
- Employability Development Opportunities  
- Employability Attributes  
- Work Experience  
- Self Promotional Skills  
- Willingness to Develop

Benett, Dunne and Carre (1999)  
- Decision Making Skills  
- Opportunity Awareness  
- Transition Learning (Job searching and Self Presenting Skills)  
- Self Awareness (Interests, Abilities and Values)

5.4 Employability Gap in India

Virtually all sectors of the Indian economy are hit by the catastrophe of employability. The following are the key points in context of the same.

- India faces a major challenge of imparting “employable skills” to its growing workforce over the next few decades. Out of around 0.4 million engineering students graduating every year in India, only 20% are readily employable (FICCI, 2013)
• Only 25% of the total Indian professionals are considered employable by the organized sector (FICCI; Ernst and Young, 2012)
• 57% of India’s youth suffer some degree of unemployability While 90% of employment opportunities require vocational skills, 90% of Indian schools and colleges output has only bookish knowledge (Team Lease Services, 2007)
• Approximately 75 to 80 million jobs will be created in India over the next five years. 75% of these new jobs will require vocational training to enhance the employability (ICRA Management Consultancy Firm, 2012)
• Although the number of students enrolled increased 800 percent from 1998 to 2010, this quantitative growth has rather led to an average decline in the quality of the graduating engineers. More than 60% of employers were not satisfied by the quality of graduates passing out the engineering colleges (FICCI, 2012)
• While in absolute number, there is a surplus supply of manpower, there still exists an acute deficiency in the crucial ‘skilled’ and ‘qualified’ segment.

5.5 Employability Gap In Indian IT Sector

The Information Technology Sector has made an unparalleled impact on the Indian economy. Despite its impressive growth, the sector is striving to deal with the challenges of talent supply mismatch, skill shortages and low employability in order to maintain its global leadership position. This calls for a pressing need to bridge this gap and ensure a steady supply of skilled workforce to meet the rising manpower demands of the sector in the forthcoming years. This section highlights the employability gap existing in this sector.

Nasscom’s report (2012) highlighted that unemployability is one of the major challenges for IT sector in India and that there is an oversupply of talent with low employability. Further in 2014, NASSCOM reports indicated that in IT Services, Software Products and Engineering and R&D, only about 25% of the graduates are deemed employable. NASSCOM (2012) reveals that unemployability is a major challenge with only 10-15% employable graduates in business services and 26% of employable engineers in technical services (FICCI, 2013). Also, only 12% of the students graduating every year are considered employable by Tier 1/Tier 2 companies (Nasscom, 2009). Nasscom (2014) reports that there exists an oversupply of talent and
low employability in Indian IT sector. The research study indicates that that of the ~0.6-0.64 million candidates willing to work in the non-BPM sectors (IT Services, Software Products and Engineering and R&D), around 0.15-0.18 million are deemed employable.

The above discussed statistical indicators are evident of the fact that employability gap and talent supply mismatch pose a daunting challenge for the IT sector and needs to be addressed urgently for its stable growth.

5.6 Employability Predictors for Technical Graduates

There are a generic set of talent requirements that are common to a majority of the sectors. However, depending on the nature of the industry, every sector has its own set of needs and demands and job seekers are expected possess these sector specific requirements as well to meet them. Table 4 summarizes the key researches for the classification of IT / IS knowledge and skill areas that indicate the factors that affect the employability in this sector.

Table 4: Key Researches on classification of IT / IS knowledge and Skill areas

<table>
<thead>
<tr>
<th>S.No</th>
<th>Author</th>
<th>Attributes</th>
<th>Nature of Study</th>
<th>Research Objective</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Debuse and Lawley (2009)</td>
<td>Experience, Technological Skills, People Skills, Business Skills, Theoretical Skills</td>
<td>Qualitative</td>
<td>Identify key attributes sought after by employers from ICT graduates</td>
<td>Web Content Mining</td>
</tr>
<tr>
<td>2</td>
<td>Tesch et al. (2008)</td>
<td>Personal Traits, Interpersonal and Management Skills, Technical Skills,</td>
<td>Empirical</td>
<td>To examine the employers’ perceptions and expectations of IS entry level personal and interpersonal skills</td>
<td>IS professionals across different industries</td>
</tr>
<tr>
<td>3</td>
<td>Fang et al., (2005)</td>
<td>Core IS Knowledge, Organizational, Interpersonal Skills, Personal Skills</td>
<td>Empirical</td>
<td>To determine knowledge and skills required from entry level IS hire</td>
<td>IS recruiters</td>
</tr>
<tr>
<td>4</td>
<td>Lee et al., (2002)</td>
<td>IS core knowledge, Organization and Society, Interpersonal, Personal Traits</td>
<td>Exploratory</td>
<td>To understand perception gaps between IS academics and IS practitioners</td>
<td>IS academics and IS practitioners</td>
</tr>
<tr>
<td>5</td>
<td>McMurtrey et</td>
<td>IS core knowledge,</td>
<td>Empirical</td>
<td>Understanding</td>
<td>Organizations</td>
</tr>
<tr>
<td>Authors</td>
<td>Skill Set</td>
<td>Research Methodology</td>
<td>Objectives</td>
<td>Key Stakeholders</td>
<td></td>
</tr>
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<td>------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Yen et al. (2001)</td>
<td>IS Technology knowledge / Skills, Organizational and Societal Knowledge / Skills, Interpersonal Knowledge / Skills, Personal Knowledge / Traits</td>
<td>Empirical</td>
<td>What IS curricula must provide to a student to be an IS professional</td>
<td>IS practitioners</td>
<td></td>
</tr>
<tr>
<td>Trauth et al., (1993)</td>
<td>IS Tasks, Technical Skills, Interpersonal and Business Skills,</td>
<td>Qualitative and Quantitative</td>
<td>To measure the differences between industry expectations and academic preparation</td>
<td>IS Managers, consultants, recent graduates and IS professors</td>
<td></td>
</tr>
<tr>
<td>Woratschek and Lenox (2002)</td>
<td>Technical Skills, Non Technical Skills</td>
<td>Empirical</td>
<td>To understand the employers perception about the skills required from IS graduates</td>
<td>Employers hiring entry level IS graduates</td>
<td></td>
</tr>
<tr>
<td>Lee et al., (1995)</td>
<td>Business Functional Knowledge, Interpersonal and Management skills, Technical Specialities Knowledge, Technology Management Knowledge</td>
<td>Qualitative / Empirical</td>
<td>Investigate changing skills and knowledge requirements from IS professions and relate them to academic preparation</td>
<td>IS Managers, User Managers, IS Consultants</td>
<td></td>
</tr>
<tr>
<td>Todd et al. (1995)</td>
<td>Hardware, Software, Management, Business, Social, Problem Solving, Development Methodology</td>
<td>Qualitative</td>
<td>How the mix of skill requirements has changed over the years for IS professionals</td>
<td>Analyzing content of advertisements for IS professionals</td>
<td></td>
</tr>
<tr>
<td>Nelson (1991)</td>
<td>Organization Knowledge, Organizational Skills, Organizational Unit, General IS Knowledge, Technical Skills, IS Product</td>
<td>Empirical</td>
<td>Educational needs assessment for IS professionals</td>
<td>IS personnel and end users</td>
<td></td>
</tr>
</tbody>
</table>

**6. LEARNINGS FROM LITERATURE REVIEW AND RESEARCH GAPS**

The key learnings from the literature review have been summarized in this section and the research gaps have been identified.
6.1 Learnings from Literature Review

Key literature on employability and the gap has been reviewed in general and that focused specifically on Information Technology sector. The review has been done across major online resources like EBSCO, ProQuest, Elsevier, and Emerald spanning across reputed books, journals and articles. This extensive literature has been analysed to present the above review.

The key learnings of this literature have been summarized below:

- Employability is a complex and multidimensional construct. It can be analyzed differently in different contexts and perspectives. There exist apparent differences in the meaning of employability, however, on a broad spectrum it can be regarded as the essential knowledge, skills and personal attributes that enable an individual to secure and maintain employment.
- Various models and frameworks of employability have been established that translate the broad theoretical construct into measurable dimensions. Though the various models comprehend employability differently, the vital significance of skills in constituting the employability construct is quite evident.
- “Soft skills” or “Generic Skills” are found to be the key predictors of graduate employability apart from other knowledge areas, personal attributes and situational factors. These are the skills that can be transferred in a wide variety of job contexts.
- “Employability gap” is a global phenomenon and remains to be one of the critical problems being faced by the world today. Several sectors in India are hit by the skill gap, talent crunch and demand supply mismatch. This gap is one of the critical reasons for hiring challenges being faced by the recruiters.
- The employability gap has hit majority of the sectors of the Indian economy, including the Information Technology sector. With the sector contributing significantly to India’s GDP and posing astoundingly high manpower requirements by 2022, it is startling that finding employable workforce has been a challenge for a majority of recruiters.
- The various research studies focused on Information Technology sector imply that only technical knowledge or academic excellence does not suffice to
secure employment in the sector. Both technical skills and non technical skills are sought after by the employers while hiring graduates for potential jobs.

- There exists a noteworthy gap in the perceptions of the stakeholders on skills and employability. These stakeholders include academia, industry and the graduates. Their expectations and perceptions on these employability attributes are different leading to a notable gap.
- The rising employability gap has a serious impact on the competitiveness and performance of organizations. Especially for a high growth sector like Information Technology, there exists a pressing need to bridge this divide and ensure a steady supply of manpower.

6.2 Research Gaps

The present research is significant as it can fill in the gaps that are surfaced through the literature review. The following research gaps have been identified:

- A plethora of literature addresses employability skills and skill requirements from graduates. However, it has been observed that much of the information is theoretical in nature. Majority of the studies consider the absolute aspect of employability, provide factual data and offer policy recommendations.
- The abundant literature available on employability addresses the issue in a generic sense. Limited literature is available that is exclusively focussed on employability in Information Technology Sector. Further, in Indian context, the available information is scarce.
- Although there is ample information available on what skills are demanded by the industry from the graduates, there are limited numbers of studies that examine the perceptual differences among the stakeholders on the required skills.
- It has been observed that a vast majority of studies on employability and skills are restricted to the Western countries. There are not many studies confined to Asian countries.
- There is a dearth of literature that establishes a framework for antecedents of employability with respect to Information Technology sector. This leaves a room for the establishment and empirical validation for such a model.
There are few evidences in the literature regarding perception differences among the employers, graduates and academia on the required skills for employment. However, very few studies are focused especially on the Information Technology sector to analyze this gap.

No comprehensive framework for employability has been proposed and empirically tested in the context of Indian IT sector.

No study was found focusing on perception differences among employers and graduates in Indian Information Technology Sector.

7. RESEARCH METHODOLOGY

The research methodology adopted for the various phases of this study are elaborated below:

**Phase 1: Literature Review – Identification of Research Variables**

An extensive review of literature has been conducted for this research which is reported in the previous sections. Past researches related to employability and skills in general and specific to technical areas like Information Technology / Computer Science / Information Science has been prudently scrutinized. Various electronic databases have been used to retrieve the past researches on different relevant themes.

**Phase 2: Expert Interviews for Exploring Relationships Among Research Variables**

Sufficient information has been drawn from the literature for the purpose of identifying research constructs and formulating the conceptual research model. However, interviews were conducted with domain experts to elicit their inputs on the subject. This aimed at validating the research constructs and elucidate the interaction and relationships among the research variables for better clarity. For this, a qualitative technique called Total Interpretive Structural Modeling (TISM) has been used.

**Phase 3: Empirical Study for Hypotheses Testing**

A questionnaire based survey has been carried out the purpose of testing the hypotheses. Responses were solicited from the two stakeholder groups i.e. fresher
graduates in Information Technology and allied courses and the employers in Information Technology Sector. Two separate questionnaires were designed to capture their perceptions on the significance of the various macro and micro constructs identified for the study. Also, the comparison of the responses from the two stakeholder groups enables to test the hypotheses of difference as formulated in the study. The proposed conceptual framework for this study has been empirically validated from the perspective of both employers and graduates using bivariate and multivariate data analysis techniques.

**Phase 4: Synthesis of Results for Analysing Employability Gap through Perceptual Analysis**

The employability gap is assessed in this stage through the perceptual analysis of key stakeholders. The empirical findings from two distinct opinion surveys of employers and graduates have been synthesized for the perceptual analysis of these two stakeholder groups. Such an analysis enables to delineate the areas of perceptual differences between these two groups on the factors influencing employability. A clear delineation of the areas of perceptual differences enables to identify the reasons that can be attributed for widening the employability gap.

**Phase 5: Triangulation of results, Conclusions and Recommendations**

Triangulation has been used to facilitate data validation and cross verification. Data and methodological triangulation techniques have been used to enhance the credibility of the results of the study. Further, based on the findings, key conclusions have been highlighted and recommendations have been proposed. Finally, research contributions, limitations and directions for future research are also outlined.

The outline of the above methodology is depicted below:

![Figure 1: Phases in Research](image-url)
7.1 Research Variables

The research variables used in the present study have been drawn from the review of literature. The proposed research model with the taxonomy of research variables, drawing from various past researches, is much more comprehensive and unique to this study. These are listed below:

Table 5: List of Variables used in the Research

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Macro Variables (Code) (No. of micro variables)</th>
<th>Micro Variables</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Technical Skills (TS) (2)</td>
<td>Technical Specialties Knowledge</td>
<td>Lee et al. (1995).</td>
</tr>
<tr>
<td></td>
<td>Technology Management Skills</td>
<td>Aasheim et al. (2012); Trauth et al (1993); Lee et al. (2002); Nelson (1991); Yen et al. (2001); Aasheim and Williams (2009)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Organizational Knowledge (OK) (0)</td>
<td>Nelson (1991); Yen et al. (2001); Fang et al. (2005); Bassellier and Benbasat (2004); Aasheim et al. (2009).</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Personal and Interpersonal Skills (PIS) (4)</td>
<td>Problem Solving and Critical Thinking Skills</td>
<td>Tesch et al. (2008); Lees, (2002); Rosenberg (2012); Yen et al. (2001); McMurtrey et al. (2008); Lee et al. (2002); Ju et al. (2011), Turner and Lowry (1999); Woratschek and Lenox, (2002); McMurtrey et al. (2008), Wickramasinghe and Perera (2010), Lees (2002), Singh et al. (2008); Ramli (2010); Ju et al. (2011).</td>
</tr>
<tr>
<td></td>
<td>Communication Skills</td>
<td>Bailey and Mitchell (2006); Aasheim et al. (2009); Fang et al. (2005); Benamati (2007); Tesch et al. (2008); Woratschek and Lenox (1999); Lee et al. (1995); Eom and Lim (2012); McMurtrey et al. (2002); Havelka and Merhout (2006)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Creative Thinking Skills</td>
<td>Fang et al. (2005); Wickramasinghe and Perera (2010); McMurtrey et al. (2008); Ju et al. (2011); Yen et al. (2001); Tesch et al. (2008); Lee et al. (2002); Wen et al. (2001); Aasheim et al. (2012)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teamwork and Interpersonal Skills</td>
<td>Teamwork Skills: McMurtrey et al. (2008); Aasheim et al. (2012); Woratschek and Lenox, (2002); Tesch (2008); Singh et al. (2013); Blom et al. (2011); Bailey and Mitchell (2006); Aasheim et al. (2009); Fang et al. (2005) and interpersonal skills</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interpersonal Skills: Rosenberg et al. (2012); Aasheim et al. (2012); Nelson (1991); Trauth et al. (1993); Ramli (2010); Bassellier et al. (2004)</td>
<td></td>
</tr>
</tbody>
</table>
7.2 Conceptual Framework of Research
The broad conceptual framework for the research hypothesizing possible linkage of the independent variables – Technical skills, Organizational Knowledge and Personal and Interpersonal Skills and the independent variable- Employability is depicted below

![Conceptual Framework of Research Diagram]

7.3 Hypotheses Formulation
These two sets of hypotheses formulated for the study include include the hypothesis of association and hypothesis of difference.

7.3.1 Hypothesis of Association
The hypotheses of association have been envisaged in order to test the research framework that has been conceptualized for the purpose of this study. These hypotheses have been formulated with the four sets of macro variables that include the independent variables Technical Skills, Organizational Knowledge, Personal and Interpersonal Skills and the dependent variable, Employability. These hypotheses linking the independent and dependent macro variables may be presented as follows:

A sample hypotheses of association for Technical Skills is mentioned below.
Null Hypotheses: Technical Skills is not a predictor of Employability

Alternate Hypotheses: Technical Skills is a predictor of Employability

On similar lines, the hypotheses are formulated for the three macro and six micro variables of study. Also, a hypotheses of association is formulated assuming that under the controlled impact, all the seven variables of study (two micro variables of Technical Skills, four micro variables of Personal and Interpersonal Skills and Organizational Knowledge as it does not consist of any further micro variables) are a strong predictor of employability. Two sets of hypotheses of association are tested separately for each of the two key stakeholder groups under consideration i.e. employers and graduates.

7.3.2 Hypotheses of Difference

The hypotheses of difference compares and tests the difference in the perception of two key stakeholder groups i.e. graduates and employers with respect to the importance of the factors that influence graduate employability.

A sample hypotheses of association for Technical Skills is mentioned below.

Null Hypotheses: There is no significant difference in perception of graduates and employers with regard to the importance of Technical Skills for employability

Alternate Hypotheses: There is a significant difference in perception of graduates and employers with regard to the importance of Technical Skills for employability

On similar lines, the hypotheses of difference is formulated for all the three macro variables and six micro variables of study.

8. SUMMARY OF THE MAJOR FINDINGS

This section summarizes the major findings of the research in light with the phases of strategic assessment of employability gap.
8.1 Analysing Employability and its Predictors

The assessment of employability gap can be clearly comprehended as an investigation of a void in employability. This necessitated the need to reach to the roots and analyse employability at the initial stance. Phase 1 and Phase 2 of the strategic assessment of employability gap aimed at understanding the nature of employability and conduct a qualitative analysis of the factors that influence it. This was achieved through the preliminary phase of this study wherein the research constructs were drawn through the review of literature. Subsequently, a qualitative analysis of these factors was done through Total Interpretive Structural Modeling (TISM). Such an analysis enabled to identify the factors that influence employability that were probed further to examine the gap. The following are the key leanings from the preliminary phase:

a) The conceptual review of literature identifies Technical Skills, Personal and Interpersonal Skills and Organizational Knowledge as the antecedents of graduate employability at the macro level. Technical Skills further consists of two micro variables whereas Personal and Interpersonal Skills consists of four micro variables.

b) A preliminary validation of the research constructs through the TISM technique reveals that all the eight variables of study under consideration have been endorsed by the experts. Based on the opinion of the domain experts and its further interpretation, these elements have been partitioned into four levels.

c) All the listed seven independent variables of study act as drivers for the dependent variable i.e. Employability.

d) Three key driving antecedents of employability are Technical Specialities Knowledge, Technology Management Skills and Communication Skills.

e) Six elements i.e. Technical Specialities Knowledge, Creative Thinking Skills, Organizational Knowledge and Team Work and Interpersonal Skills, Technology Management Skills and Communication Skills; influences the Problem solving and Critical thinking skills of an individual.

f) The communication skills and technology management skills hold a transitive relation with these skills while all other factors have a direct influence.

g) The developed TISM model has been further assessed and accepted by the industry experts.
h) A preliminary validation of the research constructs through Total Interpretive Structural Modeling revealed that all the macro and micro constructs were endorsed by the industry experts.

i) The Technical Specialties Knowledge, Technology Management Skills and Communication Skills were found to be key driving forces that influence employability as per TISM.

j) The Employability is found to have the strongest dependent power that clearly justifies its assumption as the dependent variable of study.

k) Based on the opinions of the industry experts that were captured through the TISM, a hierarchical model of the factors that influence graduate employability in Information Technology sector has been developed.

The figure that follows shows the TISM model that has been developed in this phase.
Figure 3: TISM of factors Affecting Employability

V1 Technical Specialities Knowledge
- Learning new
- Understanding, adaptability, willingness to cope up with technological changes

V2 Technology Management Skills

V3 Organization Knowledge
- Enhanced ability to understand business environment
- Ability to think out of the box, come up with new & better solutions to problems
- Enhanced ability to sustain in a challenging and rapidly changing demands

V4 Problem Solving and Critical Thinking Skills
- Ability to think out of the box, propose novel solutions to a problem
- Understanding, & apply appropriate technology to solve the job
- Organization needs novel ideas to gain an edge over competitors and optimize costs
- Understanding business & applying technology to solve the job

V5 Communication Skills
- Verbal, written & nonverbal communication is significant to perform the job
- Derives learning behaviour, enhances ability to apply updated technology & accelerates generation of feasible and cost effective solutions
- Develops learning behaviour, enhances ability to apply updated technology & accelerates generation of feasible and cost effective solutions

V6 Creative Thinking Skills

V7 Teamwork and Interpersonal Skills

V8 Employability
- Enhanced ability to sustain in a challenging and rapidly changing demands
- Ability to think out of the box, come up with new & better solutions to problems
- Understanding, & apply appropriate technology to solve the job
- Understanding business & applying technology to solve the job
8.2 Formulation and Validation of Conceptual Model of Research

In line with the phase 3 of the strategic assessment of employability gap, the conceptual model of research was hypothesized and further empirically validated by the two key stakeholder groups i.e. employers and graduates. The following are key highlights of the questionnaire based method of survey:

- Questionnaire based method was used for the opinion surveys of graduates and employers. Two distinct questionnaires with similar questions were designed to capture the perceptions of employers and graduates on all macro and micro variables of study. Each of the questionnaires consisted of 36 items.
- The unit of analysis for the opinion survey of employers was HR personnel / Technical staff in IT companies involved in the recruitment and selection procedures of fresher IT graduates while for the opinion survey of graduates the unit of analysis were fresher job seekers i.e. final year students pursuing bachelors degree programs in IT / CS /allied courses from private colleges and seeking jobs on completion of graduation.
- For pre-testing, five experts were interviewed, using a pretesting template based on the Questionnaire Appraisal System (QAS),
- The responses were received from 236 employers and 444 graduates.
- For construct validity, the EFA (Exploratory Factor Analysis) was performed using PCA (Principal Component Analysis) method for which a factor loading of 0.40 has been used as cut off point. For all the items, factor loadings were found within range and hence all the 36 items were retained.
- The Kaiser-Meyer-Olkin (KMO) measures of sampling adequacy values were well within the acceptable range of 0.5 to 1.
- The overall Cronbach’s Alpha value cut off value for all the macro and micro variables was found to be greater than of 0.8.

Through these surveys, the key findings of this phase are summarized as follows:

a) A conceptual model of research has been proposed with Technical Skills, Personal and Interpersonal Skills and Organizational Knowledge as the independent macro variables that influence the dependent variable, employability. Further, Technical Skills consist of two micro variables whereas Personal and Interpersonal consist of four micro variables.
b) Technical Skills, Personal and Interpersonal Skills, and Organizational Knowledge bear a significant strong positive correlation with Employability. At the micro level, all the six micro variables of Technical Skills and Personal and Interpersonal Skills bear a significant strong positive correlation with Employability (Correlation Analysis).

c) It is acknowledged by both employers and graduates that all the three macro variables i.e. Technical Skills, Personal and Interpersonal Skills and Organizational Knowledge are significant predictors of employability. (Regression Analysis).

d) The two micro variables of Technical Skills i.e. Technical Specialties Knowledge, Technology Management Skills are significant predictors of employability by both employers and graduates (Regression Analysis).

e) The four micro variables of Personal and Interpersonal Skills i.e., Communication Skills, Problem Solving and Critical Thinking Skills, Creative Thinking Skills, Team Work and Interpersonal Skills are significant predictors of Employability by both employers and graduates. (Regression Analysis)

f) There exists a difference in the magnitude of significance placed on the macro and micro variables for employability by the two stakeholder groups (Correlation and Regression Analysis)

8.2.1 Results of Testing Hypotheses of Association

The following tables depict the results of testing hypotheses of association for employers and graduates. The three macro variables, six micro variables and the controlled impact of all the micro variables taken together, are found to have a significant association with the dependent macro variable, Employability. Hence, all the hypotheses of association have been accepted.
Table 6: Results of Testing Macro Hypotheses of Association for Employers and Graduates

<table>
<thead>
<tr>
<th>Respondents Variables</th>
<th>EMPLOYERS</th>
<th></th>
<th></th>
<th>GRADUATES</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R square</td>
<td>Beta</td>
<td>Sig</td>
<td>Status of Alternate Hypotheses</td>
<td>R square</td>
<td>Beta</td>
</tr>
<tr>
<td>Organizational Knowledge</td>
<td>.755</td>
<td>.210</td>
<td>.001</td>
<td>Accepted</td>
<td>.631</td>
<td>.152</td>
</tr>
<tr>
<td>Personal and Interpersonal Skills</td>
<td>.354</td>
<td>.000</td>
<td>Accepted</td>
<td></td>
<td>.394</td>
<td>.000</td>
</tr>
<tr>
<td>Technical Skills</td>
<td>.349</td>
<td>.000</td>
<td>Accepted</td>
<td></td>
<td>.288</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 7: Results of Testing Micro Hypotheses of Association for Employers and Graduates

<table>
<thead>
<tr>
<th>Respondents Variables</th>
<th>EMPLOYERS</th>
<th></th>
<th></th>
<th>GRADUATES</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R square</td>
<td>Beta</td>
<td>Sig</td>
<td>Status of Alternate Hypotheses</td>
<td>R square</td>
<td>Beta</td>
</tr>
<tr>
<td>Technical Specialties Knowledge</td>
<td>.705</td>
<td>.467</td>
<td>.001</td>
<td>Accepted</td>
<td>.577</td>
<td>.441</td>
</tr>
<tr>
<td>Technology Management Skills</td>
<td>.414</td>
<td>.000</td>
<td>Accepted</td>
<td></td>
<td>.361</td>
<td>.000</td>
</tr>
<tr>
<td>Communication Skills</td>
<td>.712</td>
<td>.228</td>
<td>.000</td>
<td>Accepted</td>
<td>.598</td>
<td>.256</td>
</tr>
<tr>
<td>Problem Solving and Critical Thinking Skills</td>
<td>.281</td>
<td>.000</td>
<td>Accepted</td>
<td></td>
<td>.189</td>
<td>.001</td>
</tr>
<tr>
<td>Creative Thinking Skills</td>
<td>.158</td>
<td>.027</td>
<td>Accepted</td>
<td></td>
<td>.188</td>
<td>.002</td>
</tr>
<tr>
<td>Teamwork and Interpersonal Skills</td>
<td>.259</td>
<td>.001</td>
<td>Accepted</td>
<td></td>
<td>.212</td>
<td>.001</td>
</tr>
</tbody>
</table>

Table 8 shows the results of testing the controlled impact of all the micro variables taken together. It can be noticed that the coefficient of determination, R square, is higher when all these micro variables are regressed together as compared to when the two micro variables of Technical Skills and the six micro variables of Personal and Interpersonal Skills are regressed separately.
Table 8: Results of Testing Controlled Impact of all Micro Variables for Employers and Graduates

<table>
<thead>
<tr>
<th>Variables</th>
<th>EMPLOYERS</th>
<th></th>
<th>Status of Alternate Hypotheses</th>
<th>GRADUATES</th>
<th></th>
<th>Status of Alternate Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R square</td>
<td>Beta</td>
<td>Sig</td>
<td>R square</td>
<td>Beta</td>
<td>Sig</td>
</tr>
<tr>
<td>Communication Skills</td>
<td>.758</td>
<td>.127</td>
<td>.023</td>
<td>.636</td>
<td>.210</td>
<td>.000</td>
</tr>
<tr>
<td>Problem Solving and Critical Thinking Skills</td>
<td>.136</td>
<td>.041</td>
<td></td>
<td>.092</td>
<td>.113</td>
<td></td>
</tr>
<tr>
<td>Creative Thinking Skills</td>
<td>- .015</td>
<td>.841</td>
<td></td>
<td>.067</td>
<td>.263</td>
<td></td>
</tr>
<tr>
<td>Teamwork and Interpersonal Skills</td>
<td>.139</td>
<td>.05</td>
<td></td>
<td>.060</td>
<td>.375</td>
<td></td>
</tr>
<tr>
<td>Technology Management Skills</td>
<td>.169</td>
<td>.021</td>
<td></td>
<td>.089</td>
<td>.147</td>
<td></td>
</tr>
<tr>
<td>Technical Specialties Knowledge</td>
<td>.227</td>
<td>.001</td>
<td></td>
<td>.229</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Organizational Knowledge</td>
<td>.183</td>
<td>.004</td>
<td></td>
<td>.150</td>
<td>.004</td>
<td></td>
</tr>
</tbody>
</table>

8.2.2 Validated Macro and Micro Models of Research from Employers’ Perspective

Based on the results of the regression analysis discussed in the preceding section, the validated macro and micro models of research are depicted below

![Figure 4: Validated Macro Model of Research from Employers’ Perspective](image-url)
Figure 5: Validated Model of Micro Variables of Technical Skills from Employers’ Perspective

Figure 6: Validated Model of Micro Variables of Personal and Interpersonal Skills from Employers’ Perspective

Figure 7: Validated Model of Controlled Impact of all Micro Variables from Employers’ Perspective
Validated Macro and Micro Models of Research From Graduates’ Perspective

The figures below depict the validated macro and micro models of results of research from graduates’ perspective.

![Diagram](Image)

**Figure 8: Validated Macro Model of Research from Graduates’ Perspective**

**Figure 9: Validated Micro Model of Technical Skills from Graduates’ Perspective**

**Figure 10: Validated Micro Model of Personal and Interpersonal Skills from Graduates’ Perspective**
8.3 Perceptual Analysis of Key Stakeholders

In line with Phase 4 of the strategic assessment, the employability gap has been assessed through the perceptual analysis of the key stakeholders (employers and graduates). The following are the broad learnings of this phase:

a) There exists a significant difference in the perception of graduates and employers on the importance of the factors that influence graduate employability (One Way ANOVA).

b) Nearly all the factors deemed to influence employability are considered more significant by the employers as compared to the graduates (Synthesis of Regression Analysis Results).

8.3.1 Results of Testing Hypotheses of Difference

The tables below show the results of testing hypotheses of difference. The alternate hypotheses for all three macro and six micro variables has been accepted indicating that there exists a statistically significant perception difference across the two groups (employers and graduates).

<table>
<thead>
<tr>
<th>Macro Variable</th>
<th>F Value</th>
<th>Sig Value</th>
<th>Status of Alternate Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Skills</td>
<td>17.710</td>
<td>.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>Personal and Interpersonal Skills</td>
<td>17.386</td>
<td>.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>Organizational Knowledge</td>
<td>31.132</td>
<td>.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>Employability</td>
<td>22.240</td>
<td>.000</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
8.4 Bridging Employability Gap by Plugging Perceptual Differences

The employability gap has been assessed in the preceding phases through the perceptual analysis of the key stakeholders. Further, bridging this employability gap necessitates to plug in the perceptual differences between the two stakeholder groups. In line with the final phase of the strategic assessment, recommendations have been proposed that provide directions to plug in the identified perceptual differences and bridge the employability gap.

8.5 Assessment of Employability Gap- A Peroration

It has been highlighted through the literature review that employability is a complex construct that can be investigated from different dimensions. Consequently, the void in employability i.e. employability gap can also be examined from different dimensions. Skill deficit or drawbacks in higher education system are the different dimensions that have been profoundly discussed in the literature in order to assess this gap.

The present study aims to assess the employability gap from another distinctive dimension i.e. perceptual gap. Having analysed and reported the results of perceptual differences of the stakeholders, it is imperative to present a peroration of the same i.e.to conclude or summarize the discourse by highlighting the principal points. Thus it is deemed fit to highlight the “what”, “why”, “where”, and “how” of the employability gap to understand its nature and the results of perceptual analysis. This is described below:

- To examine “what”, at the outset, the study highlights through the literature review that there exists a serious issue of employability gap that is much pronounced in the Indian Information Technology sector. This gap is primarily because of the fact that graduates are not found to be employable and job ready by the industry.
- To answer “why” this employability gap exists, this study substantiates one of the crucial reasons that there exists statistically significant perceptual differences on the fundamental predictors of employability at the level of the
two stakeholder groups i.e. employers and graduates. Such a perceptual gap widens the employability gap.

- To answer “where” this gap exists, the study establishes that such perceptual differences exist at the grass root level, i.e. variances in perceptions exist on the fundamental factors that are deemed to influence employability (Chapter 7). These factors are highlighted through the macro and micro variables of study. Almost all the factors that are deemed to influence employability are considered more significant by the employers as compared to the graduates. The graduates place a much lesser significance on these predictors of employability as compared to the employers. A clear lack of synchronization between the employers and graduates on the knowledge and skill requirements is magnifying the employability gap. Such contrasting opinions between the two key stakeholders exists on the very basic question that “what makes a graduates employable” which in turn surely amplifies the employability gap.

- To answer “how” to bridge the employability gap, the study proposes robust recommendations to plug in the perceptual differences between the employers and graduates that would in turn abbreviate the existent employability gap. The implications for graduates, industry and higher education institutions have also been discussed further.

9. TRIANGULATION OF RESULTS
The results of the study have been triangulated using data triangulation and methodological triangulation techniques to bring in congruence and convergence in the findings.

9.1 Data Triangulation
In the present study, data triangulation is used in context of the respondent groups. The data has been collected from two different stakeholder groups i.e. employers and graduates to capture their perceptions on the significance of graduate employability. The responses of these two groups is compared in the Table 10.
Table 10: Data Triangulation

TRIANGULATION RESULTS FOR MACRO VARIABLES

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Variables</th>
<th>Opinion Survey of Employers (Regression Analysis)</th>
<th>Opinion Survey of Graduates (Regression Analysis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Technical Skills</td>
<td>All the three macro variables considered significant</td>
<td>All the three macro variables considered significant</td>
</tr>
<tr>
<td>2</td>
<td>Organizational Knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Personal and Interpersonal Skills</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TRIANGULATION RESULTS FOR CONTROLLED IMPACT OF MICRO VARIABLES

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Variables</th>
<th>Opinion Survey of Employers (Regression Analysis)</th>
<th>Opinion Survey of Graduates (Regression Analysis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Technical Specialties Knowledge</td>
<td>Significant</td>
<td>Significant</td>
</tr>
<tr>
<td>2</td>
<td>Technology Management Skills</td>
<td>Significant</td>
<td>Insignificant</td>
</tr>
<tr>
<td>3</td>
<td>Communication Skills</td>
<td>Significant</td>
<td>Significant</td>
</tr>
<tr>
<td>4</td>
<td>Problem Solving and Critical Thinking Skills</td>
<td>Significant</td>
<td>Insignificant</td>
</tr>
<tr>
<td>5</td>
<td>Creative Thinking Skills</td>
<td>Insignificant</td>
<td>Insignificant</td>
</tr>
<tr>
<td>6</td>
<td>Teamwork and Interpersonal Skills</td>
<td>Significant</td>
<td>Insignificant</td>
</tr>
<tr>
<td>7</td>
<td>Organizational Knowledge</td>
<td>Significant</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Triangulation / Interpretation: It can be inferred from Table 1.10 above that both employers and graduates consider the three independent macro variables significant. However, while examining the controlled impact of the seven micro variables when taken together, the employers consider only one out of the seven i.e. Creative Thinking Skills as insignificant. However, the graduates consider four out of seven as insignificant. Only Technical Specialties Knowledge, Communication Skills and Organizational Knowledge are considered significant by the graduates. Therefore, the results obtained from the two groups have been triangulated for some of the research variables. However, a difference in findings on the other variables across the two groups indicate perceptual differences between employers and graduates that has been highlighted in this study.

9.2 Methodological Triangulation

Methodological triangulation is used to cross validate the results of multiple methods that are used in the same study. In the present research, both qualitative and quantitative techniques have been used. The results of the same are summarized in Table 11 below.
Table 11: Methodological Triangulation

<table>
<thead>
<tr>
<th>Methods</th>
<th>Literature Review</th>
<th>Total Interpretive Structural Modeling (TISM) (Qualitative Method)</th>
<th>Regression Analysis (Quantitative Analysis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Skills</td>
<td>2 micro variables identified from the literature review</td>
<td>• 2 Drivers (Technology Management Skills, Technical Specialties Knowledge)</td>
<td>• Both Technology management skills and Technical Specialties Knowledge found significant</td>
</tr>
<tr>
<td>Personal and Interpersonal Skills</td>
<td>4 micro variables identified from literature review</td>
<td>• 1 Driver (Communication Skills) • 3 Enablers (Problem Solving and Critical Thinking Skills, Creative Thinking Skills, Teamwork and Interpersonal Skills)</td>
<td>• All the micro variables of Personal and Interpersonal Skills are found significant</td>
</tr>
<tr>
<td>Organizational Skills</td>
<td>No micro variables defined</td>
<td>• Enabler</td>
<td>• Organizational Knowledge found significant</td>
</tr>
</tbody>
</table>

The research constructs were identified through the literature review. The TISM results revealed that all the micro constructs identified through the literature review were further endorsed by the industry experts. A subsequent empirical validation of the micro constructs by the employers through regression analysis verified that these skill categories are considered significant by the employers.

10. REVISITING THE RESEARCH OBJECTIVES

This section summarizes the key findings of the study in the light of the objectives.

10.1 Identification of Research Variables

Analysing graduate employability, perception differences among key stakeholders and its subsequent influence on employability gap is one of the fundamental premise of this research. Therefore, at the initial stage, it becomes pertinent to identify the factors that influence graduate employability in this sector as envisaged in the first research objective. Based on the available literature in domain, three macro independent variables of research were identified: Technical Skills, Personal and Interpersonal Skills, and Organizational Knowledge. Further, four micro variables...
were identified to constitute the Personal and Interpersonal Skills and two key skills (micro variables) were found to constitute the Technical Skills.

10.2 Interrelationships among the Research Variables

Subsequent to identification of these predictors of graduate employability, qualitative analysis through Total Interpretive Structural Modeling was undertaken. This enabled the preliminary validation of the identified research constructs and understand the relationship and interaction among them as envisaged in the second research objective. All the macro and micro constructs of the study were endorsed by the experts. These constructs are found to be interrelated with each other. Also, the TISM results revealed that Communication Skills, Technical Specialties Knowledge and Technology Management Skills are the key drivers of graduate employability in this sector.

10.3 Validation of the Conceptual Model of Research

Although research constructs for the present study have been largely drawn from the literature, a preliminary validation and an analysis of the interaction among them has enabled to formulate the hypotheses and the conceptual model of research. As envisaged in the third research objective, the conceptual research framework has been developed and empirically validated using multivariate data analysis techniques. This validation has been done from the perspectives of both, employers and graduates, for macro and micro variables of research.

10.4 Perceptual Differences among Employers and Graduates

As envisaged in the fourth and fifth research objective, the perceptual differences between the two stakeholder groups (employers and graduates) on the factors that influence employability have been explored. The results of one way ANOVA reveal that a statistically significant difference exists in the perception of these two groups on all the identified variables of employability. In line with the fifth research objective, the areas for such perceptual differences has been analysed by synthesizing the results of the regression analysis obtained from the opinion survey of employers and graduates. The results obtained from the collated findings reveal that majority of
the macro and micro variables are considered more significant by the employers than the graduates.

11. KEY CONCLUSIONS

The key conclusions of the study are listed below:

- Drawing from literature review, three macro variables (Technical Skills, Organizational Knowledge, Personal and Interpersonal skills) and six constituting micro variables were identified and subjected to qualitative analysis (TISM) to gain a deeper insight into their interrelationships.
- All the eight variables of study (six micro variables of Technical Skills and Personal and Interpersonal Skills, Organizational Knowledge, Employability) were endorsed by the industry experts. The hierarchical modelling highlighted the significance of three micro variables namely Technical Specialties Knowledge, Technology Management Skills and Communication Skills, as the strong drivers of Employability.
- Based on the literature review and further qualitative analysis, conceptual research framework (linking antecedents with Employability), was proposed and was further validated with the help of two empirical surveys conducted for the two stakeholder groups (employers and graduates)

The key conclusions drawn from the results of two opinion surveys are summarized as follows.

Employers’ Perception on Factors Influencing Employability

- All the three macro variables and six micro variables are perceived significant by the employers for employability.
- The employers perceive that the two macro variables i.e. Technical Skills and Personal and Interpersonal Skills are more significant for employability than the Organizational Knowledge.
- At the micro level, the employers consider that Technical Specialties Knowledge has a stronger influence on employability in comparison to Technology Management Skills.
The employers perceive that each of the seven independent micro variables (six micro variables of Technical skills and Personal and Interpersonal skills, and Organizational Knowledge) as significant for employability when considered separately, however, one of them i.e. Creative Thinking Skills was not found to be significant when all the micro variables were taken together.

Analysing the controlled impact of variables i.e. when all the micro variables are taken together, highlighted the relatively greater importance attributed to Technical Specialties Knowledge (maximum beta value) and also the insignificance of Creative Thinking Skills.

Graduates’ Perception on Factors Influencing Employability

- As in case of employers, all the three macro variables and six micro variables are perceived significant for employability by the graduates.

- The graduates perceive that out of the three macro variables, Personal and Interpersonal Skills are most significant for employability followed by the Technical Skills and Organizational Knowledge.

- At the micro level, the graduates consider Technical Specialties Knowledge to have a stronger influence on employability than Technology Management Skills.

- While the graduates perceive each of the seven independent micro variables as significant when considered separately, however, only three of them i.e. Technical Specialties Knowledge, Communication Skills and Organizational Knowledge are considered significant under the controlled impact when all the seven micro variables are considered together.

- The graduates consider the Personal and Interpersonal Skills as most significant as compared to the other two macro variables (Technical Skills and Organizational Knowledge). However, analysing of the micro variables of Personal and Interpersonal skills highlighted a relatively lesser significance attributed Creative Thinking Skills and Problem Solving and Critical Thinking skills (low beta values) as compared to Communication Skills and Teamwork and Interpersonal skills. This indicates that though the graduates acknowledge that Personal and Interpersonal skills are crucial for employability, however, they do not comprehend this set of a comprehensive manner.
There exists a significant perceptual gap between the employers and the graduates with respect to the factors that influence employability. This striking perceptual gap is apparent with respect to all the independent variables (three macro variables and six micro variables) of study.

A vast majority of the factors that influence graduate employability are considered more significant by the employers than the graduates. On a broader parlance, this justifies the statistically significant perceptual difference that has been observed between the two stakeholder groups.

A comparative investigation at the macro level reveals that all the three variables i.e. Technical Skills, Personal and Interpersonal Skills and Organizational Knowledge taken together are considered more significant by the employers than the graduates.

Technical Skills and Organizational Knowledge are considered more significant by the employers than the graduates. This shows while the employers consider these skills as important for employability, the graduates do not lay an equal emphasis on them.

A comparative examination at the micro level also highlights significant differences in perceptions of the two stakeholder groups. With respect to the influence of two micro variables of Technical Skills on employability, the employers perceive that these two variables taken together account for a much higher variability in employability (75.5%) as compared to the graduates (57.7%).

Exploring the two micro variables of Technical Skills distinctly across the employers and graduates, it is notable that both Technical Specialties Knowledge and Technology Management Skills are considered more significant by the employers than the graduates.

Perceptual differences between employers and graduates are also notable while analysing the four micro variables of Personal and Interpersonal Skills. As compared to the graduates, the employers perceive that these four micro variables when taken together explain for a much high variation in employability (71.2%). The graduates perceive that these skills account for only 59.8% variability in employability.
With respect to the four micro variables of Personal and Interpersonal Skills, the Problem Solving and Creative Thinking Skills and Teamwork and Interpersonal Skills are considered more significant by the employers than the graduates.

A marked difference is observed while comparing the influence of controlled impact of all the seven independent micro variables on employability across the two stakeholder groups. All these seven micro variables are considered significant by both the groups when analysed distinctly. However, when considered together, the graduates perceive that only three (Technical Specialties Knowledge, Communication Skills and Organizational Knowledge) out of seven variables are significant for employability. However, the employers perceive that six out of seven variables are significant. Creative Thinking Skills are considered insignificant by the employers under the controlled impact.

Under the controlled impact, the employers perceive that all the micro variables when taken together account for a much higher variability in employability as compared to graduates.

A comparison of the three common variables that are considered significant by both the groups under controlled impact, it can be inferred that Organizational Knowledge is considered more significant by the employers than the graduates. The graduates perceive Communication Skills are more significant than the employers.

The statistically significant perceptual differences and the areas of perceptual gap that have been revealed by the study contribute to widening the employability gap. The differences in viewpoints of the two key stakeholder groups i.e. employers and graduates on the fundamental postulation of the factors that are deemed to influence employability indicates a serious void. This perceptual gap at the roots is one of the crucial reasons for amplifying employability gap that is existent in the Information Technology sector.
12. MAJOR RECOMMENDATIONS

Based on the results of the study, recommendations are proposed to bridge the employability gap through the route of enhancing graduate employability and plugging in the perceptual differences. The same are listed below:

- **Focus on Technical Skills**: The significance of technical skills highlighted by the study calls for a need for the higher education institutions to impart most updated technical knowledge to the graduates. It is important that the curriculum is most updated and the pace of curriculum change matches with the pace of technology change. An active involvement of industry can be sought to endorse these changes. This would ensure that these skills are not obsolete and can be applied in the world of work.

- **Development of Key Skills**: The present study brings out that it is significant to develop the Technical Skills, Personal and Interpersonal Skills and Organizational Knowledge of the graduates to enhance their employability for potential technical jobs. As higher education institutions are considered as the breeding grounds for graduate employability, there exists a strong need to design the curriculum and align the teaching and learning methodologies that focus on both technical and non-technical knowledge and skill areas rather than a sole thrust of building technical expertise of the graduates which is predominantly dictated by the curriculum. Besides this, considering the limited resources on the part of higher education institutions, the students should become independent learners and should take self-initiatives to engage in workshops, training and development programs and other allied activities that aim to hone their skills.

- **Acknowledging significance of Technology Management Skills**: Technology Management Skills has been recognized as a significant skill area by employers, acknowledging the fast-paced volatile sector and incessant technological changes. Therefore, apart from gaining the technical knowledge like software packages / programming languages etc. as defined by the curriculum, it is important that the graduates develop their aptitude and capability to learn new technologies, understand the technological trends and develop their ability to apply the learnt technologies. This calls for a strong need for the higher education institutions to design training and development programs that focus on the logical and learning
abilities of the students, encourage faculties to upgrade their knowledge so that they can in turn impart knowledge to the students, facilitate sufficient resources for computing updates and align the speed of curriculum change relative to the technology change.

- **Development of Soft Skills:** The high level of importance placed on soft skills by the employers is another noteworthy result of the study. It can be observed that though many higher education institutions are following a directional change towards soft skills, still a gap in this regard indicates it is important that such skills should be built with the desired competency level rather than at the surface level. Though these skills are imparted by many HEIs, but the mere possession of these skills does not suffice. The combination of the requisite soft skills with the expected level of proficiency will provide graduates better access to jobs. Hence, it is significant to impart soft skills, gauge the level of proficiency gained by the student and equate it with the requirements of the industry.

- **Standardized Work Readiness Skill Training and Certification:** The development of soft skills calls for a strong need for work readiness skills training and certification. Such certification programs can include practical trainings on areas like soft skills and business functional knowledge that have been identified as crucial in this study. Also, such certifications should be standardized and embedded into the course curriculum with measurable results. This would help in stabilizing the uneven quality of graduates produced by different colleges.

- **Stakeholder Responsibility Approach:** The perceptual difference between the employers and graduates revealed in the study imply that the knowledge and skill areas deemed crucial for employability should be imparted with a stakeholder responsibility approach to meet the ever changing and demanding requirements of the industry. This would imply that imparting essential skills for employability should not be the sole responsibility of higher education institutions alone, rather, it should be a combined responsibility of the academia and industry. The industry, being a significant stakeholder, should fill in the void and contribute to the skill development through well designed and structured on the job trainings, personal and professional development programs for the employees and regular internal training programs that focus on the continuous development of employability skills.
of the new entrants. Further, the level of skill development in the university context and employer context should be clearly defined.

- **Robust Industry Academia Integration**: The industry academia integration is extensively highlighted in the arena of jobs and career advancement. However, the perception gap between employers and graduates revealed by the study indicates that this collaboration needs to be more robust. Rather than an engagement at the institutional level, a holistic tripartite partnership involving graduates, employers and HEIs may be the best process for producing graduates with the mixture of cognitive and behavioral skills deemed desirable. A more interactive and collaborative environment with the participation of all the three key stakeholders is imperative.

- **Intensified Academic Interventions by Companies**: The perceptual differences between the employers and graduates calls for intensified academic interventions by the industry. The companies should establish a strong, all-encompassing coalition with the higher education institutions involving the faculty, management and students. Such alliance can address crucial areas like curriculum amendment workshops, faculty development programs, research development, student internships and projects. Such initiatives have been taken by a few companies like Infosys has launched “Campus Connect” programme, Wipro has started “Wipro Academy of Software Excellence” in collaboration with BITS (Pilani) and Cisco has started “Cisco Networking Academy”. However, such initiatives are very few. An active participation of the multinationals in such initiatives can lead to a stronger academia industry interaction.

- **Enhancing Graduates’ Employability Skills through Faculty Empowerment**: Faculty can play an intermediate role to bridge the perception gap between employers and graduates. The continuous development of faculty would ensure that they are competent enough with updated knowledge and innovative teaching methodologies to enhance the capability of the students. The industry should actively collaborate with faculty in this regard to share industry best practices, new technologies, case studies and behavioural proficiencies to further enable the students.

- **Integration of Employability Development with Course Outcomes**: Though employability skills are imparted to graduates by the HEIs, however a more
structured and vigorous approach calls for a need to integrate employability development in the course outcome. Employability development program when formally integrated in the curriculum would make the students aware of the industry demands and would further narrow the perception differences. Accordingly, employability profile of the student can be developed on completion of program in collaboration with the industry that may be presented to the prospective employers for securing jobs.

- **Creation of a Collaborative Ecosystem:** The perceptual differences between employers and graduates revealed by the present study underline the need for a holistic association at the level of these two stakeholder groups. Such a concerted environment would imply moving beyond the guest lectures, internships and projects. A collaborative ecosystem would be a platform for the students and the employers to connect with each other directly. This can be done through the operationalization of online networking platforms to ensure a regular interaction between the employers and graduates. Such an online ecosystem can facilitate corporate mentors assigned to each student, knowledge sharing on global business trends, employability skills, technological advancements, projects and job opportunities and allied areas. A regular interaction of the students and directly with the industry professionals through such platforms would greatly help to bridge the perceptual differences.

- **Change in Pedagogical Methods:** The results of this study indicate that the pedagogical methods should reflect a change from memorization to developing capacity in students for areas like critical thinking, creative thinking, problem solving and the ability to apply the theory to practice. Such skills cannot be nurtured in the students through theoretical lectures or limited practical training sessions, rather, the development of such skills demand a gradual shift in the thinking process. Therefore, these skills should be infused in the students through innovative teaching practices rather than imparting them as theoretical courseware.

13. **IMPLICATIONS FOR KEY STAKEHOLDERS**

The implications of the findings of the research for key stakeholders namely higher education institutions, employers and the academia may be highlighted as follows:
13.1 Implications for Employers

The employability of graduates and bridging academia industry gap calls for a stronger collaboration of the industry with the academia. The academia industry integration has rather become a buzzword, and the perceptual differences revealed by the study imply there is a scope to strengthen the integration. In order to ensure that employable graduates are readily available, the IT companies need to intensify their association with the higher education institutions at the level of management, faculty and the students. Also, such collaboration is required across all strata of institutions like government, private and self-financed colleges spread across metro and other smaller cities. Furthermore, such alliance should span across all category of institutions rather than the foremost institutions. A steady and consistent interaction with the HEIs through meaningful initiatives would ensure that they are aware of the changing demands of the sector and the expectations from the graduates. The industry alliance can be much beneficial for faculty enrichment thereby enhancing their knowledge and skills which is further transferred to the students. Also, a step down collaboration at the senior school level can further help in nurturing the students at an early stage.

13.2 Implications for Potential Job Seekers

The conclusions drawn from this study has implications for students who are the potential job seekers. At the first stance, the significance of different knowledge / skill areas highlighted in the present study implies that the students should make well informed career decision and choice of higher education institution for studies. It is pertinent for the students to assess themselves and analyse if they possess the fundamental abilities, interest and the learning capacity to make a career in IT sector rather than just joining the bandwagon. Further, the choice of higher education institution is indeed a crucial decision while pursuing further studies. The students must assess the course curriculum, teaching methodologies, essential resources, training, internships, placements and other vital means of industry exposure offered by the institution. This would ensure that the offerings of the chosen HEI matches with the requirements of the industry. Also, once they join a particular HEI, the entire focus should not be to attain a degree. Rather, it is essential for these graduates to focus on their technical skills and also participate in co-curricular activities that offer
them robust platforms to develop and nurture their non-technical skills, get corporate exposure and make themselves job ready.

13.3 Implications for Higher Education Institutions

The present study highlights the issue of employability gap and perceptual differences between graduates and employers. While examining solutions to this issue, it is important to acknowledge the integral role of higher education institutions as the breeding grounds for employability. Thus, the study has implications for HEIs. These higher education institutions have the sole responsibility of churning novice students to employable graduates by imparting significant knowledge and skills in line with the demands of the industry. Considering the fact that such knowledge and skills have to be inculcated in the students in the limited time frame of the duration of the academic program, it is important that the institutions reinforce stringent student recruitment procedures. Especially, with the advent of self-financing institutions, huge compromises are made with the quality of admitted students to increase the intake which often leaves them unemployable. A scrutiny of the students at the recruitment stage would ensure that only those students who have an aptitude, interest and capability to pursue the course are admitted rather everyone joining the IT bandwagon. Furthermore, imparting knowledge and skills in line with the industry demands requires a strong academia industry collaboration. These HEIs must build close collaboration with the industry in the areas like curriculum design, curriculum revisions and upgradations, faculty development, student internships, guest lectures, projects and final placements. Furthermore, it is important that for a volatile and fast paced sector like Information Technology, the speed of curriculum change must align with the speed of technology change. This may call for frequent curriculum changes in contrast to the present system. Also, the faculty should be engaged in regular development programs and industry interaction platforms to upgrade their technical skills, understand the changing demands of the corporate and enhance their proficiency to further impart it to the students. Analysing the skills valued by employers at the workplace, there is need for qualitative improvement in education.
14. SIGNIFICANT RESEARCH CONTRIBUTIONS

Some of the significant contributions of this study are listed below:

1. The findings of the research reiterate the fundamental proposition that difference in the perception of key stakeholders contribute to and augment the employability gap.

2. The assessment of employability gap by way of analysing perceptual differences among the key stakeholders is notable. While majority of the literature analyses employability gap from the perspectives of a weak academia industry integration or gaps in higher education system, the present study brings to light the perceptual gap as the crucial reasons for amplifying the employability gap.

3. Substantiating perceptual gap between the two key stakeholder groups (employers and graduates) on the factors that influence employability by way of formulating, validating and deploying a conceptual model of research is a significant contribution of this study.

4. The development of comprehensive research framework, integrating employability and factors affecting it, in general and in specific context of Indian Information Technology sector is an original and valuable contribution of this research.

5. The use of qualitative analysis of the research variables through Total Interpretive Structural Modeling (TISM) technique to understand the relationship between the variables is an important contribution of this study. Also, the model assessment framework that has been employed to further confirm the acceptance of the proposed structural model is noteworthy.

6. This study modestly attempts to contribute to the stakeholder theory of organization management and business ethics given by Freeman (1984). In line with the stakeholder theory that lays an emphasis on the interests of the stakeholders, the present study acknowledges and compares the perception of the two key stakeholder groups i.e. employers and graduates while analysing the issue of employability.

7. This study attempts to contribute to the Resource Based View given by Barney (1991) for the competitive advantage of a firm. The resource based theory
examines the resources that the firm possesses and further assesses their capability to enhance the sustainability of the firm. In line with the same, the present study analyses the significant skills and knowledge areas deemed crucial for the entry level employees. A thrust on the skills of the human resource in the present study is a modest contribution to the theory.

15. LIMITATIONS OF THE STUDY
It is important to acknowledge the key limitations of this research considering the resource constraints in terms of time, money and efforts. These limitations are as follows:

- Opinion surveys have been used in this study to analyze the perception differences among the two stakeholder groups. There might exist a possible bias in the responses.
- Although the respondents to the empirical surveys encompass different states, however, majority of the responses have been largely drawn from the respondents in Delhi / NCR region only due to resource constraints. This limits the generalization of research model.
- Considering the much narrowed delineation of profile of the respondents, it was difficult to employ probability sampling techniques and hence non probability sampling technique have been used. Limitations in making generalizations using this sampling technique cannot be ignored.
- Due to the paucity of time and resources, this study focusses only on the IT sector.

16. SCOPE FOR FUTURE RESEARCH
Based on the insights gained from this study, the scope of future research in this area is discussed below:

- The study is focused on graduates at the bachelor’s level in the field of Information Technology and allied areas. However, it may be further extended to those at the master’s level for further generalization of the research framework.
Due to resource limitations in terms of time, this study is restricted to understanding the perception differences among two stakeholder groups i.e. employers and graduates has been examined. However, the scope of the research can be extended by including other stakeholders like institutions of higher education offering courses in Information Technology / Computer Science. The study is focused on understanding the perception differences between employers and fresher graduates. However, this perception gap can also be examined with regard to experienced professionals in the field.

The future study in this area can further explore the impact of external factors issues like economic situation, job opportunities etc. to understand the impact of such macro level factors on employability.

Considering a focused approach of the present study towards macro level issues, demographic or micro level analysis has not been incorporated in this study. Such an analysis can be taken up in future research that can include the impact of gender, length of work experience, size of the company etc. on the perception differences.

With the basic assumption that perceptual differences and employability gap is less when examined at the level of institutions of academic excellence, this study focusses on affiliated colleges and private universities that are churning graduates in big numbers. However, a future research in the area can include the responses from such premier institutions and compare the perceptions among of the graduates across the different categories of HEIs.

The study is focused on Information Technology sector, however, other sectors like ITeS can also be studied using the same model.
17. CONCLUDING REMARKS

This study can be regarded as an initiative to explore the complex landscape of employability and develop a model to portray its antecedents especially in context of Information Technology sector. Through the deployment of the research model, the perceptual differences between the key stakeholders have been revealed that further contribute to and augment the existing employability gap in the sector. Plugging the perceptual differences and employability gap is imperative for the continued growth of the sector in future.
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