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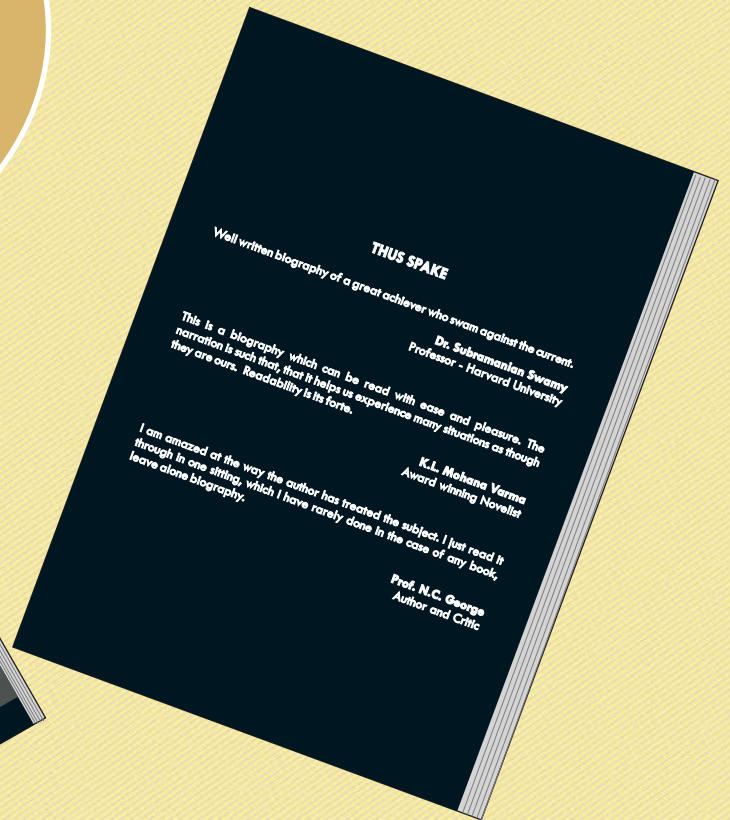
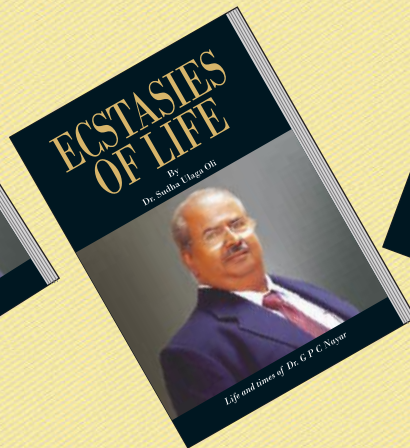
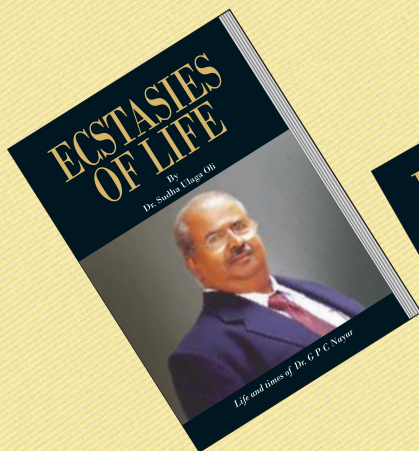
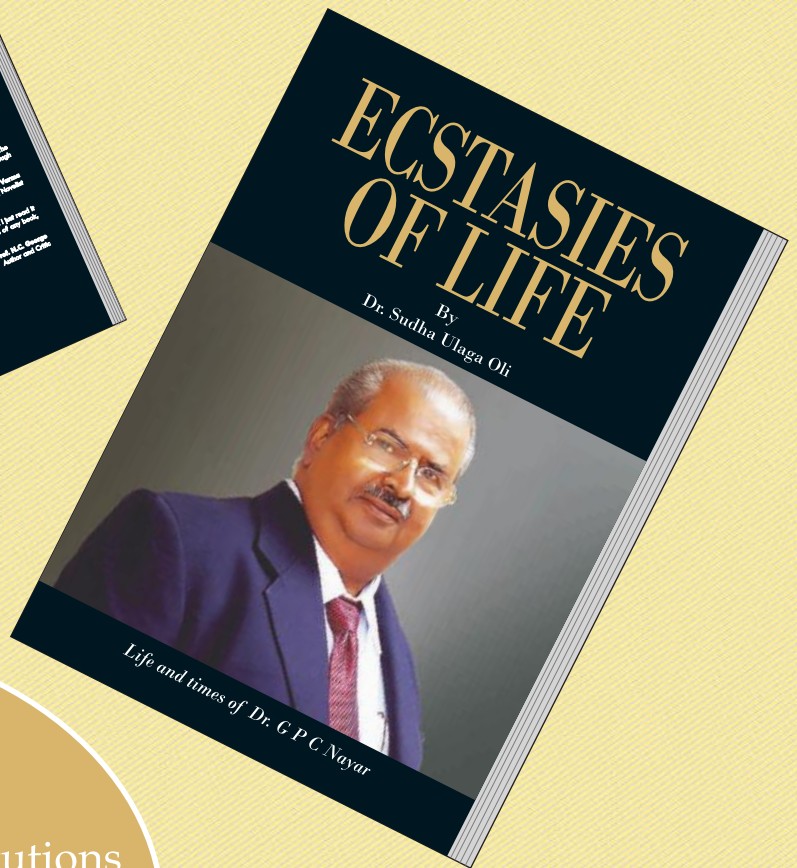
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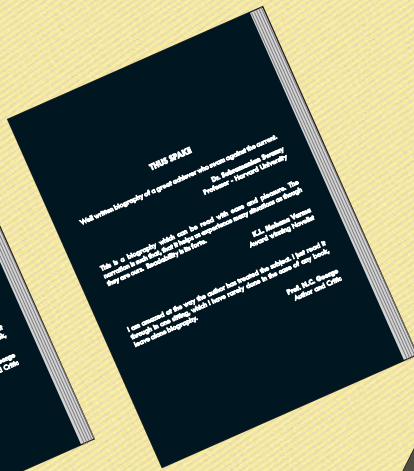
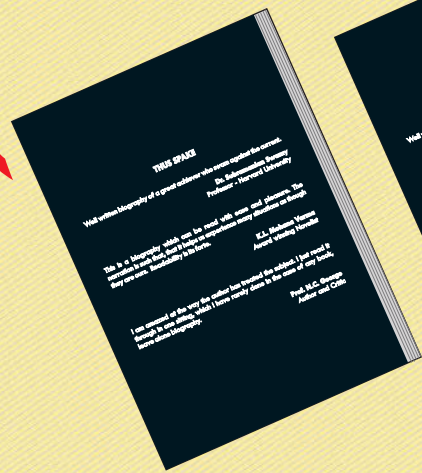
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Here's an entrepreneur who has created some excellent academic institutions in an unfriendly environment. It is a saga of trials and tribulations in an extremely readable manner by a consummate writer in English.



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Chairman's Overview



In our knowledge economy, talent is not only critical, but also scarce. While the job market is becoming more and more competitive, the requirement of skill sets for the employees continue to become more extensive and diverse. As a result, effective recruitment strategies are a pivotal aspect of acquiring high quality talent that can contribute to the organisation's growth and success. In effect, such strategies are what determine the quality of employees hired for the organisation.

Our lead article proposes a new holistic framework for employee selection by organisations. The benefits of using a holistic framework and the managerial implications are also discussed.

Notwithstanding the fact that the banking sector is becoming increasingly competitive around the world, the actual product being offered to the customers could be considered reasonably homogeneous. Consequently, there is an increased need for banks to differentiate themselves from competitors at the augmented product level. One way that this might be achieved is to develop long-term relationships with the key customers. Advances in IT have opened up new opportunities in this area. Many banks have turned to CRM to gain greater insights into their customers and apply this knowledge toward forging long-term relationships. Banks are well aware that their success is predominantly dependent on the CRM strategies adopted by them. Our second lead article is on moderating effects of CRM performance in banking industry.

Micro, small and medium enterprises sector has become the backbone of Indian economy by promoting large employment with lower capital cost and reducing regional imbalances through rural industrialisation. The third lead article deals with structural disparities in MSMEs.

In addition, as usual, we have in this issue a variety of learned articles on diverse contemporary topics such as banking performance, exchange traded gold funds, ASEAN-India Free Trade Agreement, impact of job embeddedness, employee engagement, occupational stress, et al.

I am confident that you will find this issue truly informative and educative.

Dr. G. P. C. NAYAR

Chairman, SCMS Group of Educational Institutions.

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Editorial



Working with Our Dreams

Dreams have fascinated man and mankind. Socrates (c. fourth Century B.C.) puts forth the question: "What proof could you give if anyone should ask us now, at the present moment, whether we are asleep and our thoughts are a dream, or we are awake and talking to each other in a waking condition?" Theaetetus failed to offer in response proof that they were awake. He acknowledged that they could both be dreaming. Dreams are a powerful alternative state of consciousness. This state gives us access to realms of being and imagination available in no other way. Dreams are our most potent natural resource. We have to integrate dreams into our lives. We need to pay attention to the dreams given to us and consider the messages they convey.

*The distinction between reality and illusion is questioned continuously in Lewis Carroll's famous book, *Through the Looking Glass*. Gerald Bullett, an English novelist, seemed to enjoy the enrichment provided by being a resident of both the waking and the dreaming worlds. In Bullett's essay he provides other interesting metaphors for those two domains of existence referring to "two self-contained rooms with the swing door called sleeping- and -waking, waking-and sleeping, pivoted between them."*

The philosopher Schopenhauer emphasized the equivalence of our dreaming and waking states. He wrote that "life and dreams are leaves of the same book" and contended that there was no clear distinction between their natures. D.H.Laurence confessed: "I can never decide whether my dreams are the result of my thoughts or my thoughts the results of my dreams."

A consensus exists among the authors mentioned above. Crossing the threshold from the waking state to the dreaming state enriches our sensory imagery and empowers our creative capacity. Travelers passing through the "portals of sleep" arrive in a wondrous land where crystal palaces gleam, enchanting music plays, and they are endowed with wizard-like power to solve the vexation riddles that were unsolvable in their limited waking world. There is something unique about our dreaming mind that deserves greater recognition.

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KESHAVA- Holistic Employee Selection Framework in the VUCA World

Ajith P.

Abstract

Ability to attract and retain talented people is a key attribute for evaluating companies for determining industry ranking. World's most admired companies' survey uses nine attributes to evaluate the reputation of the companies. Ability to attract and retain talented people is the first among nine attributes. The current practice of evaluating only knowledge, skill, and attitude may be insufficient for selecting the right employees for organizations operating in the VUCA world. This paper proposes a new holistic KESHAVA framework for employee selection by organizations operating in the VUCA world. Employees with high KESHAVA score are better equipped to perform and excel in the VUCA world. The benefits of using a holistic framework and the managerial implications are also discussed.

Key Words : VUCA World, Employee selection, Character, Competency, KESHAVA framework, K-positive, K-negative



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The dynamic and fast-changing nature of our world today is best described by managerial acronym- VUCA, short for volatility, uncertainty, complexity, and ambiguity. The mega trends driving the VUCA world are; digitization, the rise of emerging nations especially the BRICS, and sustainability. Business leaders who are values-led and purpose-driven have to redefine the role of business in society and shape them with the right values and culture to achieve service excellence (Manwani, 2013). Rational leadership capability alone is no longer adequate and needs to be complemented with a new set of competencies associated with developing 'wise' responsible leaders who can steer organizations to sustainability and responsible growth while putting purpose along with profits. Higher order thinking and decision-making skill aligned with values and vision, and incorporating the best possible outcome for all stakeholders, is expected from business leaders of VUCA world.

Ability to attract and retain talented people is a key attribute for evaluating companies for determining industry ranking (Haygroup, 2014). World's most admired companies' survey uses nine attributes to evaluate the reputation of the companies (see Appendix 1 for all nine attributes). Ability to attract and retain talented people is the first among nine attributes. This proves that the reputation of an organization is heavily dependent on the right talent selection. The public face of a service firm is its contact employees and they often perform a complex and difficult job (Bateson, 1995). From the customer's point of view, the employees are the service (Schneider and Bowen, 1995; Surprenant and Solomon, 1987; Tansik, 1990), and their attitudes and behavior have a significant impact (Hartline and Ferrel, 1996). The service economy (57% of Indian GDP 2013-14) mandates that marketing transforms its scholarship and practises to embrace what really matters; value co-creation and delivery, customer relationships, and customer equity often provided by employees, not generally thought of as marketing or salespeople. The recruitment, training, and motivation of employees, beyond the sales force, must become a priority because these associates are often the service providers delivering the value and building the relationships with customers (Brown and Bitner, 2006).

Human resource focus is one category among the seven categories in performance excellence measurement for Malcolm Baldrige National Quality Award (USA). The Human Resource Focus Category examines how the organization's work systems and employee learning and motivation enable employees to develop and utilize their full potential in alignment with the organization's overall objectives and action plans. Also examined are the organization's efforts to build and maintain a work environment and an employee support climate conducive to perform excellence and to personal and organizational growth (BNQP, 2010). The capacity for leading in VUCA world depends on a well-developed mindset for gauging (knowledge management & sense-making) the realities of the environment in which employees work.

This paper has three objectives namely; (1) Discuss the role of employees and employee selection in VUCA world; (2) Introduce the holistic KESHAVA framework; (3) Explain the benefits of using KESHAVA framework for employee selection in VUCA world.

Role of Employees in a High-Tech and High-Touch VUCA World

VUCA world with technological disruptions provide a unique opportunity to leverage individual talent and collective capability through tech advances. The fear that technology will reduce the role and relevance of values driven employees is unfounded. Great technologies always bring with them the power of great possibilities, and have proven their ability to amplify people and societies time and again. The world is poised at the cusp of incredible opportunity to leverage technology and augment individual talent and collective capability (Sikka, 2014). Though human perception and physical abilities may be finite and hence can be augmented and even replaced, but human imagination and creativity have no limits. That is why it must be our pursuits to become more humane and to have technology enable us to further enhance our humanity. Providing even high-tech services with high-touch is an imperative in the VUCA world. Ensuring high touch or an empathetic and exemplary service is impossible without the right employees (having good character and competence in equal measure) who are most suited for the VUCA world. This makes right selection of employees the most fundamental and critical task for any organization in the VUCA world.

Employee Selection in VUCA World

To perform a task well an individual needs the right Knowledge, Skills and Attitudes (KSA). Knowledge, Skills and Attitude is a list of special qualifications and personal attributes that one needs for a particular job. These are the requirements that the hiring organization wants to find in the person being considered to fill a particular job to verify the job-person fit. How well an applicant can show that he/she matches the position's defined KSAs determines whether he/she will be seriously considered for the job.

If an individual has qualifications and skills which will help him to remain in demand (job market), industry relevant (domain expertise), capable, adaptable, flexible with the right behavioural, communication, interpersonal skills required for factoring the challenges of the real practical world, that person is considered to possess employability skills (Wadadkar, 2015).

Knowledge, Skills and Attitudes (KSA)

Knowledge refers to an organized body of information, usually of a factual or procedural nature, which, if applied,

makes adequate performance on the job possible. Skill refers to the proficient manual, verbal, or mental manipulation of data or things. Skills can be readily measured by a performance test where quantity and quality of performance are tested, usually within an established time limit. It is also referred to as expertise when the skill is perfected through training or practice. Attitude refers to a predisposition or a tendency to respond positively or negatively towards a certain idea, object, person, or situation. Attitude can be formed from a person's past and present. Attitude is measurable, changeable, and influences the person's emotion and behavior. Attitude influences an individual's choice of action, and responses to challenges, incentives, and rewards (Allport, 1935).

Nishkama-Karma Model and Employee Selection

Internal marketing, treating employees as customers, is well acknowledged as an essential part of services marketing. Kotler et al. (2007) defined internal marketing as the task of hiring, training and motivating able employees who want to serve customers well. The primary step for effective internal marketing is to select the right and best employee of the organization. Paninchukunnath and Jain (2010)

recommended a model (see Figure 1) based on Nishkama-Karma concept in Indian Philosophy. It is employees, who through their understanding of a company's ideology, truly build an image of the organization in the minds of customers and other stakeholders. Corporate culture shapes the internal environment of a service organization. It includes factors such as vision, mission, values, commitment to continuous improvement, customer orientation, ethical conduct etc. Thus to shape the employee behavior, Nishkama-Karma concept has to be made an integral part of service organization's culture. This will reinforce the efforts undertaken to shape the new employees in the initial days in the organization. Living the right values, right attitude and demonstrating the appropriate behaviours (as given in Figure 1) by all employees will spread a Nishkama-Karma culture across the organization and help the organization to sustain service excellence and achieve service leadership. The values in the model are based on AMA ethics code and the employee behaviours are based on the study done with 113 consumers who availed interpersonal services and experienced service satisfaction. The focus of employees with nishkama attitude will be to undertake selfless service and not on the personal gains.

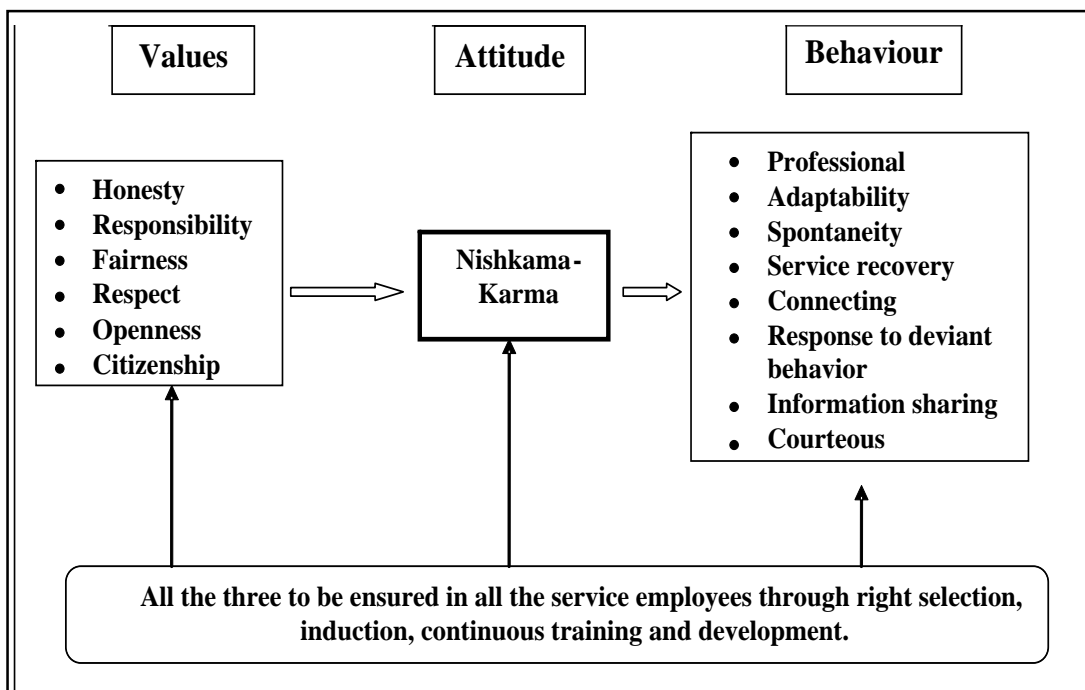


Figure 1. Nishkama-Karma Model for achieving service excellence in interpersonal services (Paninchukunnath and Jain, 2010)

Limitations of the Current Frameworks

The existing KSA framework (knowledge, skill and attitude) is an integral part of job analysis and especially job specification for most organizations today. In the VUCA world, KSA framework as a selection tool can fall short in assessing the right candidates who are having good character and competence. It does not capture the potential employee's values, emotional intelligence, hardworking orientation and the ambition to grow and self actualize. This makes KSA framework insufficient to check for the employee-job fit and especially employee-organization fit for any organization which wishes to compete, win and achieve excellence in VUCA world. Nishkama-Karma Model is useful in employee selection but it does not discuss the skill dimension and does not directly discuss hardworking orientation, ambition to self-actualize and emotional intelligence which are critical qualities needed in employees of an organization which wants to excel in VUCA world. Given the narrow approaches adopted by majority of the organizations, the need for a holistic framework is very high. In the next section, an attempt to propose a holistic framework is made.

The Holistic KESHAVA Framework

This paper is proposing a holistic framework for employee selection in the VUCA world- the KESHAVA framework (K-framework). The framework consists of seven key qualities needed in an employee to adapt and perform in a VUCA environment. The organizations need to explore all the seven components in an applicant to assess his/her fitness to face the organizational challenges in the VUCA world.

The components of the holistic KESHAVA framework are-Knowledge, Emotional Intelligence, Skill, Hardwork, Attitude, Values and Ambition. The importance and benefits of each component is delineated below.

1. Knowledge—It is the first component of K-framework. Knowledge is a familiarity, awareness or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning. Knowledge can refer to a theoretical or practical understanding of a subject. Today we are living in a knowledge era. There is a lot of truth in the idiom, 'Knowledge is power.' Knowledge truly empowers us.

Knowledge helps us make informed decisions. Education and training can provide knowledge, skills, imagination, creativity and entrepreneurial qualities to find and solve the challenges of VUCA world.

Knowledge is not necessarily gleaned from books in a classroom. It could come from experience or from just watching other people's lives. According to Peter Drucker, knowledge has to be improved, challenged, and increased constantly, or it vanishes. Knowledge workers are workers whose main capital is knowledge. 'Learnability' or our ability to learn has always been and will remain at the heart of our continued relevance and success. We must renew our existing skills, constantly improve, and improve our ability to improve. Learning and practising new things should be a part of daily life. In the VUCA world all employees have to be knowledge workers who are committed for lifelong learning. They should acquire right and relevant knowledge all the time. Alvin Toffler once wrote- "*The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.*" To succeed in VUCA world, an employee must be in a constant state of adaptation – continually unlearning old rules and relearning new ones. That requires continually questioning assumptions about how things work, challenging old paradigms, and relearning what is now relevant in one's job, industry, career and life. Employees have to re-engineer their jobs while doing them in the VUCA world which is possible only if they possess the relevant knowledge.

2. Emotional Intelligence (EI)—It is the second component of K-framework. The employees has to be emotionally intelligent to express and promote positive emotions like laughter, joy, happiness, wonder, interest and there by ensure positive service climate within the organization (Paninchukunnath, 2008). Emotional Intelligence, as a psychological theory, was developed by Peter Salovey and John Mayer. EI is the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth (Mayer and Salovey, 1997).

For decades, researchers have studied the reasons why a high IQ does not necessarily guarantee success in the classroom or the boardroom. By the 1980s, psychologists and biologists, among others, were focusing on the

important role of other skill sets — needed to process emotional information — played in promoting worldly success, leadership, personal fulfillment, and happy relationships. In 1990, psychologists John Mayer and Peter Salovey of Yale theorized that a unitary intelligence underlay those other skill sets. They coined the term ‘emotional intelligence’ which they broke down into four branches:

- Identifying emotions on a nonverbal level
- Using emotions to guide cognitive thinking
- Understanding the information emotions convey and the actions emotions generate
- Regulating one’s own emotions, for personal benefit and for the common good

Goleman(1995) argued that existing definitions of intelligence needed to be reworked. IQ alone was no guarantee of adeptness in identifying one’s own emotions or the emotional expressions of others. It took a special kind of intelligence to process emotional information and utilize it effectively — whether to facilitate good personal decisions, to resolve conflicts, or to motivate oneself and others. Goleman broadened Mayer’s and Salovey’s four-branch system to incorporate five essential elements of EI. They are:

- a. **Emotional self-awareness** - Knowing what one is feeling at any given time and understanding the impact those moods have on others. Hallmarks of self-awareness include self-confidence, realistic self-assessment, and a self-deprecating sense of humor.
- b. **Self-regulation** - Controlling or redirecting one’s emotions; anticipating consequences before acting on impulse; the ability to control or redirect disruptive impulses and moods. Hallmarks include trustworthiness and integrity; comfort with ambiguity; and openness to change.
- c. **Motivation** - Utilizing emotional factors to achieve goals, enjoy the learning process and persevere in the face of obstacles. Hallmarks include a strong drive to achieve, optimism even in the face of failure, and organizational commitment.
- d. **Empathy**- Sensing the emotions of others. Hallmarks include expertise in building and

retaining talent, cross-cultural sensitivity, and service to clients and customers.

- e. **Social skills** - Managing relationships, inspiring others and inducing desired responses from them, an ability to find common ground and build rapport. Hallmarks include effectiveness in leading change, persuasiveness, and expertise building and leading teams.

The above five elements are also considered as key soft skills needed in employees by many organizations though they may not use the term EI. Engaging employees is one of the top five most important challenges for management, according to a survey of 656 CEOs from countries around the world (Wah, 1999). Employee engagement is the degree to which individuals are personally committed to helping an organization by doing a better job than what is required to hold the job. Kahn (1990) defines employee engagement as - the harnessing of organization member’s selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances. An emotionally intelligent employee will be better engaged and therefore perform better in the roles assigned from time to time. Emotionally intelligent employees express and promote positive emotions like laughter, joy, happiness, wonder, interest etc. and thereby create a very positive environment in the organization.

3. Skill—It is the third component in K-framework. It is the learned ability to carry out a task with pre-determined results often within a given amount of time, energy, or both. Skills can often be divided into domain-general and domain-specific skills. In the domain of work, some general skills would include time management, teamwork and leadership, self-motivation and others, whereas domain-specific skills would be useful only for a certain job. Skills like - higher order thinking skills (HOTS),whole brain thinking (WBT), design thinking (DT), continuous learning, self management, right decision making and leadership can be enhanced through management education (Paninchukunnath, 2013).

Competency is cluster of related abilities, commitments, knowledge, and skills that enable a person to act effectively in a job or situation. Competence indicates sufficiency of knowledge and skills that enable someone to act in a wide variety of situations. People need a broad range of relevant

skills in order to contribute in a VUCA world. It is the employee who has proactively worked to expand and diversify his/her skill sets who will be the most well placed to take higher responsibilities.

The following list provides a brief illustrative overview of the knowledge, skills, work habits, and character traits commonly associated with 21st century skills (Source:Edglossary.org);

- Critical thinking, problem solving, reasoning, analysis, interpretation, synthesizing information
- Research skills and practices, interrogative questioning
- Creativity, artistry, curiosity, imagination, innovation, personal expression
- Perseverance, self-direction, planning, self-discipline, adaptability, initiative
- Oral and written communication, public speaking and presenting, listening
- Leadership, teamwork, collaboration, cooperation, virtual workspaces
- Information and communication technology (ICT) literacy, media and internet literacy, visual interpretation, data interpretation and analysis, computer programming
- Civic, ethical, and social-justice literacy
- Economic and financial literacy, entrepreneurialism
- Global awareness, multicultural literacy, humanitarianism
- Scientific literacy and reasoning, the scientific method
- Environmental and conservation literacy, ecosystems understanding
- Health and wellness literacy, including nutrition, diet, exercise, and public health and safety

4. Hardwork—It is the fourth component in the K-framework. Right work ethics and the willingness to work hard is a critical quality needed to survive and win in VUCA world. Hardworking people habitually work diligently and for long hours. This does not mean that they are workaholics. They consider work as worship and derive pleasure out of their

work. Goal oriented and well planned hardwork can lead to smart work. Smart work demands that one should prioritize work, be creative and complete work in or before time with effectiveness and efficiency. Winning is often found in mastery of the details and excellence consists of examining and improving many small processes and routines (Kanter, 2012). Though assessing the hard and smart working nature of an individual, is difficult during the interview stage, the past achievements and work habits can be good indicators.

5. Attitude—It is the fifth component in K-framework. The Mahabharata (one of the two major Sanskrit epics of India) extensively explores dharma. Dharma is a complex word that encompasses virtue, duty and law. Above all dharma is chiefly concerned with doing the right thing. The epic believes that human flaws are ultimately responsible for all destruction and calamity and that exercise of dharma or righteousness is the only way to salvage this destruction. The dharma of an employee in a service firm is to serve the customer with nishkama attitude (Paninchukunnath, 2010).

The concept of Nishkama-Karma, described in (chapter 2, verse 47) Bhagavad Gita, is the best concept to motivate and guide the actions of service employees while interacting with customers. The concept as per Gita advocates-” *To action alone hast thou a right and never at all to its fruits; let not the fruits of action be thy motive; neither let there be in thee any attachment to inaction*” (Prabhupada, 1989). There are three considerations here: prescribed duties, capricious work, and inaction. Prescribed duties are activities enjoined in terms of one’s acquired modes of material nature. Capricious work means actions without the sanction of authority, and inaction means not performing one’s prescribed duties. Lord Krishna advised that Arjuna not be inactive, but perform his prescribed duty without being attached to the result. One who is attached to the result of his work is also the cause of the action. Thus he is the enjoyer or sufferer of the result of such actions.

As far as prescribed duties are concerned, they can be fitted into three subdivisions, namely routine work, emergency work and desired activities. Routine work performed as an obligation in terms of the scriptural injunctions, without desire for results, is action in the mode of goodness. Working with expectation of specific desired results becomes the cause of bondage; therefore such work is not auspicious. Everyone has his proprietary right in regard to prescribed

duties, but should act without attachment to the result; such disinterested obligatory duties doubtlessly lead one to the path of liberation (self-actualization). Lord Krishna instructs that everyone has the right to perform actions in order to purify one's existence and advance in spiritual knowledge. But one's should not cultivate one's mind to think that by the right to perform actions, one receives rewards. This mentality is destructive to advancement because then one will get attachment to the actions and then subsequently to the rewards. According to Lord Krishna, one should neither be attached to results of action nor to inaction of not performing one's prescribed activities. We should not allow our egos to dictate to us that we should be inactive because then we incur the sin of non-committance in performing our natural duties every day.

Arjuna (service employee in this context) was therefore advised by the Lord to fight (serve customers) as a matter of duty without attachment to the result. His nonparticipation in the battle (deciding not to work/serve customers) is another side of attachment. Such attachment never leads one to the path of salvation (personal growth). Any attachment, positive or negative, is cause for bondage. Inaction is sinful. Therefore fighting (the enemies/serving customers) as a matter of duty was the only auspicious path of salvation for Arjuna (Prabhupada, 1989). The Nishkama-Karma attitude of service employees is beneficial for themselves, organization and customers as shown in the **Table 1** below;

Table 1- Comparison of Nishkama-karma (the right attitude) and Sakam-karma (self-interest driven).

<i>Nishkama-Karma</i> (selfless approach)	<i>Sakam-Karma</i> (self- interest driven)
⇒ Benefit for employees	
Psychological energy conservation	Burnout
Reactionless, steady action	Reactionful, erratic action
Perfection (as the aim)	Success
Inner autonomy	Dependence on praise etc.
Freedom	Bondage
Work-as-worship for excellence	Competitive rivalry
Mind-enrichment	Job-enrichment
Leads to yoga with the higher self	Alienation
Better concentration and focus	Distraction
⇒ Benefit for organization	
Socio-economically appropriate	Questionable
Work-commitment	Reward
Employee engagement	Detachment
⇒ Benefit for customers	
Satisfying service experience	Ordinary/poor service experience

Source-Adapted from 'Ethics in Management' by Prof. S. K. Chakraborty(2006)

The Gita defines karma yoga as acquiring expertise in one's activities and lays down four basic principles as; (1) Activities can be controlled; (2) The results of activities cannot be controlled; (3) An obsession with the results desired from activities must not be inculcated; (4) Discrimination between necessary and unnecessary activities; and a commitment to perform necessary activities. As per Adhia (2015), karma yoga has six tenets; (1) Whatever activity we do should not be against the normally accepted socio-ethical code of conduct of a society; (2) Whatever role we have chosen to play in life or which God has given to us should be performed most diligently, without any laxity and with utmost care; (3) Our focus should be mainly on the present activity at hand and not on the fruits which that action is likely to bring for us; (4) Acceptance of whatever results come as God's blessings; (5) Absence of sense of doer-ship or ego; (6) Share whatever fruits you have got in life with all others, whether it is money, knowledge or credit. All the six tenets in brief can be summarized as - any activity done without 'selfishness', 'carelessness' and without 'ego', can become a karma yoga (a state of blissful action). Such an attitude in everything we do is the karma yoga attitude to work and life.

Singh and Singh (2012) have proposed four dimensions of Karma orientation of salespersons: work as selfless action, work as duty towards others, detachment from work-related rewards, and equanimity under environmental influences. Along with '*Nishkama Attitude*,' when the employee is having positive attitude, the benefits to organization magnifies many fold. Positive attitude manifests in the employee in the form of positive, constructive and creative thinking; optimism, motivation, and energy to do things and accomplish goals, and a happy demeanor.

6. Values—It is the sixth component in K-framework. Rokeach (1973) defined values as enduring beliefs that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence. 'Enduring beliefs' means that; values are generally stable, although they can change as people continue to make decisions that involve putting one value ahead of another. According to American Marketing Association (AMA) values represent the collective conception of what people find desirable, important and morally proper. Values serve as the criteria for

evaluating the actions of others. Marketing practitioners must recognize that they not only serve their enterprises but also act as stewards of society in creating, facilitating and executing the efficient and effective transactions that are part of the greater economy. Marketers must embrace, communicate and practise the fundamental ethical values that will improve consumer confidence in the integrity of the marketing exchange system. Values for marketers which are intentionally aspirational include honesty, responsibility, fairness, respect, transparency and citizenship (AMA, 2014).

- **Honesty**—to be truthful and forthright in our dealings with customers.
- **Responsibility**—to accept the consequences of our marketing decisions and strategies. Make strenuous efforts to serve the needs of customers.
- **Fairness**—to try to balance justly the needs of the buyer with the interests of the seller.
- **Respect**—to acknowledge the basic human dignity of all stakeholders. Value individual differences and avoid stereotyping customers. Listen to the needs of customers and make all reasonable efforts to monitor and improve their satisfaction on an ongoing basis.
- **Transparency** – to create a spirit of openness in marketing operations.
- **Citizenship**—to fulfill the economic, legal, philanthropic and societal responsibilities that serve stakeholders in a strategic manner.

As per Chakraborty and Chakraborty (2005), the foundation of ethics in practice lies in values within. Values are the cause and ethics is the effect. Behaviour is the purest form of the expression of one's values, intent, priorities and feelings. Good behavior of employees emanates from the good value system present in them and the values nurtured by the leaders of the organization.

Terminal Values (TVs) and Instrumental Values (IVs)

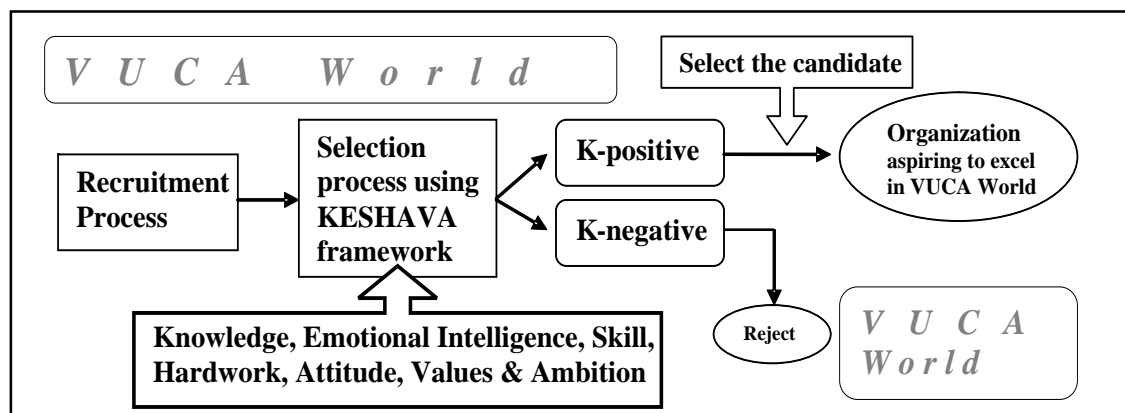
According to Rokeach (1973), there is a difference between values that are modes of conduct and values that are end-states of existence. Values that are modes of conduct are referred to as instrumental values. Values that are end-states of existence are terminal values. TVs are the goals that we

work towards and view as most desirable. These values are desirable states of existence. They are the goals that we would like to achieve during our lifetime.

Instrumental values are the preferred methods of behavior. They can be thought of as a means to an end. IVs consist primarily of personal characteristics and personality traits such as honest, polite, and ambitious. IVs are core values, permanent in nature, comprise personal characteristics and character traits. IVs include values like honesty, sincerity, ambition, independence, obedience, imaginativeness, courageousness, competitiveness, and also some negative traits.

7. Ambition—It is the seventh and final component in K-framework. An employee has to be ambitious to grow and take higher responsibilities. There should be an internal

motivation and a strong drive to achieve high professional standards and excellence. Employees should have passion to work for internal reasons that go beyond money and status (which are external rewards). A clear inner vision of what is important in life, the joy in doing something good for self and others, curiosity in learning, a flow that comes with being immersed in an activity which is useful for all. Lack of ambition to grow and achieve self actualization among employees can adversely affect the growth and expansion plans of any organization. Ambition can be assessed by checking his/her clarity about goals and the propensity to pursue goals with energy and persistence. The willingness to attend training both in-house and external in different parts of the country; as well as the willingness to undertake challenging assignments or leadership roles whenever needed is also indicators of ambition.



Source: Developed by the author

Figure 2: KESHAVA framework and Employee Selection

Benefits of using KESHAVA Framework in VUCA World

It is important to raise the bar of performance expectations so that people stretch themselves for superior performance. To raise the bar, a pre-condition is motivated and engaged employee who is willing to learn from his and others mistakes. KESAVA framework will help organization select the candidates who are willing to work hard and learn continuously. To derive the full benefit, all the seven components of the K-framework need to be assessed (see Figure 2). All the seven components are essential in the employee to win in VUCA world. If the employees cannot win in VUCA world, the chance that organization can win is

remote. Based on the K-framework, the selection team can identify KESAVA Positive (K-positive) candidates. K-positive candidates are the ones who possess all qualities in sufficient amount as per the organization's requirements and standards for the specific job. KESAVA Negative (K-negative) are the candidates with one or more qualities missing as per the K-framework (see Appendix 2). K-positive candidates can be selected and oriented well to face the VUCA environment and adapt themselves fast. K-negative candidates should ideally be rejected as their ability to adapt to the VUCA environment will be low or may take very long time to adapt than K-positive candidates. When

organizations are looking for effective and efficient hiring practices which are more standardized across all branches and units of the organization, K-framework can be a facilitating tool which can be easily adopted by all organizations.

Providing exemplary service to customers is the primary goal of any organization, which cannot be achieved in the absence of K- positive employees. Over focus on job-person fit may be insufficient when every employee is expected to be fully engaged for customer oriented service delivery and market oriented business management. Company-person fit will be as critical as job-person fit in VUCA world. Holistic selection framework, like K-framework, will help in reducing avoidable attrition by ensuring better company-person fit in addition to job-person fit. K-positive employees who will be company fit and job fit will be the reliable and strong pillars for shaping a VUCA world ready organization. K-framework can also be used as a template to reinforce the qualities in the selected K-positive employees during induction and refresher training programs.

Managerial Implications

Organizations in VUCA world need to be agile and innovative, constantly redefining the way they do business in order to maximize stakeholder value and build a profitable and sustainable business model. Winning in VUCA world requires that organizations practise the following critical aspects and values - agility, foresight, consumer centricity, think globally and act locally; and 'attracting great talent' (Manwani, 2013). There is a link between enlightened corporate behavior and performance. The most sustainably successful businesses are also the most moral - not through formal programs like corporate social responsibility (CSR), but through "sustainable values" (as opposed to "situational values"). They had an orientation toward sustaining human relationships built into their day-to-day practices and behaviors by each of their employees' right from the CEO to entry level trainee employees. Customers will receive good service from employees if the employees are selected, treated and supported well at all times by the top level management. Employees who are in the interface between the company and the customers are in the value zone and each one of them is capable of creating more value or less value for customers. Under Employees First, Customers Second (EFCS) management approach, the whole

intent of 'Employees First' is to do everything top level management can to enable value zone employees to create the most possible value for customers and other stakeholders (Nayar, 2010).

Employees having good character and competence in equal measure are most suited for the VUCA world. Leaders of the firms in VUCA world should ensure that the employees go beyond merely serving customers to create unique, delightful, experiences; to honourably represent their company and nurture its brand, not only when they are on the job, but whenever they publicly express themselves in tweets, blog posts, emails, or any other interaction; and to be creative with fewer resources and resilient in the face of unimaginable uncertainty. These contributions will not come as the result of threats or even bonuses. Instead, leaders must inspire employees with a sense of deep purpose and shared values after selecting the right employees (K-positive) who can get sufficiently inspired to honourably represent their company and nurture its brand in every interaction with all stakeholders (Seidman, 2012). The service climate in an organization is a critical aspect to ensure internal and external customer satisfaction. Shaping a positive service climate is a joint responsibility of employers and employees. The relation between the service climate and customer loyalty seems to be reciprocal, since it is found that the greater is the service climate, the higher is the customer loyalty, (partially mediated by performance) and the higher is the customer loyalty, the greater is the service climate (Schneider et al., 1998).

Developing a team of K-positive employees and through that, a positive service climate, becomes the first task for business leaders in a VUCA world. A community of K-positive employees who innately understand the organization's purpose and will make practical and principled, self-directed decisions day-to-day that put the customer first. According to Sanjiv Mehta, MD of HUL, the pace of change in India is ferocious and disruptive. The employees have to anticipate and lead change to achieve the full potential which the company is capable of achieving (Mukherjee and Singh, 2014). Developing high performance culture in the organization to face VUCA world is difficult without K-positive employees. Delivering and sustaining service excellence can be essentially the key competitive advantage for many organizations (Albrecht and Zemke, 2001). A compelling issue confronting service organizations

is improving customer's service experiences by identifying and maintaining positive service climates (Schneider and Bowen, 2009). Organizations have to create and maintain a positive service climate so that employees deliver excellent service (Schneider, 1990; Schneider and Bowen, 1995). One of the most elusive challenges for leaders revolves around getting people to be enthused and energised on a continuous basis. Organizations have to focus on talent management and development of the leadership pipelines, building HR systems and processes that can enable the organization to respond with alacrity to the turbulent business environment and creating employee engagement systems that foster trust and collaboration. Careful selection of employees with the help of holistic framework can reduce errors in talent selection which can be very costly for any organization in VUCA world.

The critical aspect to be kept in mind by the selection team is that, wrong employees can demotivate others and they cannot be trained or training is not a solution for wrong selection at the first place. They can be a liability which cannot be managed or disowned easily. Wrong employees can create a negative service climate in the organization as they are already a misfit either to job or organization which is constantly learning to adapt to a VUCA world and excel in service delivery. Using holistic frameworks like K-framework can help in eliminating or minimizing wrong selection by the selection team.

The main advantage of K-framework is its simplicity. It is a simple framework which can be easily adopted by all organizations whether big or small. The simplicity will ensure its fast adoption by all members in the selection team irrespective of their domain expertise (especially when non-HR members are in the selection team). K-framework will help select the right people who are good at adapting to any environment. Adapting in a VUCA world is impossible without unlearning and relearning on an ongoing basis. Adopting a holistic framework, like the K-framework, for employee selection will ensure the competitive strength needed by the organization. K-framework will help organizations to select the right talent which is the first step to develop and manage talent for adapting and excelling in the VUCA world.

Future Direction

Though K-framework is a holistic framework which can be easily adopted by practitioners in all organizations, there is

a need to check its usefulness in meeting all the challenges of VUCA world. Future research can explore the importance of each element in the framework and prioritize them. The identification of any major element not incorporated in the KESHAVA framework is an important area of future research. The right values to be inculcated in service employees can be investigated empirically by conducting a study among service managers and academicians from India.

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APPENDIX

Appendix 1: The attributes of reputation on which companies are evaluated in determining the industry rankings (Haygroup, 2014).

1. Ability to attract and retain talented people
2. Quality of management
3. Social responsibility to the community and the environment
4. Innovativeness
5. Quality of products or services
6. Wise use of corporate assets
7. Financial soundness
8. Long-term investment value
9. Effectiveness in doing business globally

Raters are asked to evaluate each eligible company on each attribute by assigning a score from zero ('Poor') to ten ('Excellent'). For the purposes of the industry rankings, a company's overall score is determined through a simple average of the individual attribute scores. Companies who rank in the top half of their industry are defined as **"most admired"** within their industry. The attributes were developed prior to the inception of the Most Admired Companies rankings in the mid-1980s through a series of interviews with executives and industry analysts to determine the **qualities** that make a company **worthy of admiration**.

Appendix 2: Candidate Evaluation Sheet for Employee Selection (based on KESHAVA Framework)

Candidate Evaluation Sheet for VUCA Fit Employee

The total score of a candidate (KESHAVA Score) should not exceed 70 as each parameter is evaluated out of a maximum score of 10.

Parameter S No.	K Knowledge (Max. 10)	E EI (Max. 10)	S Skill (Max. 10)	H Hardworking (Max. 10)	A Attitude (Max. 10)	V Values (Max. 10)	A Ambition (Max. 10)	K- +ve (Y/N)	Total Score (Max. 70)
Candidate 1									
Candidate 2									
Candidate 3									
-									
-									
-									

- The candidate is **K-positive** if all seven aspects are present (any score between 1 to 10) in him/her.
- The candidate is **K-negative** if one or more of the seven aspects are absent (0 score) in him/her.

The exact questions/statements can be decided by the respective HR team conducting the selection process. The cutoff score can also be decided by the HR team. In general, all seven parameters **individually** need to be above zero.

Qualifiers like: 0-10(Poor); 11-25(Average); 26-45(Good); 46-55(Excellent); Above 55(Outstanding) can also be used for the total score achieved by the candidate out of 70 marks.

Moderating effects of CRM performance: Relationship Inertia and Switching Cost in Banking Industry

Arup Kumar Baksi

Abstract

Since the adoption and implementation of Customer relationship management (CRM), service firms are engaged in evaluating the performance output of the same to seek justification behind the enormous cost involved in its implementation and structural and behavioural modification that was done at the firm's architectural level. For the academicians, researchers, and business analysts the impact of CRM performance on customer satisfaction level has emerged as an area of profound interest while there has been adequate literature support for satisfaction-retention link. However, impact of switching cost and relationship inertia on CRM performance-customer satisfaction-retention link in the context of Indian banking industry remained inconclusive. The purpose of this paper is to propose and justify a customer satisfaction - customer retention model in a CRM ecosystem with an insight into the probable impact of moderating variables namely relationship inertia and switching cost. The study was carried out on the State Bank of India involving certain specific branches in southern part of West Bengal, India. Multivariate statistical procedures were applied which included a double regression analysis and exploratory and confirmatory factor analysis followed by structural equation modeling to justify the factor constructs of the proposed model. The study revealed a positive link between CRM performance, customer satisfaction and retention with relationship inertia and perceived switching costs significantly influencing the link between the three major variables.

Key words: Customer relationship management, satisfaction, retention, inertia, switching cost, performance, bank



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In the era of relationship marketing, retention of customers has been factor critical for the service industries. Researchers have found empirical evidence that customer satisfaction is an important determinant to customer retention (Oliver, 1980; Fornell, 1992; Anderson and Sullivan, 1993, Terblanche, 2006, Hsu, 2008). Researchers found that when customers were involved in satisfied transaction habit for a prolonged period with a specific firm, they would like to continue with the momentum of relationship (Ouellette and Wood, 1998) and become reluctant to find an alternative (Colgate and Danaher, 2000). This phenomenon was subsequently nomenclated as relationship inertia. Studies were also made to explain the defection behaviour of the customers on the basis of perceived switching costs. The switching costs were estimated not only on the basis of pure monetary value

involved in the switching process from one service provider to another but also on the basis of the effort and time invested to search and access alternative service providers. For many a service provider this can be an important strategic paradigm whereby they can elevate the switching costs for their existing customers and create a high exit barrier for the same. Customer relationship management (CRM), as a business philosophy, has been one of the applied formats of relationship marketing which marked the end of transaction-based marketing dominated by marketing mix elements. CRM, as a business process focused on the management of maintaining relationship with the customer on the basis of symbiotic sharing of value and profit. The satisfaction-retention link has an obvious antecedent effect in the form of 'perceived service quality' and also has a desired output namely increase in profitability/market share. Studies conducted by Vlèková and Bednaříková (2007) suggested that customer retention over their lifetime will significantly contribute to enhance company's profitability. The service organizations, in particular, delved deep into the calculations of Customer Life-Time Value (CLTV) to identify the most valued customers on the basis of their net-worth to the company. CRM revolves around the management of Customer Life Cycle (Sheth, Parvatiyar, and Shainesh, 2001). Bateman and Snell (2001) observed that CRM is a business process which results in optimized profitability and revenue generation, while achieving customer satisfaction.

For the service providers CRM became the most sought after strategy as it focused on retention rather than acquisition. CRM performance based on the functionalities of CRM process elements and CRM dimensions is involved in enhancing the level of perceived service quality which has been recognised as a critical prerequisite and determinant of competitiveness for establishing and sustaining long-term satisfying relationships with customers (Wang and Wang, 2006).

The banking industry in India adopted CRM as a business process and tried to redefine the customer satisfaction-retention-loyalty sequence in the light of inertia and switching costs, where inertia has been considered as a potent habit of consumption and brand association while switching costs has been conceptualized as a barrier to defect which allowed the banks to assort and customize products/services for the customers.

This study concentrates on finding empirical evidence of the moderating effects of relationship inertia and switching costs on CRM performance-customer satisfaction-customer relationship link.

Review of literature

CRM has been conceptualized as a systematic strategic process of managing initiation of customer relationship through customer acquisition process, maintenance of relationship on the basis of symbiotic sharing of value and profit, and termination of a potentially devalued relationship and as a information system that tracks customers' interaction with their firms and enable the firms to address issues that are potentially inhibitors or enhancers to profitability (Yueh et al., 2010; Aihie and Bennani, 2007; Nguyen, 2007; Hendricks et al., 2007). CRM performance aims to develop a sustainable competitive advantage by delivering superior customer value (Ahmad and Hashim, 2010; Sadeghi and Farokhian, 2010) and facilitates in developing relationship with assorted and differentiated customers via interdependent collaboration with those of highest perceived value to the company (Lowe, 2008; Sadeghi and Farokhian, 2010). Greenberg (2004) introduced the metrics model comprising three key elements to measure CRM performance namely customer metrics, performance metrics and diagnostic metrics. Hyung Su and Young Gul (2007) mentioned the score-card approach while Hughes (2009) utilized the Balanced Score Card (BSC) and six sigma concept to evaluate the CRM performance. Academicians and researchers, over the years, have focused on developing CRM measurement frameworks (Jain et al., 2003, Lindgreen et al., 2006). While some research has focused more on IT-related factors (Avlonitis and Panagopoulos, 2005; Roh, Ahn, and Han, 2005), others have emphasized organizational factors like human resources, organizational structure, and reward systems (Rigby et al., 2002), or business process-related factors (Campbell, 2003; Payne and Frow, 2004). Studies were also made to link CRM components and their performance output, namely, link between customer satisfaction and business performance (Kamakura et al., 2002), the link between customer loyalty and firm profitability (Reinartz and Kumar, 2000), heterogeneity in customer profitability as an output to CRM deployment (Niraj, Gupta, and Narasimhan, 2001), and exhibition of customer loyalty as a behavioural function to CRM adoption (Verhoef, 2003). Literatures revealed a few take on CRM performance measurement based on CRM process and dimensionality

(Lindgreen et al., 2006; Zablah, Bellenger, and Johnston, 2004). Lindgreen et al. (2006) proposed a CRM assessment tool comprising three categorical elements namely strategic elements (customer and brand strategy), infrastructural elements (culture and people) and process elements (relationship-management process). While researchers continued to focus on tangible and quantitative key performance indicators (KPI) such as revenue generated, customer acquisition, retention and defection rates, time to execute services including service recovery process, cost optimization etc., to explain the success/failure of a CRM system, Jain et al. (2003) explored into the behavioural dimensions of CRM that considered the 'people' element as a pivotal factor. The behavioural dimensions thus identified were attitude to serve, quality perceptions, understanding the expectations of customers, reaction time, situation handling capability etc. Abdullateef, Mokhtar, and Yousoff (2010) concentrated on four dimensions of CRM namely customer orientation, CRM organization, knowledge management and CRM technology to identify caller satisfaction in contact centers. Ghafari, Karjalian, and Mashayekhnia (2011) identified five dimensions of CRM namely information sharing, customer involvement, long-term partnership, joint problem solving and technology-based CRM to explore a possible linkage with innovation capabilities of a bank. Successful implementation of CRM requires synergistic synchronization between four identified

dimensions namely focusing on key customers, organizing around CRM, managing knowledge, and incorporating CRM-based technology (Yim, Anderson, and Swaminathan, 2004). The dimensions of CRM are supposed to influence the CRM process which focuses on value creation resulting in manifested behavioural intention of the customers. Other researchers have also explored CRM process frameworks from diversified point of views namely service profit chain (Heskett et al., 1994), return on quality (Rust, Zahorik, and Keiningham, 1995), customer asset management (Berger et al., 2002), and customer equity (Blattberg, Getz, and Thomas, 2001). Review of literature also revealed that there are different methods and categorizations of CRM performance namely financial versus non-financial, single-dimensional versus multi-criteria, tangible versus intangible (Payne and Frow, 2005).

Community and retail banking system has evolved as a major domain of CRM application. As banks automated back-office functions with mainframes, and the number of products and services, particularly related to cross-selling and up-selling activities, grew, they found it increasingly necessary to introduce and replace its branch-based filing cards with a Central Information file (CIF). Panda and Parida (2005) have identified the key drivers of CRM in retail banking which has been categorized under two factors: (i) Internal factors (ii) External factors. The drivers are presented in Table-1 below:

Table 1: CRM drivers for banks

CRM drivers for banks	
Internal factors	External factors
1. Improving customer satisfaction and cross-selling/up-selling initiatives	1. Reduced competitive barriers
2. Increasing share of customer spend	2. Reduced scope for differentiation
3. Operational performance	3. Customer demand
4. Competitive pressure	4. Relationship banking
5. Realization of Customer Lifetime value	5. Increased risk and their intermediation
6. Multi-Channel Integration	6. Advances in technology
7. Automated Business processes	7. Affordable data-storage for the retention

Source: Baksi & Parida, SITJOM, December, 2012

The pursuance of CRM by firms, particularly in the service sector, has been strongly focused on augmentation in the perception of service quality leading to favourable behavioural intention namely customer retention, attitudinal loyalty and repatronization (Swift, 2001). Service quality has been recognised as a critical prerequisite and determinant of competitiveness for establishing and sustaining long-term satisfying relationships with customers (Wang and Wang, 2006) which inevitably reinforces the philosophy of CRM. Baksi and Parida (2012a) and Baksi and Parida (2012b) confirmed that service quality is a precursor to favourable behavioural intention (attitudinal loyalty) in CRM environment of a bank.

Customer satisfaction, reported to be a state of behavioural expression of customers as an output to perceived service quality where enhancement of satisfaction has been considered to be directly proportional to elevated perceptual level of service quality (Lin, 2007, Joewono and Kubota, 2007). Studies revealed that customer satisfaction has a positive impact on customer retention (Ranaweera and Prabhu, 2003; Tsoukatos and Rand, 2006). Increased customer satisfaction levels will lead to greater customer retention rate, which is a key determinant for customer loyalty, which may increase the expected profit (Rust and Zahorik, 1993; Anderson and Mittal, 2000).

While analysing attitudinal loyalty of customers who are, obviously, involved in a prolonged relationship with their firms, researchers adopted the term 'inertia' as a concept to explain this unchanged bond between the customers and their firms. Huang and Yu (1999) projected inertia as a condition where repurchasing behaviour occurs as a response to situational stimulus and it reflects a non-conscious process. Relationship inertia has also been conceptualized as a habitual process (Assael, 1998; Solomon, 1994) which does not manifest emotional outburst and is predominantly convenience driven (Gounaris and Stathakopoulos, 2004; Lee and Cunningham, 2001). According to White and Yanamandram (2004), relationship inertia is a behavioural complex reflected in inert customers who avoid making new purchase decisions and price comparisons (Pitta et al., 2006) and try to maintain status quo (Ye, 2005). Colgate and Danaher (2000) observed relationship inertia as a basic human nature that confirms human habits as an auto-behavioural-tendency responding to past developments (Limayem and Hirt, 2003; Verhoef,

2003). Researchers also pointed out to the fact that past behaviour of relationship continuum might represent inertia effect (Rust et al., 2000) and customer loyalty may be an output to prolonged relationship inertia (Anderson and Srinivasan, 2003; Yanamandram and White, 2006; Weiringa and Verhoef, 2007). Although major investigations were made to justify the effect of relationship inertia on satisfied customers, Anderson and Srinivasan (2003) found that relationship inertia can be a potent inhibitor for the dissatisfied customers even and restrict them from defection.

Relationship inertia has been attributed by the researchers to switching cost as they were of the opinion that perceived switching cost is directly proportional to relationship inertia or in other words, switching cost acts as a potential inhibitor of changing service providers (Ranaweera and Prabhu, 2003; Lee et al., 2001; Jones et al., 2000; Bansal and Taylor, 1999). Switching cost has been conceptualized as the cost of changing services in terms of time, monetary value and psychological factors (Dick and Basu, 1994) and was found to be comprised of search cost and transaction cost (Eckardt, 2008). Furthermore, review of literature revealed the impact of switching costs on customer retention (Jones, Mothersbaugh and Beatty, 2000; Lee, Lee and Feick, 2001; Ranaweera and Prabhu, 2003). Study conducted by Lai, Liu and Lin (2011) showed that inertia and switching costs weaken the impact of satisfaction on customer retention in the perspective of auto liability insurance industry. Cheng, Chiu, Hu and Chang (2011), in their study explored the impact of relationship inertia as a mediator on customer satisfaction-loyalty link and observed that relationship inertia has a strong mediating effect on the link.

Research gap

Review of literature confirmed that although studies were made to identify the impact of inertia and switching costs on customer satisfaction and customer retention, there has been a dearth of research focusing the moderating effects of relationship inertia and perceived switching costs on CRM performance-customer satisfaction-customer retention link in an integrated manner in the context of banking industry, although it has been taken up discretely (Baksi and Parida, 2013). This paper, therefore, empirically explores the relationship between CRM performance, customer satisfaction and customer retention and further attempts to identify the moderating effects of relationship inertia and perceived switching costs on the relationship.

Following 'introduction' the layout of the paper follows: 'review of literature and formulation of hypothesis and model construct, methodology, data analysis and conclusion including future research and limitations.

Objective of the study

Following the review of literature and identifying the research gap within, the following research objectives were specified:

- a. to identify the possible impact of CRM performance, relationship inertia and switching cost on customer satisfaction,
- b. to assess the impact of relationship inertia and switching cost on customer retention, and
- c. to examine the impact of CRM performance on customer retention under strong influence of switching cost and relationship inertia.

Formulation of hypotheses and model construct

Apropos to the literature reviewed the following hypotheses and null hypotheses were formulated:

H₀₁: CRM performance does not have positive impact on customer satisfaction.

H₁: CRM performance has a positive impact on customer satisfaction.

H₀₂: Relationship inertia does not have positive impact on customer satisfaction.

H₂: Relationship inertia has a positive impact on customer satisfaction.

H₀₃: Switching cost does not have positive impact on customer satisfaction.

H₃: Switching cost has a positive impact on customer satisfaction.

H₀₄: Customer satisfaction does not have positive effect on customer retention.

H₄: Customer satisfaction has a positive effect on customer retention.

H₀₅: Higher degree of relationship inertia will not ensure superior level of customer retention.

H₅: Higher degree of relationship inertia will ensure superior level of customer retention.

H₀₆: Higher degree of switching costs will not ensure higher level of customer retention.

H₆: Higher degree of switching costs will ensure higher level of customer retention.

While studying the moderating effect of relationship inertia on customer satisfaction-retention link, Anderson and Srinivasan (2003) found that customers with higher level of relationship inertia had lesser impact of satisfaction on loyalty. In a similar kind of study conducted on auto-liability insurance services, Lai, Liu, and Lin (2011) made the same observations. It seems that customers with higher level of relationship inertia are reluctant to evaluate and adopt alternative service providers even in case of dissatisfaction. But, literature did not reveal any comprehensive study involving moderating effect of relationship inertia on CRM performance-satisfaction-retention link, although CRM performance happens to have a positive effect on service quality, an antecedent to customer satisfaction-customer retention link. Hence we hypothesized that:

H₀₇: Higher degree of relationship inertia will not reduce impact of CRM performance on customer satisfaction.

H₇: Higher degree of relationship inertia will reduce impact of CRM performance on customer satisfaction.

H₀₈: Higher level of perceived switching costs will not reduce impact of CRM performance on customer satisfaction.

H₈: Higher level of perceived switching costs will reduce impact of CRM performance on customer satisfaction.

H₀₉: Higher level of relationship inertia will not decrease the impact of customer satisfaction on customer retention.

H₉: Higher level of relationship inertia decreases the impact of customer satisfaction on customer retention.

H₀₁₀: Higher level of perceived switching costs will not decrease the impact of customer satisfaction on customer retention.

H₁₀: Higher level of perceived switching costs decreases the impact of customer satisfaction on customer retention.

Jones et al. (2000) observed that dissatisfied customers are less likely to stay with their service providers if perceived switching costs are low and vice versa. Empirical evidences revealed that the relationship between customer satisfaction and customer retention is weak: as switching costs increases, sensitivity of customers to satisfaction decreases (Hauser, Simester, and Wernerfelt, 1994; Lee et al., 2000). Literature showed dearth in study involving CRM performance-customer satisfaction-retention link under moderating

effects of perceived switching costs, although evidences revealed that elevated switching costs will pacify the link between CRM performance, customer satisfaction and customer retention. Barnes et al. (2004) talked of a behavioural lock-in effect whereby customers with high perceived switching costs willingly fall into an inertia-trap. Thus high switching costs elevate exit barriers for customers and reduces the effect of CRM performance on customer satisfaction and customer retention relationship.

Therefore it was hypothesized that:

H_{011} : With the increase in perceived switching costs, the moderating effect of inertia on the relationship between CRM performance and customer satisfaction will not strengthen.

H_{11} : With the increase in perceived switching costs, the moderating effect of inertia on the relationship between CRM performance and customer satisfaction strengthens.

H_{012} : With the increase in perceived switching costs, the moderating effect of inertia on the relationship between customer satisfaction and customer retention will not strengthen.

H_{12} : With the increase in perceived switching costs, the moderating effect of inertia on the relationship between customer satisfaction and customer retention strengthens.

Based on the literature reviewed and hypotheses framed, the following model framework was proposed (Fig.1):

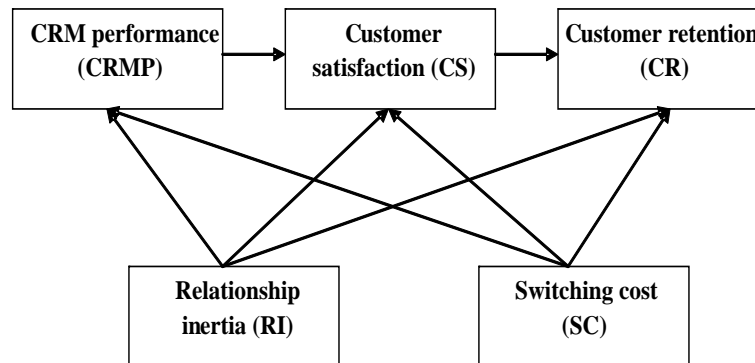


Fig.1: Proposed model framework (own construction)

Methodology

The objectives of the study were (a) to explore the relationship between CRM performance-customer satisfaction-customer retention (b) to assess the moderating effects of relationship inertia and perceived switching costs on CRM performance-customer satisfaction-customer retention link and (c) to test the proposed model framework (Fig.1) involving the variables under study using structural equation modeling. The study was carried out in the banking sector involving the largest public sector bank of India namely State Bank of India (SBI) across 5 cities in West Bengal (Asansol, Durgapur, Raniganj, Andal and Bolpur) involving 14 branches. The study was comprised of two phases. Phase-I involved a pilot study to refine the test

instrument with rectification of question ambiguity, refinement of research protocol and confirmation of scale reliability were given special emphasis (Teijlingen and Hundley, 2001). FGI was administered. Cronbach's α coefficient (>0.7) established scale reliability (Nunnally and Bernstein, 1994). The structured questionnaire thus obtained after refinement contained four sections. Section-I asked the respondents (customers) about their perception of CRM performance as of their bank (SBI), section-II was intended to generate response from the respondents with regard to their level of satisfaction with their bank, section-III was designed to understand the degree to which SBI was successful to retain their customers and the willingness of the customers to stay associate with their bank and section-

IV focused on demographic data of the respondents. The second phase of the cross-sectional study was conducted by using the structured questionnaire. Systematic simple random sampling technique was administered as every fifth customer coming out of the bank premise was requested to fill-up the questionnaire. A total number of 2000 questionnaires was used which generated 1301 usable responses with a response rate of 65.05% (approximately).

Factor constructs measurement

To develop a measure for CRM performance three CRM process elements namely CRM initiation, CRM maintenance, and CRM termination (Reinartz, Krafft, and Hoyer, 2004) and four CRM dimensions namely customer orientation, CRM organization, knowledge management, and CRM technology (Abdullateef, Mokhtar and Yousoff, 2010) were identified for the study. The CRM performance items

thus obtained were subsequently modified to suit the study. The customer satisfaction items were an adaptation from Hellier et al. (2003) which emphasized the service provider's capability to meet the expectation and perception of customers adequately. The customer retention items were based on Morgan and Hunt (1994). The items that measured the relationship inertia were adopted from Cheng, Chiu, Hu, and Chang (2011), Lai, Liu and Lin (2011), Huang and Yu (1994) and Anderson and Srinivasan (2003). To measure the perceived switching costs, we adopted the items from Chen and Hitt (2002) and Jones et al. (2000). A 7-point Likert scale (Alkibisi and Lind, 2011) was used to generate response.

Data analysis and interpretation

The demographic data collected from the respondents were presented in Table-2 :

Table-2: Demographic data of the respondents

Demographic Variables	Factors	Frequency	%
Gender	Male	851	65.46%
	Female	450	34.54%
Age	≤21 years	18	1.38
	22-32 years	503	38.69%
	33-43 years	542	41.69%
	44-54 years	201	15.46%
	≥55 years	37	2.78%
Income	≤Rs. 14999.00	69	5.30%
	Rs. 15000-Rs. 24999.00	902	69.38%
	Rs. 25000-Rs. 44999.00	277	21.30%
	≥Rs. 45000.00	53	4.02%
Occupation	Service [govt./prv]	781	60.07%
	Self employed	401	30.84%
	Professionals	68	5.30%
	Student	29	2.23%
	Housewives	22	1.56%
Educational qualification	High school	14	1.07%
	Graduate	1011	77.76%
	Postgraduate	267	20.53%
	Doctorate & others (CA, fellow etc)	11	0.64%

Bivariate correlations were obtained to assess the relationship between the variables. The results were displayed in Table-3. Correlation results revealed a positive and significant relationship between the variables.

Table-3: Bivariate correlation between the variables

Variables	CRM performance	Customer satisfaction	Customer Retention	Relationship Inertia	Switching cost
CRM performance	1				
Customer satisfaction	0.468**	1			
Customer Retention	0.219**	0.327**	1		
Relationship Inertia	0.109*	0.121*	0.176**	1	
Switching cost	0.227**	0.134**	0.119*	0.339**	1

**Correlation significant at 0.01 level (2-tailed), *Correlation significant at 0.05 level (2-tailed),

Exploratory factor analysis (EFA) was employed using principal axis factoring procedure with orthogonal rotation through VARIMAX process with an objective to assess the reliability and validity of all five factor constructs (Table-4). The Cronbach's Coefficient alpha was found significant enough. The KMO measure of sample adequacy (0.834) indicated a high-shared variance and a relatively low

uniqueness in variance (Kaiser and Cerny, 1979). Barlett's sphericity test (Chi-square=578.2312, df=98, p<0.001) indicated that the distribution is ellipsoid and amenable to data reduction (Cooper and Schindler, 1998).

Items with very low factor loadings/cross loadings (<0.500) and poor reliability (Cronbach's' alpha) were discarded. Thus CRM performance items were reduced from 58 to 34.

Table-4: Measurement of reliability and validity of the variables

Items	Factor loadings	t-value	Cronbach's α	Average variance extracted
CRM performance				
SBI has a well documented system to acquire new customer (CRMINI1)	0.871	-	0.901	0.789
SBI offers customized differentiated products to prospects (CRMINI2)	0.874	27.875	0.901	0.789
SBI communicates with prospects via assorted media channels (CRMINI3)	0.837	24.356	0.901	0.789
SBI maintains a system to interact with defected customers (CRMINI4)	0.845	26.332	0.901	0.789
SBI maintains a continuous relationship with its existing customers (CRMMAIN1)	0.882	28.319	0.901	0.789
SBI updates its customers about new products/services (CRMMAIN2)	0.817	22.764	0.901	0.789
SBI assists its customers to upgrade them to an enhanced level of services (CRMMAIN3)	0.861	26.731	0.901	0.789
SBI offers customized incentives for valued customers (CRMMAIN4)	0.812	22.098	0.901	0.789
SBI deals with customer complaints and problems promptly and efficiently (CRMMAIN5)	0.823	23.009	0.901	0.789
SBI uses satisfied customers as advocates (CRMMAIN6)	0.798	22.432	0.901	0.789
SBI passively dissociates itself from de-valued customers (CRMMAIN7)	0.791	22.216	0.901	0.789

SBI is committed to meeting customer's needs and expectations (CO1)	0.801	22.981	0.901	0.789
SBI has installed system to update customer database on a regular basis (CO2)	0.789	22.117	0.901	0.789
SBI has well documented system to disseminate customer information (CO3)	0.842	26.118	0.901	0.789
SBI maintains customer centric performance standards at all customer touch-points (CRMORG1)	0.837	26.097	0.901	0.789
SBI has resources and expertise to succeed in CRM process (CRMORG2)	0.866	26.912	0.901	0.789
SBI's employees are knowledgeable enough to deal with contingent situation (KM1)	0.818	22.818	0.901	0.789
SBI shares customer information across all points of contact through MCI (KM2)	0.826	23.001	0.901	0.789
SBI maintains that mining data intelligently is a source of competitive advantage (KM3)	0.776	22.009	0.901	0.789
SBI banks on updated CBS to establish long term customer relationships (CRMTECH1)	0.829	23.327	0.901	0.789
SBI uses IT to facilitate the management of customer relationships (CRMTECH2)	0.876	28.098	0.901	0.789
SBI uses CRM technology to create customized offerings to customers (CRMTECH3)	0.885	29.235	0.901	0.789
SBI provides customer information at every technology interface (CRMTECH4)	0.879	28.106	0.901	0.789
Customer satisfaction				
As a customer of SBI, I am satisfied with the services provided by SBI (CS1)	0.913	-	0.921	0.731
As a customer of SBI, I would positively recommend SBI to new prospects (CS2)	0.899	29.789	0.921	0.731
As a customer, I feel good about my decision to bank with SBI (CS3)	0.908	33.016	0.921	0.731
Customer retention				
I intend to remain associated with SBI for the time being (CR1)	0.887	-	0.889	0.774
I intend to continue my relationship with SBI as a customer for the next five years (CR2)	0.907	32.401	0.889	0.774
Relationship inertia				
Unless other bank/s provide me with some distinct advantages, I am habituated in getting services from SBI (RI1)	0.817	-	0.907	0.849
Unless I am extremely dissatisfied with SBI, switching to an alternative bank will be a bother (RI2)	0.798	27.094	0.907	0.849
Unless I am extremely dissatisfied with SBI, switching to an alternative bank will be inconvenient for me (RI2)	0.812	28.643	0.907	0.849
Switching costs				
For me the costs involved in searching, investing time and money and accessing an alternative bank other than SBI is high (SC1)	0.847	-	0.903	0.699
It would take a lot of effort to change my bank (SBI) (SC2)	0.869	28.432	0.903	0.699
It would be a hassle to change my existing bank (SBI) (SC3)	0.891	30.712	0.903	0.699
KMO		.834		
Barlett's sphericity test	Chi-square	578.2312		
	df	98		
	Sig.	.000		

Multiple regression analysis and hierarchical regression analysis were deployed by considering the average (mean) values of the items for the factor constructs to test the hypotheses framed. A double regression was applied considering customer satisfaction (CS) and customer retention (CR) as the dependent variables. For providing empirical evidence to our hypotheses, we proposed an ordinary least square (OLS) regression for dependent variables CS and CR. The following models were constructed:

Regression equation-1

$$CS = \beta_0 + \beta_1 * CRMP + \beta_2 * RI + \beta_3 * SC + \beta_4 * CRMP * RI + \beta_5 * CRMP * SC + \beta_6 * CRMP * RI * SC + \epsilon_i$$

where, CS represented customer satisfaction, CRMP represented CRM performance, RI represented relationship inertia and SC represented switching cost. CRMP*RI and CRMP*SC represented binary interaction between CRM performance and inertia and CRM performance and switching cost respectively. CRMP*RI*SC represented the ternary interaction between CRM performance, inertia, and switching cost.

Regression equation-2

$$CR = \beta_0 + \beta_1 * CS + \beta_2 * RI + \beta_3 * SC + \beta_4 * CS * RI + \beta_5 * CS * SC + \beta_6 * CS * RI * SC + \epsilon_i$$

where, CR represented customer retention, CS represented customer satisfaction, RI represented inertia and SC represented switching cost. CS*I and CS*SC represented binary interaction between customer satisfaction and inertia and customer satisfaction and switching cost respectively. CS*I*SC represented the ternary interaction between customer satisfaction, inertia, and switching cost.

The regression models were displayed in Table-5 (for equation-1) and Table-6 (for equation-2). For each equation, four regression models were established. Model 1 depicted

the direct effect of CRM performance, customer satisfaction, customer retention inertia, and switching costs. Model 2 and 3 revealed the binary interaction terms and Model 4 represented the ternary interaction. Standardization was applied to avoid interference with regression coefficients arising out of Multicollinearity between interaction variables (Irwin and McClellan, 2001; Aiken and West, 1991). The VIF (variance inflation factor) corresponding to each independent variable is less than 5, indicating that VIF is well within acceptable limit of 10 (Ranaweera and Neely, 2003). Table-4 revealed that Model-1 provided support for H_1 , H_2 , and H_3 , as CRM performance was found to have a positive and significant effect on customer satisfaction ($\beta = 0.439^{**}$, $p < 0.01$), relationship inertia exhibited significant and positive impact on customer satisfaction ($\beta = 0.265^{**}$, $p < 0.01$), perceived switching costs showed significant and positive relationship with customer satisfaction ($\beta = 0.209^{**}$, $p < 0.01$). Results of Model-2 supported H_7 . The binary interaction between CRM performance and inertia indicated that the relationship between CRM performance and customer satisfaction depends on the level of inertia ($\beta = -0.301^{**}$, $p < 0.01$). The negative interaction confirmed our prediction that with the increase in relationship inertia the impact of CRM performance on customer satisfaction will decrease indicating a habitual-trap-of-consumption for customers. Model-3 supported H_8 . It revealed that the binary interaction between CRM performance and perceived switching costs indicated that the relationship between CRM performance and customer satisfaction depends on the level of perceived switching costs ($\beta = -0.151^{**}$, $p < 0.01$). The negative interaction confirmed our prediction that with the increase in perceived switching costs, the impact of CRM performance on customer satisfaction will decrease. Model-4 represented the ternary interaction and revealed that as perceived switching costs increases the negative mediating effect ($\beta = -0.178^{**}$, $p < 0.01$) of relationship inertia on CRM performance and customer satisfaction strengthens, thereby lending support to H_{11} .

Table-5:Regression models testing the interaction effects (equation-1)

Independent Variables	Dependent variable: Customer satisfaction				
	Model-1 β (t value)	Model-2 β (t value)	Model-3 β (t value)	Model-4 β (t value)	VIF
CRM performance (CRMP)	.439**				2.791
Relationship inertia (I)	.265**				2.216
Perceived switching costs (SC)	.209**				3.019
Binary interaction effects					
CRMP*I		-.301**			2.011
CRMP*SC			-.151**		2.521
Ternary interaction effects					
CRMP*I*SC				-.178**	1.869
Adjusted R ²		.482	.493	.501	.516
F-value		197.36**	142.29**	119.17**	97.09**

Table-6 revealed that Model-1 provided support for H_4 , H_5 , and H_6 as customer satisfaction displayed a positive and significant effect on customer retention ($\beta = 0.421^{**}$, $p < 0.01$), relationship inertia exhibited significant and positive impact on customer retention ($\beta = 0.241^{**}$, $p < 0.01$), perceived switching costs showed significant and positive relationship with customer retention ($\beta = 0.189^{**}$, $p < 0.01$). Results of Model-2 supported H_7 . The binary interaction between customer satisfaction and inertia indicated that the relationship between customer satisfaction and customer retention depends on the level of inertia ($\beta = -0.288^{**}$, $p < 0.01$). The negative interaction confirmed our prediction that with the increase in relationship inertia the impact of customer satisfaction on customer retention will decrease.

Model-3 supported H_{10} . It revealed that the binary interaction between customer satisfaction and perceived switching costs indicated that the relationship between customer satisfaction and customer retention depends on the level of perceived switching costs ($\beta = -0.176^{**}$, $p < 0.01$). The negative interaction revealed our prediction that with the increase in perceived switching costs, the impact of customer satisfaction on customer retention will decrease. Model-4 represented the ternary interaction and supported H_{12} and revealed that as perceived switching costs increases the negative mediating effect ($\beta = -0.143^{**}$, $p < 0.01$) of relationship inertia on customer satisfaction and customer retention strengthens.

Table-6: Regression models testing the interaction effects (equation-2)

Independent Variables	Dependent variable: Customer retention				
	Model-1 β (t value)	Model-2 β (t value)	Model-3 β (t value)	Model-4 β (t value)	VIF
Customer satisfaction	.421**				1.619
Relationship inertia (I)	.241**				1.988
Perceived switching costs (SC)	.189**				2.179
Binary interaction effects					
CS*I		-.288**			1.697
CS*SC			-.176**		2.018
Ternary interaction effects					
CS*I*SC				-.143**	2.118
Adjusted R ²		.448	.462	.493	.501
F-value		142.11**	121.13**	109.60**	89.62**

The summarized results of the hypotheses testing have been presented in Table-7:

**Table-7: Summarized results of hypotheses testing -
Multiple regression analysis & Hierarchical regression analysis**

Sl. No.	Hypothesis	Description of Hypothesis	Result
1	H_1	<i>CRM performance has a positive impact on customer satisfaction</i>	accepted
2	H_2	<i>Relationship inertia has a positive impact on customer satisfaction</i>	accepted
3	H_3	<i>Switching cost has a positive impact on customer satisfaction</i>	accepted
4	H_4	<i>Customer satisfaction has a positive effect on customer retention</i>	accepted
5	H_5	<i>Higher degree of relationship inertia will ensure superior level of customer retention</i>	accepted
6	H_6	<i>Higher degree of switching costs will ensure higher level of customer retention</i>	accepted
7	H_7	<i>Higher degree of relationship inertia will reduce impact of CRM performance on customer satisfaction</i>	accepted
8	H_8	<i>Higher level of perceived switching costs will reduce impact of CRM performance on customer satisfaction</i>	accepted
9	H_9	<i>Higher level of relationship inertia decreases the impact of customer satisfaction on customer retention</i>	accepted
10	H_{10}	<i>Higher level of perceived switching costs decreases the impact of customer satisfaction on customer retention</i>	accepted
11	H_{11}	<i>With the increase in perceived switching costs, the moderating effect of inertia on the relationship between CRM performance and customer satisfaction strengthens</i>	accepted
12	H_{12}	<i>With the increase in perceived switching costs, the moderating effect of inertia on the relationship between customer satisfaction and customer retention strengthens</i>	accepted

Confirmatory factor analysis (CFA) was deployed to understand the convergence, discriminant validity, and dimensionality for each construct to determine whether all the 34 items (Table-4) measure the construct adequately as they had been assigned for. LISREL 8.80 programme was used to conduct the Structural Equation Modeling (SEM) and Maximum Likelihood Estimation (MLE) was applied to estimate the CFA models. A number of fit-statistics (Table-8) were obtained. The GFI (0.992) and AGFI (0.982) scores for all the constructs were found to be consistently >0.900 indicating that a significant proportion of the variance in

the sample variance-covariance matrix is accounted for by the model and a good fit has been achieved (Baumgartner and Homburg, 1996; Hair et al., 1998, 2006; Hulland, Chow, and Lam, 1996; Kline, 1998; Holmes-Smith, 2002; Byrne, 2001). The CFI value (0.987) for all the constructs were obtained as >0.900 which indicated an acceptable fit to the data (Bentler, 1992). The RMSEA value obtained (0.049) is < 0.08 for an adequate model fit (Hu and Bentler, 1999). The probability value of Chi-square is more than the conventional 0.05 level (P=0.20) indicating an absolute fit of the models to the data.

Table-8: Summary of fit indices

Fit indices	χ^2	df	P	GFI	AGFI	CFI	RMR	RMSEA
Values	231.09	97	0.000	0.992	0.982	0.987	0.051	0.049

Structural Equation Modeling (SEM) was used to test the relationship among the constructs. All the 18 paths drawn were found to be significant at $p < 0.05$. The research model holds well (Fig.2) as the fit-indices supported adequately the model fit to the data. The double-curved arrows indicate co-variability of the latent variables. The residual variables

(error variances) are indicated by $\epsilon_1, \epsilon_2, \epsilon_3$, etc. The regression weights are represented by λ . The co-variances are represented by β . To provide the latent factors an interpretable scale; one factor loading is fixed to 1 (Hox and Bechger).

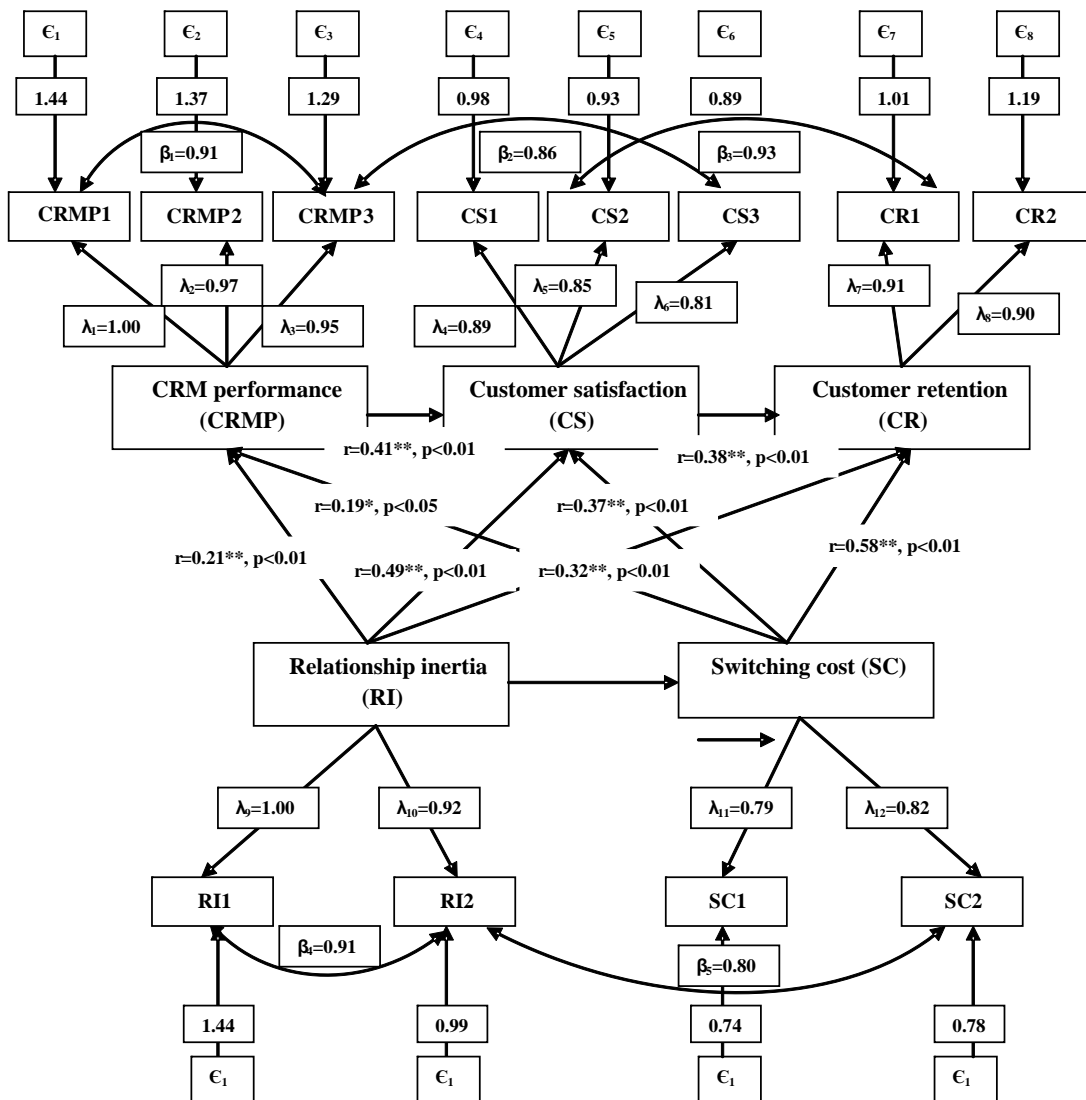


Fig.2: Structural model showing the path analysis

Conclusion

Customer satisfaction and subsequent retention of valued customers are the two pivotal strategic intents of customer relationship management (CRM) and it becomes more relevant in service industries as they are predominantly intangible and heterogeneous as a result of which perception of service quality is quite difficult.

This study empirically investigates the relational impact of CRM performance on customer satisfaction and subsequent customer retention and further attempts to investigate the moderating effects of relational inertia and perceived switching costs on the said relation in the perspective of banking industry in India whereby the largest nationalized bank, the State Bank of India, was considered as a case. The study revealed that CRM performance has a strong and positive impact on customer satisfaction. A positive relationship also existed between customer satisfaction and customer retention. Therefore, strategically it becomes significant for the bankers to maintain high level of CRM performance and thereby ensuring enhanced level of perceived service quality which is considered to be a critical element for repurchasing decisions to create a sustained base of customers (Tsoukatos and Rand, 2006).

In addition, the study explained that perceived switching costs and relationship inertia create high exit barriers for the customers and prevents them from switching to alternative service providers. The study also showed that the impact of customer satisfaction on customer retention becomes irrelevant as perceived switching cost and relationship inertia increases. The findings of the study also confirmed that higher perceived switching costs would not allow a customer to search for new alternatives and relationship inertia will create a habitual-trap for the customers to stay in a relationship with their existing firm and produce a behavioural lock-in effect. Similarly the relationship inertia strengthens CRM performance-customer satisfaction link as perceived switching costs become high.

The barriers raised by switching costs to prevent customer defection, reinforces the habitual trap or the behavioural lock-in effect produced by relationship inertia and increase the level of customer retention. Therefore the bankers must try and ensure to maintain a high level of perceived switching costs for their valued customers by practising proactive CRM and ensuring elevated level of customer satisfaction and beyond. Firms offering assorted and customized services

are more likely to ensure the habitual-trap or behavioural lock-in for the customers as their perceived switching costs are raised to a higher level (Lai, Liu, and Lin, 2011). This hinted towards regular analysis and updation of product/service portfolio offered by State Bank of India. Finally, the proposed model holds good depicting cause and effect relationship of the variables under study.

The study had geographical limitations as it has been restricted to specific places of West Bengal, which in future, can be widened to obtain a more generalized conclusion. Further extrapolations can be made by considering the impact of differentiated offerings of alternative firms at competitive price. In addition to this, specific investigation may be undertaken to investigate the exact behavioural attitude and intention of dissatisfied customers under the impact of higher perceived switching cost and relationship inertia. It would be also interesting for the researchers to study the impact of switching cost and inertia on satisfied customers facing better and technologically upgraded service offers at a elevated price. The study can be taken up for other service sectors also, particularly hospitality and tourism industry which thrives on CRM practices, customer retention and repatronization of the same. The study was cross-sectional in nature; therefore longitudinal research may be taken up also to realize the gradual changes in the perception and impact of switching costs and inertia on CRM performance-customer satisfaction-customer retention link over time.

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Structural Disparities in MSMEs— How to fill the lacuna?

C. Viswanatha Reddy

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MSME sector has become the backbone of Indian economy by providing large employment with lower capital cost, reducing regional imbalances through rural and backward industrialization, assuring equal distribution of national income and wealth. In the changing global industrial climate, the Government of united Andhra Pradesh, in line with the Central Government Policy, has placed much emphasis for the growth of MSMEs and envisaged special incentives and concessions to this sector. In order to ensure the policy implementation of the Government, the APSFC has continued to enhance its funding to this sector. The present paper analyses the flow of credit in terms of sanctions and disbursements, assistance to MSMEs, the district-wise, region-wise distribution of lending towards MSMEs in terms of number of units, amount sanctioned and disbursed, trend analysis using regression model, ANOVA: Single Factor to highlight the difference between assistance given to MSMEs and others. Lastly, few suggestions were offered for strengthening the position of MSMEs in the newly formed Andhra Pradesh.

Key Words : Micro, Small and Medium Enterprises, Sanctions, Disbursements, Bank Credit;
Lending Obstacles, Economic Growth.

JEL Classification: G21



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The Micro, Small and Medium Enterprises (MSME) sector is an important pillar of Indian economy as it contributes immensely to the growth of Indian economy with a vast network of around 30 million, creating employment for around 7 million, manufacturing more than 8,000 products, contributing about 45% to manufacturing output and about 40% of exports, directly and indirectly. MSMEs are the driving force behind a large number of innovations and they contribute to the inclusive growth. In India MSE sector attracts priority status. Considering the sector's significance, Government of India has been taking several measures to strengthen the MSME eco system (Reddy CV, 2014). MSMEs play an important role in alleviating poverty and contributing significantly towards the growth of developing economies (Agbeibor, 2006). The

Indian Economy underwent a challenging phase during the last few financial years entangled by passive domestic growth and inflationary pressures. Thus, the economic landscape created certain uncertainties and risks in the investment arena. As per the CRISIL Ratings round up report, downgrades continued to outnumber the upgrades during 2013-14 reflecting merciless pressure on credit quality of Corporate India in general. The present sluggish business environment has lowered the revenues and profitability of MSMEs. They have been affected more than large companies and have become highly vulnerable to the business cycles. MSMEs being the most important segment of economy, their underperformance affected the Credit Portfolio of the Financial Institutions /Banks (S. Mittal, 2010). The primary responsibility of promotion and development of MSMEs is of the State Governments. However, the Government of India supplements the efforts of the State Governments through various initiatives (L. Sharma, 1998).

Andhra Pradesh (United Andhra Pradesh) was one of the foremost states to have developed sector-specific policies. Natural resources, policy incentives and infrastructure in the state are favourably suited for investments in major sectors such as drugs and pharmaceuticals, biotechnology, IT and ITES, mines and minerals, textiles, leather and tourism. Forming industrial clusters and developing infrastructure have been the state's key strategy to attract investments in various industries (Biswajit Bose, 2013). The Government of Andhra Pradesh (now divided into Andhra Pradesh and Telangana), in line with the Central Government policy, has placed much emphasis for growth of MSME sector and envisaged special incentives and concessions to this sector in the Industrial Promotional Policy 2010-15. In order to meet the financial needs of MSMEs in united Andhra Pradesh, the APSFC came into existence on the 1st of November, 1956 consequent to the issue of notification by the State Government, in pursuance of the SFCs Act, 1951 – a Central Act, governing the formation and functioning of the SFCs in the different states (Himachalam D. et al., 1995). In order to ensure the policy implementation of the Government, the APSFC has continued to enhance its funding to this sector.

Review of Literature:

Micro, small and medium enterprises (MSMEs) play a significant role in job creation, poverty reduction and reducing inequality in both developed and developing

economies. MSMEs create approximately 80% of new jobs; employ about 40% of the labour force and account for more than 63% of the GDP in developing countries (M. Ayyagari, T. et al., 2005). There are over 6,000 products ranging from traditional to high-tech items, which are being manufactured by the MSMEs (S. Mittal, 2010 and L. Sharma, 1998). Worldwide, the MSMEs have been accepted as the engine of economic growth and for promoting equitable development (Nyankomo Marwa, 2014). The major advantage of the sector is its employment potential at low capital cost. The labour intensity of the MSME sector is much higher than that of the large enterprises (Manish Roy Tirkey, 2012). The MSMEs constitute over 90% of total enterprises in most of the economies and are credited with generating the highest rates of employment growth and account for a major share of industrial production and exports. SME play an important role in alleviating poverty and contribute significantly towards the growth of developing economies (Agbeibor, 2006). The State Financial Corporation's (SFCs) are playing an important role in the development of small and medium enterprises, in their respective states in tandem with the national priorities. The main objectives of SFC's are to catalyse investment, generate employment and to broaden the ownership base of MSMEs. The financial assistance includes term loan, direct subscription to equity capital. A state financial corporation operates a number of schemes of refinance and equity type assistance on behalf of IDBI and SIDBI. Besides they also have schemes for artisans and special target groups such as SC/ST, women, Ex- service men, physically handicapped etc., in tandem with the changing environment (Bendeiah Ch., et al., 2014). Absence of adequate and timely supply of bank finance, limited capital and knowledge, lack of power, low quality inputs, low return, non availability of suitable technology, low production capacity, ineffective marketing strategies are the main problems of MSMEs in India (N. Mori and E. Richard, 2012). Inadequate credit from banks is the major reasons for finance problems of Micro Enterprises. Reluctance by banks to extend credit to women, inability to provide adequate security and margin money, tight repayment schedule are the main problems being faced by this enterprises (Rao and Ganesh, 2011), (Nishanth P. and Dr Zakkariya K.A., 2014). The major reason for not seeking credit was lack of information about credit and lack of required security (Mishra and Brahme, 2011 and Rajeevan, N. and Sulphrey, M.M. 2012). Andhra Pradesh State Financial

Corporation came into being as a premier Financial Institutions on 1st November, 1956 with the avowed objectives of purveying financial assistance and managerial support to industrial entrepreneurs in Andhra Pradesh (Reddy, C.V., 2013). The revenue of three regions in Andhra Pradesh in 2012-13 reveals that Telangana (inclusive of Hyderabad) has a share of Rs.48,000 crores (69 per cent); Rayalaseema, Rs.5,000 crores (7 per cent); and Andhra, Rs.17,000 crores (24 per cent), while the population shares stand at 42 per cent for Telangana, 18 per cent for Rayalaseema, and 40 per cent for Andhra (G. Gangadhar Rao, 2013). Now, the State bifurcated into two states, viz., Andhra Pradesh and Telangana. This bifurcation of state has posed many challenges to the new governments. Therefore, the policy makers in line with the Central Government policy should place much emphasis and should offer special incentives and concessions to this sector.

Statement of the Problem

Andhra Pradesh (United Andhra Pradesh), the largest state in the southern part of the country, has made rapid strides in the industrial front during the last two decades. Geographically, the State has divided into three regions, viz., Telangana (10 districts), Coastal Andhra (9 districts) and Rayalaseema (4 districts). Out of these Districts, 7 in Telangana, 3 in Andhra and 1 in Rayalaseema are considered as severely backward districts. In terms of per capita income, Telangana (with or without Hyderabad) and Coastal Andhra top the state average, Rayalaseema is a clear laggard.

Telangana contributes 36.43 per cent to the state's agriculture, 43.18 per cent to the industrial output and 30.91 per cent to the services sector. For Coastal Andhra, the numbers read 46.98 per cent, 37.16 per cent and 39.79 percent respectively. The much smaller Rayalaseema contributions are in low double digits at 16.4 per cent, 14.15 per cent and 13.77 per cent respectively (Gangadhar Rao, 2013). An examination of the revenue of regions in the state reveals that Telangana (inclusive of Hyderabad) has a share of 69 per cent, Rayalaseema has 7 per cent, and Coastal Andhra has 24 per cent, while the population shares stand at 42 per cent in Telangana, 18 per cent in Rayalaseema, and 40 per cent in Coastal Andhra. The Government of Andhra Pradesh in line with the policies of the Central Government has created an atmosphere for the growth of MSME Sector and envisaged special incentives and concessions to this sector through its Industrial Promotion Policies. Rich amount of natural resources, infrastructure in the state coupled with policy incentives, the State has become the destination for investments in MSME sector. The number of registered MSMEs has increased from 1,14,140 with fixed investment of Rs.1,639 crores in 1995 to 1,90,895 with fixed investment of Rs.20,909 crores in 2012. The corresponding growth rate (CAGR) in respect of number of units is 3.1%, and for fixed investment is 16.2%. There is high concentration of micro and small units in the food sector, mineral and building materials sector, drugs and pharmaceuticals, fabricated materials, trading and service sector. The Region wise distribution and growth of MSMEs in Andhra Pradesh is presented in the following table No.1.

Table No.1
Region-wise Distribution & Growth of MSMEs in Andhra Pradesh
(Cumulative picture for the year ending March)

Sl. No	Region	No. of Enterprises			Fixed Investment (Rs. Crores)			Employment (No. of Persons)		
		2006	2012	#	2006	2012	#	2006	2012	#
1.	Telangana	69,154	96,219	5.7	2,548.1	12,311.1	30.0	6,23,350	10,71,251	9.4
2.	Coastal Andhra	60,671	73,993	3.4	1,923.4	6,862.2	23.6	5,51,602	7,64,682	5.6
3.	Rayalaseema	16,941	20,683	3.4	491.5	1,736.4	23.4	1,50,951	2,06,355	5.3
Andhra Pradesh		1,46,766	1,90,895	4.5	4,963	20,909.3	27.1	13,25,903	20,42,288	7.5

indicates CAGR (%)

Note: Data presented in the table relate to micro and small enterprises up to 2005-06. From 2006-07, in addition, data regarding the newly registered medium enterprises are also included.

Source: Commissionerate of Industries, Andhra Pradesh, Hyderabad.

The data provided in the above table says that the Telangana region has reaped the benefits of industrialisation in the small and medium enterprise sector, as compared to Coastal Andhra and Rayalaseema regions, which showed lower level of performance, and are below the state averages. The years 2013-14 and 2014-15 just concluded saw the State bifurcated into two, viz., Andhra Pradesh and Telangana. Industrial and Business activity was affected due to prolonged political uncertainty and unrest. The performance of not only the banking sector but also many other sectors was adversely affected and APSFC has no exception to it. The re-organisation process is continuing and posing many challenges to the Corporation and showing impact on the performance of the Corporation towards the promotion of MSMEs in the newly formed state of Andhra Pradesh. Now that the “uncertainty chapter” is closed consequent on bifurcation of the State into Andhra Pradesh and Telangana, there are good prospects for the growth of business in the two States in view of the focused approach by the new Governments. The APSFC is also working out a demerger plan in tune with the A.P. Re-organisation Act. Hence, *there is an urgent need for the region-wise comparative analysis of flow of assistance by APSFC for the promotion of MSMEs in united State, which will enable the policy makers to Understand the real picture and to devise certain concrete policies for the growth and development of this sector in the newly formed Andhra Pradesh.* The present paper is a modest attempt and it focuses on broad areas: (a) the flow of credit in terms of sanctions and disbursements in general, Corporations assistance to MSMEs during the study period; (b) region-wise distribution of APSFCs lending towards the development of MSMEs both in terms of number of units and in terms of amount sanctioned.

Objectives of the Study

The objective comprise

- To analyse flow of assistance in terms of sanctions and disbursements to MSMEs,
- To highlight the sector-wise analysis of Corporations assistance to MSMEs,
- To understand the region-wise dispersal of assistance to MSMEs, and
- To suggest feasible ways and means to the Corporation for the cause of balanced regional development through the development of MSMEs in newly formed Andhra Pradesh.

Research Methodology

Research design

In view of the objectives of the study listed above an exploratory research design has been adopted. Exploratory research is one which largely interprets the already available information and it lays particular emphasis on analysis and interpretation of the existing and available information and it makes use of secondary data.

Sources of data

The study is purely based on secondary data compiled from the annual statistics of APSFC ranging for the past 6 years.

Hypothesis

H₀₁: There is a close association between the gross sanctions and sanctions to MSMEs.

H₀₂: There is no significant difference between gross disbursements and disbursements to MSMEs.

Tools for Data Analysis

The data collected for the study has been analysed logically and meaningfully to arrive at meaningful conclusions. The statistical tools applied for data analysis are simple percentages, mean, variance, standard deviation, correlation test, regression test, t-test and ANOVA-Single Factor.

Scope of the study

The scope of the study is defined below in terms of role of APSFC in promoting MSMEs in united Andhra Pradesh. Firstly, the flow of credit in terms of sanctions and disbursements in general, Corporations assistance to MSMEs during the study period in particular has been covered. Secondly, district-wise, region-wise distribution of APSFCs lending towards the development of MSMEs both in terms of number of units and in terms of amount sanctioned and disbursed has been discussed. Thirdly, to capture the trend precisely the sanctions and disbursements by the Corporation to this sector has been regressed on

time. With a view to analyse whether there is a significant difference between assistance given by the Corporation to Micro, Small, Medium and other enterprises over the years of the study period, ANOVA: single Factor has been performed. Fourthly, the problems of MSMEs in the State were examined. Lastly, few suggestions were offered for strengthening MSMEs in the State in particular and in India in general.

Limitations of the Study

The information used is primarily from historical annual statistics available to the public and the same doesn't indicate the current situation of APSFC. Detailed analysis could not be carried for the research work because of the limited time.

Data Analysis & Interpretation

Flow of Assistance in terms of Sanctions to MSMEs:

The APSFC as premier state level financial institution, as an integral part of the development financing system in the country has gained prominence for playing its role in the achievement of rapid and high quality industrial growth in the state. It offers a package of assistance to the entrepreneurs to enable them to translate their project ideas into reality. It has been continuously doing its best in every possible area of its operations to retain its premier position among the SFCs in the country. Table No.2 and Table No.5 represents the data relating to gross sanctions and disbursements made to MSMEs by the Corporation during the period of 6 years.

Table No.2
APSFC: Flow of Assistance in terms of Sanctions to MSMEs
(Rs. in crores)

Year	Gross Sanctions	Sanctions to							
		Micro Enterprises	% to Total	SSI Sector	% to Total	MSI Sector	% to Total	Others	% to Total
2008-09	885.66	37.73	4.26	414.00	46.74	184.57	20.83	249.37	28.15
2009-10	1052.38	103.24	9.81	610.00	57.96	260.86	24.78	78.28	7.43
2010-11	1386.38	75.81	5.46	634.98	45.80	286.41	20.65	389.18	28.07
2011-12	1368.82	69.71	5.09	791.03	57.78	242.07	17.68	266.01	19.43
2012-13	1430.12	72.85	5.09	782.81	54.73	168.73	11.79	405.73	28.37
2013-14	1315.34	74.98	5.70	882.58	67.09	230.76	17.54	127.01	9.65
Mean Percentage	1239.78	72.38	5.90	685.90	55.01	228.90	18.87	252.60	20.18

Source: Compiled from the Annual Statistics of APSFC (2008-09 to 2013-14)

The mean sanctions by the Corporation over the study period are Rs.1239.78 crores. During the study period, the mean sanctions to micro enterprises are Rs.72.38 crores, which accounts for 5.90 per cent, mean sanctions to SSI sector are Rs.685.90 crores, which accounts for 55.01 per cent, mean sanctions to MSI sector are Rs.228.90 crores,

which accounts for 18.87 per cent and mean sanctions to other than MSMEs are Rs.252.60 crores, which accounts for 20.18 per cent. Therefore, it may be concluded that the APSFC has been given top priority to small-scale sector followed by medium scale enterprises, micro enterprises.

Table No.3
Correlation Analysis

Variables		Micro Enterprises	SSI Sector	MSI Sector	Others
Micro Enterprises	Pearson Correlation	1.00			
	Sig.(2-tailed)				
	N	6			
SSI Sector	Pearson Correlation	0.409*	1.00		
	Sig.(2-tailed)	0.421			
	N	6	6		
MSI Sector	Pearson Correlation	0.567*	0.069*	1.00	
	Sig.(2-tailed)	0.120	0.448		
	N	6	6	6	
Others	Pearson Correlation	-0.367*	-0.012*	-0.229*	1.00
	Sig.(2-tailed)	0.237	0.491	0.331	
	N	6	6	6	6

*.Correlation is insignificant at 0.05 level (2-tailed)

Source: Calculated using SPSS Statistics 21.

It may be inferred from the above correlation matrix that high correlation exists between 'micro enterprises' and 'medium size enterprises' at 0.567, which is insignificant at 95% confidence interval. The correlation of 'other than

MSMEs sector' with Micro, Small and Medium sectors exists at -0.367, -0.012, -0.229 respectively indicating an unhealthy relation between MSME and non MSME sector.

Table No.4
Regression Test

<i>Between Gross Sanctions & Sanctions to Micro Enterprises:</i>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.303 ^a	0.092	-0.135	22.24382
a. Predictors: (Constant), Gross Sanctions				
b. Dependent Variable: Sanctions to Micro Enterprises				
<i>Between Gross Sanctions & Sanctions to Small scale Enterprises:</i>				
1	.813 ^a	.661	.576	109.54213
a. Predictors: (Constant), Gross Sanctions				
b. Dependent Variable: Sanctions to Small -Scale Enterprises				
<i>Between Gross Sanctions & Sanctions to Medium scale Enterprises:</i>				
1	.173 ^a	.030	-.213	49.47000
a. Predictors: (Constant), Gross Sanctions				
b. Dependent Variable: Sanctions to Medium -Scale Enterprises				
<i>Between Gross Sanctions & Sanctions to Other than MSMEs:</i>				
1	.516 ^a	.266	.082	127.41288
a. Predictors: (Constant), Gross Sanctions				
b. Dependent Variable: Sanctions to other than MSMEs (Others)				

Source: Calculated using SPSS Statistics 21.

In the first set of comparison, the correlation coefficient between the variables is 0.303, which is insignificant and the regression value is 0.092 showing an impact of 9.2 per cent on the dependent factor. In the second set of comparison, the correlation between the variables is 0.813, which is significant and the regression value is 0.661 showing an impact of 66.1 per cent on the dependent factor. While

the correlation between the variables in third set of comparison is 0.173, which is insignificant and the regression value is 0.030 showing an impact of 3 per cent on dependent factor. Fourthly, the correlation between the variables in comparison is 0.516 and the regression value is 0.266 showing an impact of 26.6 percent on dependent factor.

Table No.5
APSFC: Flow of Assistance in terms of Disbursements to MSMEs:

(Rs. in crores)

Year	Gross Disbursements	Disbursements to							
		Micro Enterprises	% to Total	SSI Sector	% to Total	MSI Sector	% to Total	Others	% to Total
2008-09	685.69	29.81	4.34	272.97	39.80	121.74	17.75	261.18	38.09
2009-10	707.98	80.75	11.40	377.76	53.35	176.83	24.97	71.84	10.14
2010-11	904.35	67.91	7.50	174.11	19.25	149.04	16.48	313.58	34.67
2011-12	936.90	56.41	6.02	499.14	53.27	153.63	16.39	227.71	24.30
2012-13	951.41	61.32	6.44	484.10	50.88	104.64	10.99	301.35	31.67
2013-14	882.76	65.46	7.41	632.95	71.70	127.51	14.44	56.84	6.43
Mean Percentage	844.84	60.27	7.19	406.83	48.04	138.89	16.84	205.41	24.22

Source: Compiled from the Annual Statistics of APSFC (2008-09 to 2013-14)

The mean disbursements by the Corporation over the study period are Rs.844.84 crores. The analysis of the mean disbursements of the Corporation during the study period reveals that the SSI sector ranked first with an amount of Rs.406.83 crores, which accounts for 48.04 per cent, followed

by MSI sector with Rs.138.89 crores, which accounts for 16.84 per cent, micro enterprises with Rs.60.27 crores, which accounts for 7.19 per cent, and other than MSMEs with Rs.205.41 crores, which accounts for 24.22 per cent.

Table No.6
Correlation Analysis

Variables		Micro Enterprises	SSI Sector	MSI Sector	Others
Micro Enterprises	Pearson Correlation	1.00			
	Sig.(2-tailed)				
SSI Sector	Pearson Correlation	0.184*	1.00		
	Sig.(2-tailed)	0.728			
MSI Sector	Pearson Correlation	0.556*	-0.233*	1.00	
	Sig.(2-tailed)	0.252	0.657		
Others	Pearson Correlation	-0.452*	-0.560*	-0.421*	1.00
	Sig.(2-tailed)	0.368	0.248	0.406	
		N	N	N	N
		6	6	6	6

*.Correlation is insignificant at 0.05 level (2-tailed)

Source: Calculated using SPSS Statistics 21.

It may be inferred from the above correlation matrix that high correlation exists between 'micro enterprises' and 'medium size enterprises' at 0.556, which is insignificant at 95% confidence interval. The correlation of 'other than

MSMEs sector' with Micro, Small and Medium sectors exists at -0.452, -0.560, -0.421 respectively indicating an unhealthy relation between MSME and non MSME sector.

Table No.7
Regression Test

<i>Between Gross Disbursements & Disbursements to Micro Enterprises:</i>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.246 ^a	.060	-.175	18.44717
a. Predictors: (Constant), Gross Disbursements				
b. Dependent Variable: Disbursements to Micro Enterprises				
<i>Between Gross Disbursements & Disbursements to Small scale Enterprises:</i>				
1	.376 ^a	.141	-.073	172.44162
a. Predictors: (Constant), Gross Disbursements				
b. Dependent Variable: Disbursements to Small-Scale Enterprises				
<i>Between Gross Disbursements & Disbursements to Medium scale Enterprises:</i>				
1	.301 ^a	.091	-.136	27.61959
a. Predictors: (Constant), Gross Disbursements				
b. Dependent Variable: Disbursements to Medium -Scale Enterprises				
<i>Between Gross Disbursements & Disbursements to Other than MSMEs:</i>				
1	.338 ^a	.114	-.108	119.46309
a. Predictors: (Constant), Gross Disbursements				
b. Dependent Variable: Disbursements to other than MSMEs (Others)				

Source: Calculated using SPSS Statistics 21.

In the first set of comparison, the correlation coefficient between the variables is 0.246, which is insignificant and the regression value is 0.060 showing an impact of 6.0 per cent on the dependent factor. In the second set of comparison, the correlation between the variables is 0.376, which is insignificant and the regression value is 0.141 showing an impact of 14.1 per cent on the dependent factor. While the correlation between the variables in third set of comparison is 0.301, which is insignificant and the regression value is 0.091 showing an impact of 9.1 per cent on dependent factor. Fourthly, the correlation between the variables in comparison is 0.338 and the regression value is 0.114 showing an impact of 11.4 percent on dependent factor.

Sector-wise analysis of Assistance to MSMEs

The MSME sector has been the thrust area of the Corporation, which is evidenced in the significant amount of sanctions and disbursements channeled to this sector. Table No.8 gives the proportions of MSMEs in the sanctions made by the APSFC from 2004-05 to 2013-14. The proportions show frequent fluctuations during the period. Therefore, no comment is possible on the changes in the relative proportions of these sectors. At best we can say that the percentage of share of sanctions going to small-scale sector has been consistently greater than that of the medium-scale industries.

Table No.8**APSF: Share of MSMEs and other Units in relation to total Units Assisted (Effective)**

Year	No. of MSME Units	Percentages to total	Other then MSME Units	Percentages to total	Total
2004-05	713	64.93	385	35.06	1098
2005-06	640	61.36	403	38.63	1043
2006-07	657	58.81	460	41.18	1117
2007-08	636	56.13	497	43.86	1133
2008-09	615	53.47	535	46.52	1150
2009-10	578	51.79	538	48.20	1116
2010-11	1098	82.61	231	17.38	1329
2011-12	1184	95.48	56	4.51	1240
2012-13	1303	94.83	71	5.17	1374
2013-14	1038	93.68	70	6.32	1108
Mean percentage	846.2	71.30	324.6	28.683	1170.8

Source: Compiled from the Annual Statistics of APSFC (2004-05 to 2013-14)

The percentage of share of MSMEs in relation to total number of units assisted by the Corporation over the study period has declined from 64.93 per cent in 2004-05 to 51.79 per cent in 2009-10 and again increased to 93.68 per cent in 2013-14. The mean percentage of MSMEs in relation to the total number of units sanctioned was recorded at 71.30 per cent. The percentage of other than MSMEs in relation to total number of units assisted by the Corporation over the

study period has increased from 35.06 per cent in 2004-05 to 48.20 per cent in 2009-10 and again decreased to 6.32 per cent in 2013-14. The mean percentage of other than MSMEs in relation to the total number of units sanctioned was recorded at 28.68 per cent. The best fitted model for percentage of MSMEs in relation to total units assisted by the Corporation over the study period is:

**Table No.9
Regression Test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.766 ^a	0.587	0.535	188.52772
a. Predictors: (Constant), Time Period				
b. Dependent Variable: MSME Units				
1	0.734 ^a	0.539	0.481	143.62171
a. Predictors: (Constant), Time Period				
b. Dependent Variable: Other than MSME Units				

Source: Calculated using SPSS Statistics 21.

In the first set of comparison, the correlation coefficient between the variables is 0.766, which is significant and the regression value is 0.587 showing an impact of 58.7 per cent on the dependent factor. While the correlation between the variables in second set of comparison is 0.734, which is significant and the regression value is 0.481 showing an impact of 48.1 per cent on dependent factor.

Assistance sanctioned and disbursed to MSMEs

MSMEs play a vital role in generating employment, dispersal of industries to semi-urban and rural areas, promoting entrepreneurship, narrowing economic imbalances, effective utilization of locally available resources. Keeping in view of the above advantages, the SFC's Act laid emphasis on the

SFCs to cater to the financial needs of MSMEs. Therefore, the promotion of MSMEs has directly resulted in equitable distribution of national income, wealth and economic opportunities and equitable distribution of economic power.

Therefore, a significant amount of sanctions and disbursements channelled to this sector. Table No.10 gives the data relating to the sanctions and disbursements made to MSMEs over the study period.

Table No.10

APSFC: Share of MSMEs and others in relation to total Sanctions & Disbursements (Effective)

(Rs. in crores)

Year	Amount Sanctioned			Amount Disbursed		
	Total	To MSME Sector	Per cent	Total	To MSME Sector	Per cent
2004-05	464.69	240.04	51.65	348.87	190.02	54.46
2005-06	585.96	250.71	42.78	421.72	209.87	49.76
2006-07	704.75	298.30	42.32	523.13	239.68	45.81
2007-08	1006.65	323.49	32.13	662.69	273.25	41.23
2008-09	885.66	348.69	39.37	685.69	305.02	44.48
2009-10	1052.38	437.73	41.59	707.98	330.29	46.65
2010-11	1386.38	783.90	56.54	904.35	513.42	56.77
2011-12	1368.82	966.02	70.57	936.90	680.03	72.58
2012-13	1430.12	975.07	68.18	951.41	711.83	74.81
2013-14	1315.34	883.52	67.17	882.76	692.77	78.47
<i>Mean</i>	<i>1081.78</i>	<i>585.27</i>		<i>741.84</i>	<i>439.5733</i>	
<i>Stand. Deviation</i>	<i>104.35</i>	<i>103.13</i>		<i>190.10</i>	<i>209.74</i>	
<i>Range</i>	<i>844.16</i>	<i>724.36</i>		<i>529.69</i>	<i>501.96</i>	
<i>Cor. Co-efficient</i>	<i>0.91</i>			<i>0.91</i>		
<i>t- Statistics</i>	<i>3.38</i>			<i>3.20</i>		
<i>Deg. of freedom</i>	<i>16</i>			<i>16</i>		
<i>t- Crit. value (2-tail)</i>	<i>2.11</i>			<i>2.11</i>		

Source: Compiled from the Annual Statistics of APSFC (2004-05 to 2013-14)

The above table shows the amounts of sanctions and disbursements made by the Corporation have consistently increased during the study period. The amount of sanctions to MSMEs increased from Rs.240.04 crores in 2004-05 to Rs.883.52 crores in 2013-14. The amount of disbursements to the small-scale sector has increased from Rs.190.02 crores in 2004-05 to Rs.711.83 crores in 2013-14.

In order to know whether there is a significant difference between gross sanctions and sanctions to MSMEs and gross disbursements and disbursements to MSMEs by the Corporation, ANOVA: Single Factor has been performed. The null hypothesis which is kept in view and also the results of the F-test are briefly discussed hereunder.

ANOVA: Single Factor						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1101344	1	1101344	9.912659	0.005557	4.413873
Within Groups	1999886	18	111104.8			
Total	3101230	19				

Source: Calculated using MS-Excel.

At 95% confidence level, the critical value of F for $v_1=1$ and $v_2=18$, $F_{0.05}$ is 4.41. The calculated value of F for columns is 9.91, which is greater than the critical value and falls in

rejection region. Hence, the null hypothesis (H_{01}) is rejected. The results indicate that there is a significant difference between the gross sanctions and sanctions to MSMEs.

ANOVA: Single Factor						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	414524.2	1	414524.2	8.924252	0.0079	4.413873
Within Groups	836085.3	18	46449.18			
Total	1250609	19				

Source: Calculated using MS-Excel.

At 95% confidence level, the critical value of F for $v_1=1$ and $v_2=16$, $F_{0.05}$ is 4.41. The calculated value of F for columns is 8.92, which is greater than the critical value and falls in the rejection region. Hence, the null hypothesis (H_{02}) is rejected. The results indicate that there is a significant difference between gross disbursements and disbursements to MSMEs.

Analysis of Regional Dispersal of Assistance

The object of the analysis of region wise distribution of MSMEs assisted by the Corporation is to bring out the inter-region variations in assistance, if any, so as to gauge the performance of the Corporation in the dispersal of MSMEs among the regions in the state. Table No.11 and Table No.12 depicts the trends in region wise distribution of assistance to MSMEs by the Corporation during the study period.

Table No.11
APSFC: Region-wise distribution of MSMEs assisted

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Average	% to Total
Coastal Andhra:								
MSMEs	158	128	241	362	445	331	278	22.75
Other Units	209	159	102	26	23	26	91	7.44
Total	367	287	343	388	468	357	369	30.20
Rayalaseema:								
MSMEs	165	320	293	265	313	256	269	22.03
Other Units	57	90	17	8	9	15	39	2.67
Total	222	410	310	273	322	271	308	24.70
Telangana:								
MSMEs	352	286	564	576	545	451	462	37.91
Other Units	209	237	112	24	38	29	108	8.86
Total	561	523	676	579	584	480	570	46.50
Total of A.P.:								
MSMEs	615	578	1098	1184	1303	1038	969	79.48
Other Units	535	538	231	56	71	70	250	20.51
Total	1150	1116	1329	1240	1374	1108	1219	100.00

Source: Compiled from the Annual Statistics of APSFC (2008-09 to 2013-14)

The analysis of the performance in the three regions of the state during the study period reveals that the Telangana Region received a larger share of assistance than the other two regions, Coastal Andhra and Rayalaseema regions. It therefore, emerges that neither Coastal Andhra nor

Rayalaseema regions have been given the bulk number of MSMEs sanctioned by the Corporation. The APSFC sanctioned only 22.75 per cent of MSMEs on an average to Coastal Andhra, 22.03 per cent to Rayalaseema region and 37.91 per cent to Telangana region.

Table No.12
APSFC: Region-wise distribution of assistance to MSMEs

(Rs. in crores)

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Average	% to Total
Coastal Andhra:								
MSMEs	70.83	115.23	126.15	255.61	305.61	254.75	188.03	16.69
Other Units	107.23	159.34	164.19	114.73	127.01	102.12	129.10	11.46
Total	178.06	274.57	325.15	370.35	432.63	356.87	322.93	28.66
Rayalaseema:								
MSMEs	78.03	72.19	121.28	172.16	154.27	118.56	119.41	10.60
Other Units	36.57	76.03	20.81	62.92	45.45	101.12	57.15	5.07
Total	114.60	148.22	142.09	235.08	199.72	219.68	176.56	15.67
Telangana:								
MSMEs	211.84	244.45	501.66	527.55	515.18	510.21	418.48	37.15
Other Units	227.81	258.05	236.36	176.33	167.86	164.12	205.08	18.20
Total	461.70	502.50	738.02	695.65	666.50	674.33	623.11	55.31
Total of A.P.:								
MSMEs	348.70	437.73	783.90	966.02	975.07	883.52	732.49	65.02
Other Units	405.67	509.99	421.36	335.06	323.78	367.96	393.97	34.97
Total	754.36	947.72	1205.26	1301.08	1298.85	1251.48	1126.45	100

Source: Compiled from the Annual Statistics of APSFC (2008-09 to 2013-14)

The analysis of the assistance sanctioned to MSMEs in three regions during the study period reveals that the Telangana Region received a larger share of assistance, followed by Coastal Andhra and Rayalaseema regions. It therefore, emerges that neither Coastal Andhra nor Rayalaseema regions have been given the bulk number of MSMEs sanctioned by the Corporation. The APSFC sanctioned only 16.69 per cent of its assistance to MSMEs on an average to Coastal Andhra, 10.60 per cent to Rayalaseema region and 37.15 per cent to Telangana region.

Suggestions to fill the Lacuna in bifurcated Andhra Pradesh:

1. The industrially backward districts of the state need special consideration from the Corporation while financing the MSMEs in them so as to promote balanced regional development in the

State. Therefore, the Corporation should step up its assistance for MSMEs in rural areas, (concept of rural industrialization), possibly by encouraging industrial co-operatives to come forward to start the rural and cottage industries in rural areas of the state.

2. In order to avoid heavy concentration of MSMEs in few districts (i.e., in capital region), the Corporation should decentralize its activities. Loans must be sanctioned in such a way that the maximum number of entrepreneurs must be benefited.
3. Multiple holdings by one entrepreneur with the help of assistance from the Corporation should be avoided. For this purpose, the Corporation should maintain a record of individuals who have interest in more than one assisted units.

4. It is essential to co-ordinate the activities of the Corporation with those of the DICs, supplementing the roles of each other in the dispersal of MSMEs among two regions to achieve the balanced regional development.
5. With a view to encouraging and promoting prospective entrepreneurs, EDPs have to be organized in rural as well as in the most backward districts of the state to tap local talent. It would help to realize the objective of encouraging entrepreneurs from the weaker sections. For fostering speedy growth of MSMEs in the State, some innovative strategies, viz., cluster development, export potential, and promoting complementary between small, and medium and large units should be implemented.
6. During the study period, heavy concentration of MSMEs in Telangana region has been observed and it almost neglected the Rayalaseema Region. Now, the united state has bifurcated into the Andhra Pradesh and Telangana and this most neglected region, i.e., Rayalaseema is now in Andhra Pradesh. Instead of repeating the same scenario and showing the disparity between regions, the Corporation should give equal priority to all the districts in Rayalaseema and Coastal Andhra regions.
7. The Corporation is also advised to spread its wings with more and more liberal concessions in Rayalaseema Region to establish MSMEs (because the entire Rayalaseema has declared as backward region). This would result in reducing imbalanced regional development.
8. Generally people do hesitate to invest their capital in backward areas owing to the risks involved, the Corporation should come forward to participate in equity financing there. The Corporation should also provide as much as possible technical help to MSMEs established there.
9. There should be high focus on emerging and high value added product lines to create wealth. A few emerging areas indicated for the State are: drugs, pharmaceuticals, information technology (IT and IT enabled services and BPO), bio-technology, nanotechnology, leather, textiles, garments, electronic hardware and telecommunication equipment, agro and food processing, and mineral-based product lines, gems and jewellery, apparel parks, etc.
10. Cluster approach would result in greater degree of dispersal of industries in smaller towns, apart from growth centres which are reasonably developed in earlier years. A few product lines in this category for cluster approach in the State are: cashew processing, mango jelly, fruit canning, biscuits and confectionery, marine foods, brass metal works, cast brass hardware, aluminium utensils, steel furniture, automobile industry, agricultural implements, ceiling fans, distribution transformers, wooden toys, steel rolling mills, wooden furniture, etc.
11. To overcome the key challenges of MSME sector in future, there is a greater need for sector-specific policies and interventions. Innovation, research and development, quality assurance, aggressive marketing strategies, and export-led growth in labour intensive product lines, must be looked into.

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Efficiency, Liquidity, and Profitability: Banking Performance Comparatistics

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A b s t r a c t

Financial performance in terms of profitability, liquidity and efficiency in handling its operations determines the financial position of any bank. These three key indicators are influenced by various banking operations such as deposits received, borrowings, reserves maintained by the bank, innovative banking products made available for different categories of customers, its treasury operations, loans and advances extended to its customers, fixed financial expenses of that bank, non interest income etc... The composition of debt and equity of the bank determines the extent of influence of these factors. This study focuses on measuring the performance of selected banks with regard to their efficiency, liquidity and profitability.

Key Words : Financial Performance, Liquidity, Profitability, Efficiency, Financial Products, and Treasury operations.



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Financial Institutions play an important role in the functioning of any financial system of a country. Performance of Financial Institutions is continuously observed by its customers. Efficiency and competition determine the price of the financial products. Introduction of complex financial products has expanded the banking business beyond its traditional process. Banking industry plays an important role in stabilising the financial system of a country. Efficient operation of the bank determines better economy.

Banking is used as one of the main tools for financial inclusion. This initiative makes sure that every citizen has the opportunity to engage himself in the formal financial setup of the country. This would result in easy access of the various financial products available in the country and would enhance financial stability of the economy. Financial performance in terms of profitability, liquidity and efficiency in handling its operations determines the financial position of any bank. These three key indicators are influenced by

various banking operations such as deposits received, borrowings, reserves maintained by the bank, innovative banking products made available for different categories of customers, its treasury operations, loans and advances extended to its customers, fixed financial expenses of that bank, non interest income etc... The composition of debt and equity of the bank determines the extent of influence of these factors.

In this modern era, each bank has to involve itself in innovating new banking products suitable to different categories of customers. Innovation has become the order of the day. The bank which follows traditional method and lacks initiative in innovating new services may face a critical position in making their business. This study focuses on measuring the performance of selected banks with regard to efficiency, liquidity and profitability of the banks.

Objectives

Objectives of the study comprise:

- Study of the efficiency of the selected banks,
- Study of the liquidity position of the banks,
- Examining the profitability position of the banks, and
- Comparative Analysis of their performances.

Research Methodology

There are 27 public sector banks and 21 private sector banks in India. The market capitalisation of each bank was estimated as of 28 July, 2015 and the banks were ranked. Rank 1 is assigned to the bank with highest market capitalisation. The first 10 banks are selected for study systematically. Out of these 6 are private banks and 4 banks belong to public sector.

Data required for the study is taken from the last five years financial statements. Ratio Analysis is used to analyse the performance of the banks. The following sets of ratios are used for Analysis: Efficiency Ratios, Liquidity Ratios and Profitability Ratios.

Review of Past Studies

Recent studies undertaken with regard to the performance of Indian Banks are reviewed. The following are some of the main reviews:

Goyal and Kaur (2008) reported that liquidity and NPAs of new private sector banks were insignificant. They analyzed top five and bottom five banks according to their ranking status. They ranked 20 old banks and 10 new private sector banks on the basis of CAMEL model. They also considered the financial data for the period of five years from 2003 to 2007.

Singla (2008) examined the profitability position of the banks and found that the profitability position of the banks was reasonable and consistent. Return on networth and debt equity ratio was negatively coordinated. Negative correlation was found between non-performing Assets to net advances and interest coverage ratio.

Goel and Bajpai (2013) examined the impact of global recession on Indian banks. The study used Liquidity, Capital Adequacy, and Profitability ratios to measure the impact during 2006 to 2009.

Mohanraj and Gomathi (2013) found that higher funding costs, market-to-market requirements on investment portfolios, and asset quality pressures due to a slowing economy are some of the factors which influence the profitability position of the bank. Absence of complex financial products, continuous regulation of RBI, Monetary policy tools used to adjust the monetary position of the economy favoured Indian Banking Industry during the crisis.

Prasad and Chari (2011) analyzed the profitability performance of public sector banks and categorized them under four levels, i.e., excellent, good, fair, and poor in study.

Analysis and Inferences

The banks selected for the study were analysed and inferred as following.

1. HDFC Bank

HDFC Bank is the largest bank in India in terms of its market capitalisation. Its market Capitalisation is Rs. 277,917.06crore. The bank has a strong network of 3,659 branches in 2,287 cities. It also has overseas branches in Bahrain, Hong Kong, Abu Dhabi, Kenya and Dubai. HDFC Bank has over 11,633 ATMs and a customer base of over 28 million. It is ranked 45th among the top 50 banks of the world. HDFC Bank is one of the strongest Banks in the private sector.

Table:1 Efficiency, Liquidity and Profitability of HDFC Bank Ltd.

RATIOS/YEAR	2015	2014	2013	2012	2011	Average
A. Efficiency Ratios:						
1. Operating Efficiency	0.04	0.04	0.04	0.04	0.04	0.04
2. Cost of Funds	0.05	0.06	0.06	0.06	0.04	0.05
3. Income Efficiency	0.16	0.16	0.17	0.18	0.19	0.17
4. Burden Ratio	0.43	0.45	0.43	0.43	0.41	0.43
B. Liquidity Ratios:						
1. Deposits Ratio	0.74	0.73	0.73	0.72	0.75	0.73
2. Non Deposits Ratio	0.10	0.10	0.10	0.08	0.05	0.09
3. Credit Assets	0.63	0.63	0.61	0.58	0.58	0.61
4.Short Term Investment	0.01	0.03	0.03	0.02	0.02	0.02
5. Cash to Total Assets	0.06	0.08	0.07	0.06	0.11	0.08
C. Profitability Ratios:						
1. ROE	21.34	18.27	14.50	11.24	8.64	14.8
2. ROA	0.02	0.02	0.02	0.02	0.01	0.02
3. Profit Margin	0.18	0.17	0.16	0.15	0.16	0.16
4. Asset Utilisation	0.10	0.10	0.11	0.10	0.09	0.10
5. Interest Expenses	0.04	0.05	0.05	0.04	0.03	0.04

Data Source: CMIE Prowess Database

The table depicts that the bank is able to maintain a stable level with regard to its operations. It also shows that it is efficient in reducing the interest expenses. The income efficiency ratio is comparatively low during 2014 and 2015. This depicts low income during this period. The deposits of the bank are increased and the non deposits are maintained at similar level from 2013 to 2015. Credit assets ratio shows an increasing trend. This is due to increase in the borrowings. Short term investment and cash are low during 2015.

Return on Equity shows an increasing trend. Profit Margin has increased and the interest expenses are low during 2015. Efficiency ratios show that Net interest income and income from other sources has to be increased to increase the

efficiency of the bank. With regard to liquidity position, the bank has to increase its short term investment and cash. Profitability ratios show that decrease in interest expenses and better utilisation of assets have increased the profitability position of the bank.

2. State Bank of India

SBI is the second most valued bank in India with a market capitalization of about Rs. 196,342.89crore. The bank has a strong network of 13,000 branches spread across the nation and has about 190 foreign offices in 36 countries. It is also featured in top 50 global banks in terms of its market capitalisation. It is also one of the largest employers in the country and provides employment to over 220,000 personnel.

Table:2 Efficiency, Liquidity and Profitability of State Bank of India

RATIOS	2015	2014	2013	2012	2011	Average
EFFICIENCY RATIOS						
1. Operating Efficiency	0.04	0.04	0.04	0.04	0.04	0.04
2. Cost of Funds	0.06	0.06	0.06	0.06	0.05	0.06
3. Income Efficiency	0.19	0.17	0.16	0.17	0.23	0.18
4. Burden Ratio	0.37	0.31	0.31	0.33	0.5	0.36
LIQUIDITY RATIOS						
1. Deposits Ratio	0.76	0.77	0.76	0.77	0.76	0.76
2. Non Deposits Ratio	0.09	0.09	0.1	0.09	0.09	0.09
3. Credit Assets	0.63	0.66	0.65	0.64	0.61	0.64
4.Short Term Investment	0.02	0.02	0.02	0.02	0.02	0.02
5. Cash to Total Assets	0.08	0.07	0.07	0.07	0.1	0.08
PROFITABILITY RATIOS						
1. ROE	23.46	19.41	26.77	23.59	17.62	22.17
2. ROA	0.01	0.01	0.01	0.01	0.01	0.01
3. Profit Margin	0.07	0.07	0.09	0.09	0.08	0.08
4. Asset Utilisation	0.1	0.1	0.1	0.1	0.09	0.10
5. Interest Expenses	0.05	0.05	0.05	0.05	0.04	0.05

Data Source: CMIE Prowess Database

Efficiency ratios show that the income has reduced drastically during 2012 and the income earned is better during 2015. Burden ratio shows a declining trend from 2012. This depicts that the bank is performing better in increasing its non interest income. Liquidity ratios depict that the credit extended, total assets and the cash maintained by the bank has been increased gradually during the period. The profits during 2014 and 2015 are lowered.

3. ICICI Bank

ICICI Bank is the third largest Indian bank with a market capitalization of Rs.169,642.36 crore. ICICI Bank has a customer base of over 2.5 million and has a network of 4050 branches across the country. ICICI was formed as a World Bank initiative in 1955. It has an international presence in 19 countries. The bank's employee strength was estimated at over 72,000.

Table: 3 Efficiency, Liquidity and Profitability of ICICI Bank Ltd.

RATIOS	2015	2014	2013	2012	2011	Average
EFFICIENCY RATIOS						
1. Operating Efficiency	0.05	0.05	0.05	0.06	0.07	0.06
2. Cost of Funds	0.05	0.05	0.06	0.06	0.05	0.05
3. Income Efficiency	0.04	0.04	0.04	0.43	0.51	0.21
4. Burden Ratio	0.78	0.79	0.82	0.85	0.88	0.82

LIQUIDITY RATIOS						
1. Deposits Ratio	0.47	0.48	0.47	0.47	0.49	0.48
2. Non Deposits Ratio	0.26	0.25	0.26	0.27	0.24	0.26
3. Credit Assets	0.53	0.52	0.49	0.49	0.48	0.50
4.Short Term Investment	0.03	0.03	0.04	0.03	0.03	0.03
5. Cash to Total Assets	0.03	0.03	0.03	0.03	0.04	0.03
PROFITABILITY RATIOS						
1. ROE	11.2	10.1	8.78	6.89	5.49	8.49
2. ROA	0.02	0.02	0.02	0.02	0.02	0.02
3. Profit Margin	0.14	0.15	0.14	0.12	0.1	0.13
4. Asset Utilisation	0.12	0.12	0.12	0.11	0.12	0.12
5.Interest Expenses	0.04	0.04	0.04	0.04	0.04	0.04

Data Source: CMIE Prowess Database

Operating efficiency is low during the last three years and interest income is low during the same period, this leads to low efficiency. The deposits ratio shows a fluctuating trend and the credit extended shows an increasing trend. The profit during 2015 is low but better than the average.

4. Axis Bank

It has a market capitalization of Rs.132, 451.58 crore. Founded in 1994 as UTI Bank, Axis Bank now has a network of 2402 domestic branches. The bank also has international branches in Hong Kong, Singapore, Colombo, Dubai, Abu Dhabi, and Shanghai. It employs over 37,901 employees. Axis Bank also operates in NRI Services, Investment banking and treasury operations and corporate banking.

Table: 4 Efficiency, Liquidity and Profitability of Axis Bank

RATIOS	2015	2014	2013	2012	2011	Average
EFFICIENCY RATIOS						
1. Operating Efficiency	0.03	0.03	0.03	0.03	0.03	0.03
2. Cost of Funds	0.05	0.06	0.06	0.05	0.04	0.05
3. Income Efficiency	0.19	0.2	0.2	0.2	0.24	0.21
4. Burden Ratio	0.56	0.58	0.61	0.59	0.59	0.59
LIQUIDITY RATIOS						
1. Deposits Ratio	0.69	0.73	0.74	0.77	0.78	0.74
2. Non Deposits Ratio	0.18	0.14	0.13	0.12	0.11	0.14
3. Credit Assets	0.61	0.6	0.58	0.59	0.59	0.59
4.Short Term Investment	0.04	0.03	0.02	0.01	0.03	0.03
5. Cash to Total Assets	0.04	0.04	0.04	0.04	0.06	0.04
PROFITABILITY RATIOS						
1. ROE	15.71	13.4	11.18	10.21	8.15	11.73
2. ROA	0.02	0.02	0.02	0.02	0.01	0.02
3. Profit Margin	0.17	0.17	0.15	0.15	0.17	0.16
4. Asset Utilisation	0.1	0.1	0.1	0.1	0.08	0.10
5.Interest Expenses	0.05	0.05	0.05	0.05	0.04	0.05

Data Source: CMIE Prowess Database

The cost of funds is low during 2015 and net interest income is reduced during the same year. The burden ratio is high during 2013 and low during 2015. The percentage of increase in total assets during the above period is higher than the percentage of increase in the deposits. This shows that the bank can concentrate on increasing its deposits. The bank has increased its investment in money market by 120%. The cash maintained by the bank shows a gradual increase during the above period. The net profit and the total assets shows

an increasing trend. The amount spent on interest is high during 2015.

5. Kotak Mahindra Bank

Kotak Mahindra Bank has a market capitalisation of Rs. 132,218.09 crores. Kotak Mahindra Bank was merged with ING Vysya Bank. It has 1,214 branches across the country. The bank has an employee strength of about 30,000 after the merger. The combined market capitalisation is about Rs. 1.25 lakh crore.

Table: 5 Efficiency, Liquidity and Profitability of Kotak Mahindra Bank.

RATIOS	2015	2014	2013	2012	2011	Average
EFFICIENCY RATIOS						
1. Operating Efficiency	0.08	0.07	0.07	0.07	0.09	0.08
2. Cost of Funds	0.07	0.07	0.07	0.07	0.06	0.07
3. Income Efficiency	0.38	0.31	0.32	0.35	0.46	0.36
4. Burden Ratio	0.71	0.63	0.66	0.69	0.75	0.69
LIQUIDITY RATIOS						
1. Deposits Ratio	0.49	0.47	0.43	0.39	0.37	0.43
2. Non Deposits Ratio	0.21	0.24	0.31	0.32	0.3	0.28
3. Credit Assets	0.6	0.59	0.57	0.58	0.56	0.58
4. Short Term Investment	0.02	0.03	0.02	0.02	0.02	0.02
5. Cash to Total Assets	0.03	0.02	0.02	0.02	0.03	0.02
PROFITABILITY RATIOS						
1. ROE	7.94	6.52	5.91	4.99	4.25	5.92
2. ROA	0.05	0.05	0.05	0.05	0.05	0.05
3. Profit Margin	0.17	0.17	0.15	0.15	0.17	0.16
4. Asset Utilisation	0.15	0.14	0.14	0.14	0.15	0.14
5. Interest Expenses	0.05	0.05	0.05	0.05	0.04	0.05

Data Source: CMIE Prowess Database

The operating efficiency of the bank has decreased from 2012 and it has slightly improved during 2015. The total deposits and non deposit borrowing have increased drastically during 2015. Interest expenses have also increased. This led to increase in cost of funds. Non-interest income has increased by 54% during the last year. Burden

ratio shows a higher value because of increase in non-interest expenses.

Investment in money market shows an increasing trend from 2011 and it has decreased during 2015. This has led to increase in the volume of cash with the bank. There is no

great change in the interest spent by the bank. Net profit of the bank shows an increasing trend.

6. IndusInd Bank

Founded in 1994, Hinduja Group owned IndusInd Bank has a market capitalisation of about Rs. 54,873.47 crore. The

bank employs over 15,500 employees and has a network of 638 branches and 1238 ATMs across the country. With international offices in London and Dubai, IndusInd Bank is known for its strong remittances business. The bank has an exceptionally strong business base in Mumbai, Delhi, and Chennai.

Table: 6 Efficiency, Liquidity and Profitability of IndusInd Bank

RATIOS	2015	2014	2013	2012	2011	Average
EFFICIENCY RATIOS						
1. Operating Efficiency	0.03	0.03	0.03	0.03	0.03	0.03
2. Cost of Funds	0.07	0.07	0.09	0.09	0.07	0.08
3. Income Efficiency	0.17	0.19	0.16	0.16	0.17	0.17
4. Burden Ratio	0.86	0.87	0.54	0.53	0.47	0.65
LIQUIDITY RATIOS						
1. Deposits Ratio	0.7	0.7	0.74	0.74	0.76	0.73
2. Non Deposits Ratio	0.16	0.17	0.13	0.15	0.12	0.15
3. Credit Assets	0.62	0.63	0.61	0.61	0.58	0.61
4. Short Term Investment	0.03	0.03	0.05	0.05	0.03	0.04
5. Cash to Total Assets	0.05	0.05	0.04	0.05	0.05	0.05
PROFITABILITY RATIOS						
1. ROE	2.66	2.68	2.84	2.17	1.57	2.38
2. ROA	0.02	0.02	0.01	0.01	0.01	0.01
3. Profit Margin	0.14	0.14	0.13	0.13	0.13	0.13
4. Asset Utilisation	0.11	0.12	0.11	0.11	0.09	0.11
5. Interest Expenses	0.06	0.06	0.07	0.06	0.05	0.06

Data Source: CMIE Prowess Database

Non- interest income and net total income have increased during the period. This has lowered the income efficiency ratio. On the other hand, non- interest expenses has also increased significantly which led to the increase in the Burden Ratio. Investment in money market shows a fluctuating trend. The increase in the amount of borrowing is lesser than the increase in the total assets. Net profit and total assets show an increasing trend and the equity capital are increased during 2014.

7. Bank of Baroda

Bank of Baroda is the largest Public Sector Banking Company in India with a market capitalization of about Rs.34176.54 crore. The bank is estimated to have over 5193 branches. It has a significant presence in about 25 countries. The Bank of Baroda balances out NRI services with rural and agricultural finance.

Table: 7 Efficiency, Liquidity and Profitability of Bank of Baroda

RATIOS	2015	2014	2013	2012	2011	Average
EFFICIENCY RATIOS						
1. Operating Efficiency	0.02	0.02	0.02	0.02	0.02	0.02
2. Cost of Funds	0.07	0.07	0.07	0.07	0.07	0.07
3. Income Efficiency	0.12	0.11	0.12	0.13	0.15	0.13
4. Burden Ratio	0.41	0.39	0.43	0.41	0.49	0.43
LIQUIDITY RATIOS						
1. Deposits Ratio	0.86	0.86	0.86	0.85	0.87	0.86
2. Non Deposits Ratio	0.05	0.05	0.05	0.06	0.05	0.05
3. Credit Assets	0.6	0.6	0.64	0.63	0.63	0.62
4.Short Term Investment	0.17	0.13	0.1	0.08	0.08	0.11
5. Cash to Total Assets	0.03	0.03	0.05	0.06	0.05	0.04
PROFITABILITY RATIOS						
1. ROE	11.45	11.24	12.64	11.25	8.62	11.04
2. ROA	0.01	0.01	0.01	0.01	0.01	0.01
3. Profit Margin	0.11	0.12	0.15	0.16	0.16	0.14
4. Asset Utilisation	0.07	0.07	0.08	0.07	0.07	0.07
5. Interest Expenses	0.04	0.04	0.04	0.04	0.04	0.04

Data Source: CMIE Prowess Database

Income Efficiency shows a decreasing trend and it has slightly increased during 2015. Burden ratio has faced a dip in 2014. Percentage increase in interest expenses is not met with the percentage increase in total assets. Investment in money market has increased from Rs. 73550.88 lakh to Rs. 114910.94 lakh during 2015. This has increased the short term investment ratio. Cash to total assets ratio is highest during 2014. Return on Equity, Asset Utilisation and Profit margin ratios shows higher numbers in 2013. The bank has

performed better during 2013 when compared with other years.

8. YES Bank

Yes Bank has a market Capitalisation of Rs. 33260.47 crores. It has 630 branches. It is present in 375 cities and has about 12000 employees. It is one of the fastest growing banks in India.

Table: 8 Efficiency, Liquidity and Profitability of Yes Bank

RATIOS	2015	2014	2013	2012	2011	Average
EFFICIENCY RATIOS						
1. Operating Efficiency	0.03	0.03	0.02	0.02	0.02	0.02
2. Cost of Funds	0.07	0.07	0.07	0.07	0.07	0.07
3. Income Efficiency	0.15	0.15	0.13	0.12	0.13	0.14
4. Burden Ratio	1.57	1.6	1.88	2.2	2.6	1.97
LIQUIDITY RATIOS						
1. Deposits Ratio	0.67	0.68	0.68	0.67	0.78	0.70
2. Non Deposits Ratio	0.19	0.2	0.21	0.19	0.11	0.18
3. Credit Assets	0.55	0.51	0.47	0.52	0.58	0.53
4. Short Term Investment	0.02	0.01	0.01	0.01	0.01	0.01
5. Cash to Total Assets	0.04	0.04	0.04	0.03	0.05	0.04
PROFITABILITY RATIOS						
1. ROE	4.8	4.5	3.62	2.77	2.1	3.56
2. ROA	0.01	0.02	0.01	0.01	0.01	0.01
3. Profit Margin	0.15	0.14	0.14	0.14	0.16	0.15
4. Asset Utilisation	0.1	0.11	0.1	0.1	0.08	0.10
5. Interest Expenses	0.08	0.09	0.08	0.09	0.07	0.08

Data Source: CMIE Prowess Database

The operating efficiency ratio and income efficiency ratio have increased during 2014 and 2015. The burden ratio has decreased during the same period. This is because of increase in the total income. Increase in total deposits and borrowing was not met with increase in total assets. Return on equity showed an increasing trend throughout the period. Return on assets was high during 2014. Profit Margin and Asset utilisation are high during 2011. Interest expenses ratio was high during 2014.

The table shows that the bank is efficient enough to reduce its burden ratio. Its Liquidity position is gradually increased during the study period.

9. Punjab National Bank

Punjab National bank is one of the oldest banks found in 1894. Its market capitalisation is Rs. 24823.24 crores. It focuses on agricultural and rural financing. It has 6081 branches in India and abroad.

Table: 9 Efficiency, Liquidity and Profitability of Punjab National Bank

RATIOS	2015	2014	2013	2012	2011	Average
EFFICIENCY RATIOS						
1. Operating Efficiency	0.03	0.03	0.03	0.03	0.03	0.03
2. Cost of Funds	0.05	0.05	0.06	0.06	0.04	0.05
3. Income Efficiency	0.13	0.12	0.12	0.16	0.18	0.14
4. Burden Ratio	0.31	0.26	0.29	0.33	0.33	0.30
LIQUIDITY RATIOS						
1. Deposits Ratio	0.81	0.8	0.8	0.82	0.82	0.81
2. Non Deposits Ratio	0.09	0.1	0.09	0.09	0.09	0.09
3. Credit Assets	0.64	0.64	0.64	0.64	0.64	0.64
4. Short Term Investment	0.05	0.04	0.02	0.02	0.02	0.03
5. Cash to Total Assets	0.04	0.04	0.04	0.04	0.06	0.04
PROFITABILITY RATIOS						
1. ROE	9.01	9.76	13.94	14.67	14.25	12.33
2. ROA	0.01	0.01	0.01	0.01	0.01	0.01
3. Profit Margin	0.06	0.07	0.1	0.12	0.15	0.10
4. Asset Utilisation	0.09	0.09	0.1	0.09	0.08	0.09
5. Interest Expenses	0.05	0.05	0.06	0.06	0.04	0.05

Data Source: CMIE Prowess Database

The above table depicts that the bank is efficient enough to reduce its cost of funds and is efficient in generating income. Liquidity position shows that the bank has increased its investments in money market and the cash ratio has lowered gradually. Profitability ratio reveals that the profit margin has reduced throughout the study period. Interest expenses ratio has reduced which is a positive sign.

10. Canara Bank

Canara Bank is one of the Public Sector Units with a market Capitalisation of Rs. 17246.04 crore. It was Nationalised in 1976. The bank has 3600 branches across the country. It is the first bank among PSU to emphasise on e-banking and online services. Along with commercial banking Canara bank has also become a strong provider of corporate banking services in India.

Table: 10 Efficiency, Liquidity and Profitability of Canara Bank

RATIOS	2015	2014	2013	2012	2011	Average
EFFICIENCY RATIOS						
1. Operating Efficiency	0.03	0.03	0.03	0.03	0.03	0.03
2. Cost of Funds	0.05	0.05	0.06	0.06	0.04	0.05
3. Income Efficiency	0.13	0.12	0.12	0.16	0.18	0.14
4. Burden Ratio	0.31	0.26	0.29	0.33	0.33	0.30
LIQUIDITY RATIOS						
1. Deposits Ratio	0.81	0.8	0.8	0.82	0.82	0.81
2. Non Deposits Ratio	0.09	0.1	0.09	0.09	0.09	0.09
3. Credit Assets	0.64	0.64	0.64	0.64	0.64	0.64
4. Short Term Investment	0.05	0.04	0.02	0.02	0.02	0.03
5. Cash to Total Assets	0.04	0.04	0.04	0.04	0.06	0.04
PROFITABILITY RATIOS						
1. ROE	9.01	9.76	13.94	14.67	14.25	12.33
2. ROA	0.01	0.01	0.01	0.01	0.01	0.01
3. Profit Margin	0.06	0.07	0.1	0.12	0.15	0.10
4. Asset Utilisation	0.09	0.09	0.1	0.09	0.08	0.09
5. Interest Expenses	0.05	0.05	0.06	0.06	0.04	0.05

Data Source: CMIE Prowess Database

The bank is efficient enough to reduce the cost of funds but burden ratio has increased. This is due to increase in operating expenses and it is not met by increase in non-interest income. Liquidity position of the bank reveals that the bank has increased its investment in money market and

there is no great change in the cash maintained by the bank to its total assets owned by the bank. Return on Equity is low during 2014 and 2015 and its profit margin also faces a downward trend.

Table: 11 Overall Ratios – Efficiency, Liquidity and Profitability

RATIOS/BANKS	HDFC	SBI	ICICI	Axis	Kotak	IndusInd	BOB	YES	PNB	Canara	AVG
EFFICIENCY RATIOS											
1. Operating Efficiency	0.04	0.04	0.06	0.03	0.08	0.03	0.02	0.02	0.03	0.02	0.04
2. Cost of Funds	0.05	0.06	0.05	0.05	0.07	0.08	0.07	0.07	0.05	0.06	0.06
3. Income Efficiency	0.17	0.18	0.21	0.21	0.36	0.17	0.13	0.14	0.14	0.09	0.18
4. Burden Ratio	0.43	0.36	0.82	0.59	0.69	0.65	0.43	1.97	0.3	0.41	0.67
LIQUIDITY RATIOS											
1. Deposits Ratio	0.73	0.76	0.48	0.74	0.43	0.73	0.86	0.7	0.81	0.86	0.71
2. Non Deposits Ratio	0.09	0.09	0.26	0.14	0.28	0.15	0.05	0.18	0.09	0.05	0.14
3. Credit Assets	0.61	0.64	0.5	0.59	0.58	0.61	0.62	0.53	0.64	0.61	0.59
4. Short Term Investment	0.02	0.02	0.03	0.03	0.02	0.04	0.11	0.01	0.03	0.04	0.04
5. Cash to Total Assets	0.08	0.08	0.03	0.04	0.02	0.05	0.04	0.04	0.04	0.05	0.05
PROFITABILITY RATIOS											
1. ROE	14.8	22.17	8.49	11.73	5.92	2.38	11.04	3.56	12.33	6.87	9.93
2. ROA	0.02	0.01	0.02	0.02	0.05	0.01	0.01	0.01	0.01	0.01	0.02
3. Profit Margin	0.16	0.08	0.13	0.16	0.16	0.13	0.14	0.15	0.1	0.09	0.13
4. Asset Utilisation	0.1	0.1	0.12	0.1	0.14	0.11	0.07	0.1	0.09	0.09	0.10
5. Interest Expenses	0.04	0.05	0.04	0.05	0.05	0.06	0.04	0.03	0.05	0.06	0.05

Data Source: CMIE Prowess Database

Efficiency Ratios

The above table shows the overall performance of all the ten banks selected for the study. Operating efficiency ratios reveal that ICICI and Kotak Mahindra banks operate inefficiently compared to the overall average. Canara, BOB, and Yes Bank are operating efficiently, as their ratio is below the overall ratio. Punjab National Bank, ICICI and Kotak Mahindra are efficient enough in reducing their cost of funds. IndusInd Bank has the high cost of funds ratio.

ICICI, Axis, and Kotak Mahindra bank are efficient in generating income. Income efficiency of these banks are higher than the other banks taken for the study. The burden ratio is the highest for the YES Bank and ICICI. These banks have to increase their non interest income. Burden ratio is lowest for Punjab National Bank.

Liquidity Ratios

The deposits ratio is the highest for Canara Bank. This reveals that Canara Bank is efficient enough in increasing its deposits when compared with other banks. Kotak Mahindra is rated the lowest and the bank has to increase its deposits.

Non deposit ratio is the highest for Kotak Mahindra and ICICI. Punjab National Bank and Canara bank has the lower ratio than the overall average. SBI and Punjab National Bank have the highest credit assets ratio. This shows that the percentage of loans advanced to its customers, forms the major part of their total assets. The money invested in money market and call money is high in Bank of Baroda. Percentage of cash maintained as a part of total assets is high in SBI

and HDFC. But it is lower than the overall average in Kotak Mahindra Bank.

Profitability Ratios

SBI has the highest Return on Equity. ICICI, IndusInd, YES Bank, and Canara Bank have a lower value than that of the overall average. Kotak Mahindra Bank has got the highest return on assets. Axis and Kotak Mahindra show high profit margin when compared with the other banks. Profit margin is the lowest for Punjab National Bank. Kotak Mahindra utilises its assets better than the other banks. Bank of Baroda's Asset Utilisation ratio is the lowest. Yes Bank has the lowest interest expenses. IndusInd and Canara Bank have high interest expenses ratio than the overall average.

Conclusion

The study reveals the profitability, liquidity, and efficiency of the banks taken for the study. The burden ratio i.e., the difference between the expenses and non interest income has to be reduced. They should reduce the burden ratio by increasing the non interest income, by introducing new innovative services, by enhancing their treasury functions and by identifying the sources through which they can fetch loans at low costs. This would improve the non interest income and which in turn reduces the burden ratio. Lower the burden ratio, better is the operating efficiency of the banks.

And the overall results say that the level of deposits accepted by the banks have not increased significantly. Since the banks are concentrating on modern banking practices like concentrating on money market operations and banking services, the level of improvement in deposits has not increased. Therefore the banks have to concentrate more and adopt innovative practices to improve their business through their core banking activity. Except a few banks the return on equity shows a positive sign. Asset utilisation has to be improved, which in turn increases the operating

efficiency of the business. Periodical review should be undertaken to see that percentage change in expenses and income is fuelled by percentage change in assets. This would help the banks to ensure their liquidity position. This shows a comparison on the efficiency of the top banks.

Introduction of the 11 new payment banks as per RBI notification (20 August, 2015) is going to increase the competition in the banking sector. The main core business of the new banks is through non interest income. So it will be a tough competition to the existing banks to improve their business through non interest income. The existing banks should operate efficiently and review their key indicators periodically to withstand their position.

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Pricing of Exchange Traded Gold Funds: Capital Asset Pricing Method

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A b s t r a c t

Exchange Traded Gold Funds are units representing value of physical gold and traded through recognized stock exchange. As far as investors are concerned it opens an avenue to trade in the gold bullion market without the necessity of taking physical delivery of gold. The Gold ETF gained wide popularity during volatile market conditions after the great recession in 2009, but gradually the investors began to divert their fund as the market strengthened after a great fall. This study is focused on pricing of major Gold ETF listed with National Stock Exchange of India. It extensively covers computation of returns of Gold ETF from VWAP, assessing the beta co-efficient, evaluating return under CAPM and analyzing the result based on study. The result shows that almost all ETF Gold schemes under study were overpriced.

Key Words : VWAP, Gold ETF, Capital Asset Pricing Methods.



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Gold ETF are considered cheaper than buying gold coins or jewelry because it provides return corresponding to return provided by domestic physical gold price and it is free from other expenses like making charges, VAT, STT etc. Investing with ETF Gold schemes is safer as they are backed by physical possession of gold. ETF is working just like a stock, means the investors can freely purchase and sell ETFs during market hours and the price is determined by demand and supply factors. The values of Gold ETFs schemes are thereby very much closer to value of gold traded in the open market. In India Gold ETFs are sold in smaller unit, say the value equal to one gram of gold, and thereby it is affordable to small net-worth investors also, unlike physical possession of gold coins or bars which can be easily sold through the investors DEMAT account.

When the world economy was in recession, people deemed gold as a safest mode of investment and price of gold has risen sharply. Until 2012, gold price used to rise each year for more than 10 years. But in the first months of 2013, the gold price decreased as the economies across the world began to report the sign of survival. In 2014 a sharp fall

witnessed in gold price to Rs. 2420.96 per gram from Rs. 2958.69 per gram in 2012. The gold-ETF investor base also witnessed a steady decline. The sector lost about a fifth of the total number of folios since May 2013, when the number had touched a high of 605,000 investors, as there was speculation that gold would exceed Rs 35,000/- per 10 gram. As of now, this segment has only 480,000 folios (Source AMFI).

Review of Literature

The first gold ETF was launched in Australia in 2003 with the World Gold Council. All gold ETFs supported by the WGC are 100% backed by the physical metal. Since their inception, the combined value of gold ETFs has grown to more than \$13.3 billion, approximately the market capitalization of the average North American gold mining company. Because of gold's qualities as a hedge against the dollar, inflation, and geopolitical tensions, it is considered a safe haven and preserves its value over time says Rhona O'connell (2007).

An article steered on various positive features of Gold ETF written by Mohdsaleem and Matloobullah Khan (2013); examines the emergence and history of Gold ETFs in India and also explains proper working mechanism of this fund along with portfolio risk diversification, and tax implementation of Gold ETFs fund in India. According to sources highlighted therein first Gold ETF fund was launched by Benchmark Asset Management Company on 15 February, 2007 with a unit equal to 1 gram and it was also listed in NSE with a symbol GOLDBEES. Thereafter government mutual fund Company UTI also launched Gold ETF with NSE symbol GOLDSHARE on 01 March, 2007 and size was same as previous launched company.

A research paper written by P. Krishna Prasanna (2012) evaluates the performance of all the 82 Exchange-Traded schemes floated and traded on the Indian Stock markets. The compounded growth rates across the years 2006-2011 and its trend analysis reveal that the overseas funds as well as the Gold funds were able to impress the investors and mobilize greater resources.

Alok Goyal and Amit Joshi (2011) appraised the performance of Gold ETF's in India by looking into various aspects like financial performance, variations, and analyzed the risk behaviour of the selected Gold ETFs in comparison of NSE. Analysis was made by using financial tools like Sharpe's index, Treynor's ratio by calculating alpha, beta and standard deviation of the selected funds. The study also explored that the beta values were negative which indicated that with

increase in market, gold funds normally fell and vice versa. The study concluded that the trading of Gold ETFs is quite different from that of trading at NSE. Another research paper by Vidhyapriya and Mohanasundari (2014) also analyses the performance of various Gold ETF schemes in India.

M. Nishad Nawaz and Sudindra V. R. (2013) observed in their study various options available for investors in gold investment and to create awareness on various forms of gold investment. The study strongly suggested the investors to invest in gold ETF where possibilities of losses were limited. In an extensive research work, Tim Pullen, Karen Benson, and Robert Faff (2014) compared the investment characteristics of gold assets by employing daily data from 1987-2010 and summarized gold bullion having a strong hedging role with mere diversifying capability. Secondly the results highlighted that gold stocks, gold mutual funds, and gold ETFs tended to be diversifiers. The study concluded that both gold bullion and gold ETFs showed support for the safe investment property than gold stocks and gold mutual funds.

Ramesh Bollapragada, Igor Savin, Laoucine Kerbache (2013) prepared a research paper on price forecasting and analysis of exchange traded fund. This article addressed various queries like why ETF should be the choice for an investment, what were the key attributes of ETFs, various investments strategies and its implementations with ETFs.

Research Gap

The earlier research works had given an insight into the origin, concept, growth and development of Gold ETF's; and some researchers analyzed the investors' preference towards this instrument and their investment strategies. Even though a few research works can be identified related to the theme of subject, majority of them were hanging around the performance evaluation aspect rather than pricing. More than that Capital Asset Pricing Model was a powerful tool for measuring the asset pricing aspects and unfortunately none of the above researchers used this tool to check pricing of Gold Exchange Traded Funds. Based on the above gap the theme of research "Pricing of Exchange Traded Gold Funds: A Critical Evaluation through Capital Asset Pricing Method" formulated.

Objectives

Objectives comprised:

- To examine the return provided by Gold ETF's listed with NSE during the study period,

- To observe the movement of Gold ETF's in connection with the general market movements, and
- To evaluate the pricing of Gold ETF's using Capital Asset Pricing Method.

Purpose and Methodology

This study extensively covered 12 active Gold ETF's listed with National Stock Exchange of India. The price movements from 1st January 2014 to 31st December, 2014 were observed for the study purpose. During the above period the gold price reported a great fall and this work rationalized the impact of the same with Gold ETFs and checked whether these instruments were correctly priced in India. For the analytical purpose VWAP of 12 securities for 243 working days were considered. The research was steered through the following steps;

- ❖ By observing price movements of various funds for the study period, VWAP of various Gold ETF's were noted (Volume Weighted Average Price was equal to the sum of the volume of every transaction multiplied by the price of every transaction divided by the total volume for the trading day).
- ❖ From the observed price levels daily returns of Gold ETF's (*Rp*) & NSE Index (*Rm*) were computed.
*Returns can be computed by using (P1-P0)/P0*100.....(1)* where *P1* refers new price level and *P0* refers previous price level.
- ❖ Then the Returns of ETFs & NSE (*Rp* & *Rm*) were annualized by using the daily returns.

- ❖ Computation of the Beta Co-efficient.

Beta can be computed by using $\frac{(n\sum xy)-(\sum x \cdot \sum y)}{n\sum x^2-(\sum x)^2}$(2)

where *x* refers NSE returns (independent variable) ; *y* refers Return on ETF's (Dependant variables) and *n* stands for no. of observed returns.

- ❖ Evaluating Return under CAPM

CAPM= Rf+Beta(Rm-Rf).....(3)

where *Rf* refers Risk-free Return, and *Rm* stands for return on market Index.

Analysis and Discussions

a) Computation of Return and Beta Co-efficient

For computing the beta co-efficient; the price movements of all selected ETFs were observed from 1st January, 2014 to 31st December, 2014. The daily returns on all ETFs were computed (refer formula 1) from the observed price movements and the same was duly annualized in order to find the annual returns of Gold ETFs. Likewise daily returns of NSE were also computed and annualized in order to get the market return (*Rm*). The regression values of individual ETF's daily returns were computed against daily NSE returns (Refer formula 2) in order to identify beta of gold funds. Such computation would enable to identify the sensitivity of gold funds towards NSE Index. The annualized individual returns of the Gold ETF's under study and their beta values are represented in the below table.

Table 1: Return & Beta of Gold ETFs

Sl. No	Fund	Portfolio Return (<i>Rp</i>)%	CAPM Return (%)
1	AXIS Gold ETF	-10.83	6.41
2	Canara Robeco Gold ETF	-8.91	8.73
3	Goldman Sachs Gold ETF	-9.26	5.75
4	HDFC ETF	-10.32	5.84
5	ICICI Prudential Gold ETF	-8.91	4.75
6	IDBI Gold ETF	-10.66	5.29
7	Kotak Gold ETF	-9.6	5.76
8	Quantum Gold Fund ETF	-11.18	5.54
9	R* Shares Gold ETF	-9.05	5.99
10	Religare Invesco Gold ETF	-9.11	6.81
11	SBI Gold Exchange Traded Scheme	-9.02	6.07
12	UTI Gold ETF	-1.02	5.24
Where Market Return :28.13% and Risk free return :9%			

Source: Result of analysis

From the above, it is clear that all the funds are generating a negative return during the study period. Quantum Gold Fund exhibits the poorest performance by generating a return of -11.18%. The other funds like AXIS Gold, HDFC Gold, and IDBI Gold were generated returns of -10.83%, -10.32% and -10.66% respectively. These negative returns were reported on account of decline in the gold price during the study period (2014). Sources report that a massive withdrawal of fund from Gold ETF's during this period made the situation even worse. During this period UTI Gold ETF made a big difference by reducing the loss to merely 1.02% where all other similar funds struggling with a loss around 9%. This shows that the investors are exerting great confidence over publically managed fund during the period of hardship.

While conducting a close examination on beta value of the above funds over NSE Index; all the funds possessed a negative beta during the study period. Beta co-efficient is a strong symbol on the sensitivity towards market changes. During the period of study the NSE Index generated a positive return of 28.13%, which strongly signals that the investors are highly favoring equity shares rather than Gold/Gold

ETF's. The negative beta co-efficient obtained for the above funds will again support this argument. ICICI Pru Gold ETF has generated the most negative sensitivity towards market index with a beta co-efficient of -0.22. From this we can infer that when the market gets strengthened more fund from ICICI Gold ETF has diverted towards equity shares. In other words, this can be reasoned as Gold ETFs perceived as a viable alternative by the investors during declining market trend. And during the period of recovery it was quite natural that the investors repositioned their investment goals.

b) Computation of return under CAPM

Capital Asset Pricing Method was used to evaluate the pricing of gold funds; and before computing CAPM, the NSE return and Risk free return were computed based on some realistic assumptions. The NSE Index has produced a return of 28.13% during the study period and bank rate for the year 2014 was 9%; has been considered as risk free return. Here CAPM of each funds were computed by using appropriate values like beta, index return and risk free return (Refer formula 3). Table 2 will give a better understanding on CAPM returns of various Gold ETFs for the year 2014.

Table 2: Return under Capital Asset Pricing Method

Sl. No	Fund	Portfolio Return (Rp)%	CAPM Return (%)
1	AXIS Gold ETF	-10.83	6.41
2	Canara Robeco Gold ETF	-8.91	8.73
3	Goldman Sachs Gold ETF	-9.26	5.75
4	HDFC ETF	-10.32	5.84
5	ICICI Prudential Gold ETF	-8.91	4.75
6	IDBI Gold ETF	-10.66	5.29
7	Kotak Gold ETF	-9.6	5.76
8	Quantum Gold Fund ETF	-11.18	5.54
9	R* Shares Gold ETF	-9.05	5.99
10	Religare Invesco Gold ETF	-9.11	6.81
11	SBI Gold Exchange Traded Scheme	-9.02	6.07
12	UTI Gold ETF	-1.02	5.24
Where Market Return :28.13% and Risk free return :9%			

Source: Result of analysis

For evaluating pricing of portfolios under CAPM, the estimated return will be compared with CAPM return and if the estimated return values are higher than that of CAPM values the portfolio is assumed to be underpriced. And if the estimated return values are lower than that of CAPM

values the portfolio is assumed to be overpriced. It is a common investment principle that if a fund is overpriced it has to be sold; and if a fund is underpriced it has to be bought.

While referring Table no.2 Canara Robeco Gold ETF has produced the highest CAPM value of 8.73% but at the same time the estimated return of this fund is merely -8.91%; this shows that the fund is overpriced and selling the scheme is the best investment strategy. UTI Gold ETF has generated a fairly reasonable return of -1.02% during 2014 while comparing with other Gold Funds. But it has generated a CAPM return of 5.24% strongly indicating that this fund also priced above the normal standards. From the above analysis it can be easily inferred that all the above funds possess a return value much lower than that of CAPM value. Hence we can conclude that during 2014 all the Gold Exchange Traded Funds listed with NSE were overpriced; there by the investors tend to encash their investment in order to avoid possible future losses.

Summary of Findings

The major findings of the study can be summarized as below;

- All funds (Gold ETFs) during the study period possessing a negative return, strongly highlight the decline in gold price during 2014. The general return trend with respect to all Gold ETFs are found to be the same as they are issued on the backing of Gold.
- While examining the beta of Gold ETF's with NSE Index; a negative relation was found i.e., when gold price tends to decline, Gold ETF schemes become less attractive; and the investors withdraw their fund from these schemes by preferring equity based funds.
- CAPM shows that all the funds were overpriced during the study period as estimated returns were much lower than that of CAPM returns. If a fund is overpriced, naturally the investors tend to withdraw their investment. In the present scenario, investment in gold/ Gold ETF's found to be less attractive as other investment options are providing a much better return.

Conclusion

The investment decisions are subject to analysis on risk return characteristics. Gold ETFs are considered to be the safest mode of investment during the period of recession; and rather than waiting for a longer period investors begin to diversify their investment once the market recovered. The return, risk factors are highly correlated with demand

and supply factor in the market. In this research work, the fund pricing factor has been analyzed by using CAPM; as per law of demand when the demand for a commodity decreases, the price will decrease. The above theory has been justified here with the analysis by using CAPM on pricing of Gold ETF's.

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ASEAN-India Free Trade Agreement: Issues and Contentions

Parul Bajaj and Anuj Sharma

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AIFTA (ASEAN India Free Trade Agreement) was India's first agreement with a regional grouping which also happens to be one of the most important groupings in world trade. AIFTA became operational in the year 2010 after several rounds of negotiations. The paper attempts a systematic review of impact assessment studies done in the context of AIFTA. An attempt is undertaken to understand the research methodological processes used in these studies and identification of gap in the current literature. The paper concludes that there is no conclusive evidence to show that the agreement has benefitted India or disadvantaged it and most of the studies conducted so far are more focussed on the sector specific advantage/ disadvantage for India. The future is bright and with the conclusion of the agreement on trade in services, India has much more to look forward to with regards to AIFTA.

Keywords: FTA, AIFTA, Sector, Review, Methodology, Trade



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A free trade area is the removal of all (some) tariffs over a gradual period of time between the nations for enhancing trade with each other. This is the second form of economic integration after a PTA (Preferential Trade area). It is the most important of economic integration across the globe.¹This is the second tier of economic grouping when the countries remove tariffs amongst themselves but retain their different tariffs amongst the non-members. It shows its predominance over the custom union kind of integration. The historical study on the free trade agreements falls into two categories: the study of relevance (under the realms of pure economics), reasoning on the proliferation of FTAS all over the world, and the quantitative impact assessment studies, the focus of this review. According to Crawford (2005), the countries across the world are increasingly making RTAs the main point of commercial activities. Both north-south and south-south agreements are growing; a recent vogue is the many regional

¹ World Trade Organization(2014)

trading blocs coming into play. Traditionally the formation of FTAs occurs amongst the natural trading partners but once this option is exhausted others are explored. The major chunk of RTAs is amongst the transitional economies. Motivations behind the formation of FTAs could be political, economic, or relating to security. The Section 1 of the review paper deals with the contention, relevance, and proliferation of the origin of the free trade areas. The Second section discusses India's FTA policies. The third and the concluding section undertakes a systematic review on the impact assessment of AIFTA (ASEAN- India FTA).

The current study is based on a systematic literature review process. Resources used include books, scholarly journals, reports and conference presentations to understand the impact assessment of the Indo-ASEAN free trade agreement. Given the vastness of the current field of study the focus is on impact of free trade agreement in trade only and the study excludes the themes of proliferation, relevance, and the theoretical foundation /relevance of free trade areas. The final review consists of 34 full text studies based on AIFTA.

The initial search criterion included the following keywords, "Free Trade Agreement, India, ASEAN, Impact, trade." The date of search was set from 1990- 2015. There have been very few studies in the subject till 2005 but gained momentum thereafter. The time referred to the talk of signing of the agreement. The results for the study were sorted on the basis of relevance. The advance search excluded newspaper, magazine articles and wire feeds.

Objectives

1. The current review is undertaken to gain an insight into the impact assessment on AIFTA by following a systematic review process to identify the research gaps in the current body of literature.
2. Through the review process an understanding of methodologies used in the study of impact of AIFTA will be undertaken.
3. Lastly the review process will bring in major findings from the studies dealt in the review.

Section 1

The Contention

The Theoretical foundation of the concept lay in Viner's (1950) theory of custom union who introduced the concepts of trade diversion and creation. Since then there have been multifarious economic debates relating to the relevance of FTAs. This is a debate raging between two groups, one who state that the FTA increases the welfare and the other, who believe that this complexity of FTAs have resulted in an increase in burden of business with the firms experiencing a higher level of burden due to cost benefit effect of multiple rules of origin(ROOs.) There are arguments against PTAs whether they can divert trade from non-members to members thereby resulting in an allocative inefficiency (Bhagwati,2003 andPanagariya, 2008).This arises when non-members happen to be more efficient producers. The plurilateral FTAs have had a more significant impact relative to bilateral FTAs in stimulating trade (Sen, Srivastav and Gail, 2013).Wonnacott (1996) opines that an FTA could lead to increased competition, and specialization may reduce a partners cost enough to make it the lowest cost source, thus increasing the world welfare. The problems with FTAs arise when they tend to multiply leading to the hub and spoke problem in which the hub is benefitted at the cost of spokes. Krugman (1991) asserts that these agreements only lead to a general reduction in world welfare. The gains in intra-regional may be more than offset by the losses of the inter regional trade. The importance of natural trading partners is cited which means a much lesser reduction in welfare than if the countries were not natural trading partners. Another strong critique comes from Panagariya (2003) who contends that it is erroneous to say that high initial volumes of trade make PTAs more welfare improving. The scope of trade diversion is substantial in case of south Asian region and not advantageous for India where tariff levels are already very high and asserts that non-discrimination is preferable than preferential treatment. Bhagwati(2008) terms these FTAs as the termites in the trading system which lead to an additional burden of costs and that they are inheritantly discriminatory, the solution lies in bringing the MFN tariffs to nil. Pal (2011) talks about India's own noodle bowl and asserts that it is not the demand side which is a constraint for India's exports, the supply side issues such as lack of infrastructure, lack of technology etc. should be focussed upon. The north-south

agreement may be further detrimental as the developed nations may push for aggressive reforms which have been rejected at the multilateral level. Summers (1991) favours the formation of regional trade comes in strong support of these FTAs be it multi, uni, bi or pluri. Trade liberalization is likely to result in more of trade creation; even if it is leading to trade diversion it could still lead to an increase in welfare. He cites the importance of natural trading blocks and that many of the existing and contemplated trade agreements link nations that are already natural trading partners. Bhagwati (1996) citing the example of US speaks it has an infatuation with FTAs which may ultimately become a tragedy for the country. This can amount to little more than symbolic copycatting of other countries' FTA activity and otherwise empty gesture politics. In such cases economic strategy is conspicuous by its absence. Bergsten (1996 and 1999) asserts these agreements to be stepping stones rather than stumbling blocks and essential for the forward momentum in trade policy. It is important at the same time to launch trade liberalization on a larger scale, as the proliferation of these FTAs provide a basis for the launch of liberalization on a greater scale, the regional agreements should be rolled into multilateral agreements.

To summarize in Sally's (2006) words, for FTAs to be workable and make sensible reasoning, they should have comprehensive sectoral coverage, be consistent with relevant WTO provisions, go beyond both WTO commitments and applied practice at home. In other words, they should involve genuine and tangible, not bogus, liberalisation. There should be strong provisions for non-border regulatory cooperation, especially to improve transparency in domestic laws and regulations in order to facilitate market access and boost competition. Rules-of-origin (ROO) requirements should be as simple, generous and harmonised as possible to minimise trade diversion and red tape. He further asserts that such FTAs tend to be driven by foreign-policy aspirations, with justifications that are all too often vague, muddled and trivial, having little relevance to commercial realities and the economic nuts and bolts of trade agreements. There has to be a harmonious relationship between the multilateral and the regional process along with the increase of welfare.

Proliferation of FTAs

Menon (2008) cites various reasons for proliferation of FTAs, these are the motivational factors further branched

into general and specific. In general factors is the failing of the multilateral process, the snowballing effect meaning countries feel themselves at a disadvantage if they are not a part of any agreement. In context of Asian region, it was the successes of initiatives for economic integration in Europe and the Americas that proved to be a strong motivation to move towards regional economic cooperation and integration. The successful launch of an economic and monetary union by the euro area countries and the expansion of EU to further east as well as the success of NAFTA and the Free Trade Area of the Americas (FTA) in North Central, and South America have proven beneficial to the participating economies. The fear that the two trading giants, the EU and the US, might become more dominant and influential in rule-setting in the global trading arena has been a major impetus for the regional leaders of Asian economies to come forward to step up initiatives of regional cooperation and integration. The slow progress in the WTO/Doha round and the APEC process also prompted the regional economies to come together themselves and form trade agreements that were mutually beneficial to their circumstances. The failure of talks at multilateral levels has seen a deep proliferation of these free trade agreements all across the globe. Trade policy in Asian region has switched from non-discriminatory unilateral liberalisation, reinforced by GATT/WTO commitments, to discriminatory FTAs. This has come about after multiple negotiations have failed at the WTO level. Many nations have stirred out of WTO and are actively engaging in bilateral agreements on their own. In case of India and other countries of Asia, these agreements are more to correct the distortions offered by the western world in form of enormous groupings like NAFTA and others. Baldwin (1993) gives his views of the proliferation of the FTAs in the form of a domino theory which is a deeper integration or an expansion of current blocs sets a trigger in membership who were currently happy to be non-members. This is because the deeper integration causes losses to the firms of the non-members and the disadvantage in the larger number of markets increases. Pal (2008) talks about the proliferation of trade agreements in the US and EU countries. He cites the hub and spoke reason with the maximum benefit going to the hub (the developed countries) and the spokes (developing) nations benefit little. Raja and Sen (2004) are sceptical about the new wave of regionalism in the ASEAN region citing major reasons for joining an FTA could be for defensive in order to be a part of the hub and sometimes

FTAs are formed where political concerns override the economic advantages. They are in favour of amalgamation of FTAs rather than proliferation of new ones. Mehta and Naraynan (2006) contend that the major reason for India entering into these RTAs is the fear of so called global isolation and there should be more focus on investment and services. Farasat (2008) discusses the numerous reasons for the quest is India's desire to emerge as a global leader and not to be left out in the race of the FTAs, India's RTAs and its engagements at WTO should be complementary to each other.

India's Agreements

India's trade agreements basically fell in three categories², those with the developing countries which were limited in scope, the more comprehensive arrangements with the developing countries and those with the developed countries which it has been trying to negotiate. The major driving force in the conclusion of RTAs was more political in nature though there were supplementary factors such as improving competitiveness, providing greater economies of scale, enabling greater synergies in trade and investment etc. India offers a large market to its FTA partners and the fact that MFN tariffs are still significant make for substantial benefits. In one of early papers discussing India's policy options, Mehta and Pahariya (2006) contend that in agreements with Sri Lanka and Thailand, India showed a lack of preparedness facing a constant pressure on pruning its negative list accentuating difficulties is the ROO criterion and were in more favour of north-south rather than south south agreements.

Section 2

India-ASEAN FTA -India's transcending to the ASEAN boundaries was a gradual affair and the birth child of India's look east policy which led to a change in its conventional trade policy. Trade till now has been characterized by import licenses, high prevalence of tariffs and quantitative restrictions. India's economic reforms of 1991 led to a gradual shift when India became a sectoral dialogue partner of ASEAN in 1992, becoming a full dialogue partner of ASEAN in its fifth Asian summit in 1995 and eventually the member of the ASEAN regional forum in 1996. Negotiations with ASEAN were a stretched out affair with the FTA in goods being signed in the year 2000 and it was not before January

2010 that it became finally operational. The agreement aims to remove barriers, deepen economic linkages between the trading partners resulting in lower costs and increased intra regional trade relations. Both the regions understand the importance of their growing trade and economic interdependence. Position of ASEAN in world's exports is much stronger than that of India's.

India-ASEAN Free Trade Agreement impact studies: A Systematic Analysis

The studies on AIFTA are divided into two themes one which focus on the potential on trade between the two entities and other group which focuses on impact analysis.

Studies on AIFTA Potential

Karmakar (2005) shows that India exhibits a strong revealed comparative advantage in services when compared with goods sector compared to the ASEAN countries. India could increase its trade prospects and reap substantial gains in sectors such as Finance, Education, health, IT & Telecom, transport, movement of professionals and miscellaneous business services. Similar views are shared by Sen et al. (2004). India's merchandise exports to ASEAN have more than tripled from about US\$ 1.0 billion in 1991-92 (5.7 % of its world exports) to US\$ 3.4 billion in 2001-02 (7.7 % of its world exports). The authors further focus on service areas such as ICT, tourism, energy etc. where India and the ASEAN nations could cooperate with each other. These range from food and energy security to healthcare, aviation, tourism, logistics, educational services etc. [Gaur (2003), Chaudhary (2012), De (2014), Bainik (2014)]. Anand (2009) is of the view that India stood to gain if the relationship between the two sides goes beyond trade in goods and there is huge economic potential for both the sides with the signing of the AIFTA and exploiting each other's complementarities especially in the services sector.

Lee and Liew (2007) found that there exists integration in goods and services between the two regions but the evidence found on purchasing power parity was weak, lesser integration was found in the financial markets. Due to the weak PPP evidence, the goods and services markets will also receive substantial impact from future liberalization. This suggests that the two regions could further exploit their partnership in FTA in their complementary areas, both in goods and services markets, and financial markets, in

2. Seshadri (2009)

particular. CII (2013) report shows that ASEAN's share in India's exports has grown much more than any other destination. There are many identified sectors in the study where the value of Indian exports to ASEAN is much below the potential. Product diversification in India's imports from ASEAN is far less than India's exports to ASEAN. Both the regions could increase mutual trade with each other in selected sectors, for ASEAN this could be in the area of leather, pharmacy, auto components, gems and jewellery etc. India could enhance its products to ASEAN in machinery, engineering products, mineral products, base metal and metal articles, chemicals, drugs and pharmaceuticals, Transport equipment, Textiles and apparel, plastics optical, precision and instruments, Prepared foodstuffs, and Vegetable products etc. Standard Chartered (2014) study sees a huge potential in the region with the trade between the two regions growing in six categories of merchandise trade petroleum products, organic chemicals, vehicles, pharmaceuticals, gems and jewellery, and apparel. Exports to ASEAN will reach USD 280bn in 10 years, at which point ASEAN would hold a 15% share in Indian exports. India appears to have an advantage in pharmaceuticals, gems and jewellery, and iron and steel, while ASEAN has an advantage in natural resources and electronics. Sinha (2009) also sees a strong potential in the agreement as the trade between the two nations has already been growing at a compounded rate. Bilateral trade will increase in machinery, agricultural products, auto components, steel, chemicals and synthetic textiles. From the Indian viewpoint, the FTA will open up the US\$1.1 trillion ASEAN market to its exporters, reducing their dependence on the West. The balance of trade of the region remains tilted towards the ASEAN which can be only modified once the service sector opens to trade. In a joint study conducted by Deloitte-FICCI group (2011), an analysis of RCA amongst the major sectors shows that India has comparative advantage in textiles apparels and accessories; handicrafts, Carpets, Chemical and pharmaceutical sector. ASEAN on the other hand has comparative advantage in Machinery and appliances Sector. It is also suggested that Indian service providers to partner with established ASEAN players to serve third country markets. Batra (2006) opines that amongst the ASEAN nations high trade potential is indicated for Philippines, Vietnam and Cambodia. With countries like Malaysia, Indonesia, Singapore, India had exceeded its trade potential. There are many studies which have focussed on the trade potential in the agreement such as Sudsawasd and

Mongsawad(2007) attempted to find out trade potentialities between ASEAN-5 and the prospective partners for then proposed FTA (Australia, India, Japan, New Zealand, South Korea and US). In term of sectoral impact it was found that the textile and wearing apparel sectors would benefit significantly from eliminating import tariffs large unexplored trade potential between ASEAN-5 and India.

Impact Studies on AIFTA

In one of the most comprehensive studies related to AIFTA, Sikdar and Nag (2011) show that India will experience a massive fall in employment levels along with a fall in GDP. There is betterment in terms of price index. Malaysia, Singapore and Thailand seem to gain the most in terms of welfare and Cambodia showing the most adverse effects. Under the present scenario, maximum gains are accrued to Malaysia and Singapore and least to India. Under third scenario (All ASEAN nations included) India's GDP position falls, while not much change is seen in the prices. Malaysia, Singapore and Thailand show the same position as in current scenario whereas the smaller countries experience similar position as in case of full liberalization. By eliminating all tariffs India will see substantial increase in volume of trade though trade deficit will worsen. Cambodia, Indonesia, Vietnam, and Philippines and Thailand also show a slight increase in trade volume. Under the current scenario trade liberalization works best for Malaysia and Singapore with India showing maximum increase in trade at the cost of worsening of terms of trade. All ASEAN countries experience increased trade volumes. Under the Bilateral trade effect India's exports of major products record the largest demand in Thailand and in Cambodia when all countries implement FTA. The smaller countries of ASEAN will also become large markets for India's exports. Bilateral trade in many sectors is shown to increase phenomenally, meat and meat products, other metals, food products, oil and gas, machinery, wearing apparel, other manufactured products, chemicals, transport equipment and ferrous metals see increase in trade. In addition, when the other countries implement the FTA, sectors producing other crops, coal, and leather and leather products assume importance as exports to India. With full liberalization, sectors such as rice, dairy products, sugar, beverages and tobacco, and vegetable oil register manifold increases in their exports to India. In Plantation commodities which is in the highly sensitive list in the agreement, overall positive effect is seen. Veermani and Saini (2012) attempted a study to understand

the import impact on (Coffee, tea and pepper), their major findings were that trade creation will dominate over trade diversion in all the three sectors in both the scenarios. This will lead to a significant increase in imports, causing loss of tariff to government but consumer welfare will increase. The amount of trade creation was the highest for tea, coffee and pepper in decreasing order. The most affected countries of the trade diversion effect were Uganda, Kenya and Sri Lanka. In another study relating to plantation products Ratna and Kallumal (2012) found no threat to fisheries. In the case of tea, there is visible threat from ASEAN nations such as Vietnam and Indonesia in few categories where imports are cheaper. India was seen as cost competitive for Brunei, Singapore, and Malaysia. Export potentialities seen in case of coffee, pepper and coconut. Mohanakumar, S. (2012) focussed on impact of rubber, coffee and pepper emphasized on impact in area, productivity and price stability. Not many changes are seen in area and productivity due to liberalization of the crops. Regarding impact of the agreement the author is sceptical as these three crops are also important in ASEAN exports and most of the ASEAN countries show higher productivity in coffee and pepper though Kerala commands some advantage than Thailand in natural rubber. Similar views are held by Harilal (2010) on the impact on plantation commodities for the south Indian region. According to the author there is a huge reduction in India's tariffs and in terms of tariff commitments, India has offered much more than what it has been able to get. South East Asia and Kerala have the same kind of production of crop due to similar topography such as natural rubber, coconut, tea, coffee, Malabar spices, cashew, and tropical fish varieties. These products are placed in the category of special products where there is severe tariff reduction. Products like palm oil and natural rubber are at a severe disadvantage leaving India to compete with nations like Malaysia. A permanent import threat will also be posed to the fishery sector. The agreement will thus have a negative impact. A different and contradictory is shown by Joseph (2009) who uses a more dynamic approach of study, it is revealed that the fears that on account of duty cuts due to the FTA may lead to a surge in imports is unfounded and there are other variables the imports are dependent upon such as the exchange rate, the market, and the productivity structures in the two regions. The authors do not find any relation between imports and tariffs and also between imports and domestic prices. The import of rubber in few segments could also create value addition in the sector.

Thus no harm is seen to Plantation Commodities. Chandran (2012) does an impact study of the Indo-ASEAN FTA on the fisheries sector, little impact is seen as India's largest item of import was shrimps and prawns which are placed under the Exclusion list. This showed the major items of India's import are adequately protected under the agreement. Similarly top six items of India's export which alone accounted 76.18 percent are placed in the negative list. The simulation results showed trade creation from the RTA increases as the tariff reduction increases. The apprehension that India-ASEAN FTA will lead to substantial import of marine products into India is unfounded. In a study on the stakeholders in the fishery sector in Cochin district of Kerala, Shyam, S. S. and Geetha, R. (2011) using a sample survey found benefit to majority of stakeholders, thus the apprehensions are majorly untrue, with consumers benefitting from diversification, year round supply. Perception of fish exporters and fish processors also is positive due to economies of scale, increasing export domain, additional market access. Ample opportunities exist for the market functionaries as well. In another study on the impact on stakeholders, Jha (2013) conducted a primary survey on utilization of preferential schemes by the Indian exporters. It is clear that although India's exports to its RTA partners have increased, it is not because of the RTAs. So the RTAs per se have not been useful in helping exporters to increase their share in partner markets. While preferential imports were the driving force behind the substantial increase in total imports from the RTA partners, this indicates that non-preferential items accounted for much of the increase in post-RTA exports. Therefore, the RTAs per se cannot be said to have greatly benefited Indian exporters. Greatest number of applications for COO (Certificate of origin) was received under ISFTA. In this further analysis revealed that 11% of total export transactions were issued COO. In a survey conducted by FICCI (2013) mostly half of the respondents felt that this agreement had no impact on the exports of major industries. 35% of the respondents acknowledge that current FTA in goods has a positive impact on their imports into India due to duty reductions by India, which helps to reduce input costs. The remaining 65% felt that liberalized import regime has not had any impact on their business. In a study focussing on the impact on tea, Nagoor and Kumar (2010) showed that only 22 % of India's import demand was being met by ASEAN and scope is higher. India has an export price advantage in exporting tea to markets of Philippines, Singapore and Brunei but together

their share is minuscule in India's exports thus to conclude there is little possibility to enhance India's tea exports to ASEAN whereas there could be threat due to the agreement.

Francis (2011) in a sectoral study dwelled into the study of the pattern and composition of India's trade with ASEAN. There were significant gains for the ASEAN countries in India in several semi processed and processed agricultural commodities along with non agricultural sectors intermediate goods such as manmade staple fibres; and light manufacturing products such as furniture, lighting and prefabricated buildings; musical instruments and parts; rubber and rubber products; and wood and wood products are likely to be adversely affected by the much greater market access. The ASEAN economies will gain due to tariff liberalisation under Normal Tracks 1 and 2. Thus, under AIFTA, Indian farmers are likely to encounter significantly increased volumes of imports in the domestic markets. In contrast Ohlan (2012) presents a very grim picture of ASEAN-India FTA; there will be more surge in imports than exports as India's tariffs are higher than ASEAN nations. India-ASEAN trade intensity index has been shown declining meaning they are becoming less important trading partners. The study is also suggestive of the fact that ASEAN is more into intra regional rather than inter regional trade. Though India's export basket was highly diversified. India's comparative advantage in ASEAN's import product is found to be weak whereas ASEAN has more competitive advantage in both exports and imports. Similar view is opined by Pal and Dasgupta (2008). India stands to gain very little in the short run as preferential trade agreement is beneficial only when there is a gap between the MFN rates and the preferential rates. It will be difficult for India to make much headway in areas of agriculture, manufacturing, though there are certain products where India could still make some headway such as gems and jewellery. There is huge trade potential between India and Vietnam. The ASEAN nations on the other hand stand to gain huge in agriculture, electronics, motor car equipment etc. The authors see huge gains for India in the services sector where most of ASEAN nations are in deficit (Pal and Dasgupta, 2009). The agreement ultimately boils down to having a market access for India with Indonesia, Malaysia, Philippines and Vietnam whereas with Singapore, Thailand and Myanmar, India has already trade agreements.

Bhattacharyya, R. and Mandal, A. (2010) found India's trade is found to be below potential with Thailand, Philippines

and Indonesia and above potential with Singapore and Brunei. The removal of tariffs will result in asymmetrical gains in favour of ASEAN because ASEAN exports are sensitive to tariffs whereas Indian exports are not. ASEAN's import is driven more by country specific and size issues and less by price factors such as tariffs. However the opposite holds for Indian imports: price is more important than country specific issues or size issues. India's aggregate imports are expected to increase by 13 % due to the implementation of the FTA. Indian imports are however going to rise from all these countries except Philippines and Brunei. Thus the overall impact is negative for India. India's aggregate imports are expected to increase by about 13 % due to the implementation of the FTA. Chandran (2010) revealed that India's export and import intensity were high for ASEAN. India's exports and imports are intense with ASEAN countries compared with its trading pattern with rest of the world whereas in case of ASEAN the export intensity index was higher. A country wise analysis revealed that the highest export intensities for India were observed with Myanmar, Singapore and Vietnam whereas import intensity for India was low for the lesser developed countries of Brunei, Cambodia and Lao. India has RCA in food grains, chemicals, iron and steel, gems and jewellery, minerals. It can import edible and other agricultural products from other ASEAN countries. ASEAN has advantage in crude oil, Electrical and Electronic components and India can import them from ASEAN. With regard to Textiles and Clothing there is intense competition between ASEAN and India. India has a strong comparative advantage in Textiles. In a study on the impact on dairy trade by Mondal et al. (2012), India was having a substantial gain in the tariff lines offered for liberalization by Philippines, Myanmar and Vietnam. The total increase in exports by 2019 would be the highest in Philippines (US\$150.09 thousand), followed by Vietnam (US\$ 39.54 thousand), and Myanmar (US\$ 9.67 thousand). India is not offering much concessions as there will be little threat for a surge in imports. Products contributing to high increase in imports were whey based products, cheese and curd (Buttermilk, Curdled Milk and Yogurt). In a study focussing on the elasticity of India's exports to ASEAN, Sarkar (2010) found variability in exports to various ASEAN countries with respect to two variables of price elasticity and import of the ASEAN nation. India's export price is competitive in ASEAN markets. Thus Agreements with ASEAN will be helpful in raising its exports. The devaluation in Indian currency would be helpful to raise its exports to this region.

In another study, Pant and Sadhukan (2009) show that India's exports to ASEAN show negative income elasticity. Trade diversion when seen at a disaggregated level, is shown for all commodities exported from India to ASEAN. Increase in GDP of ASEAN has resulted in decline for India exports but it is vice versa for other three FTAs. Formation of the RTA itself has had no impact on India's exports. India's exports to ASEAN impacted only by demand constraints. Das and Tiwari (2010) in a study specific to seeing the impact of Indo-ASEAN trade agreement on the North east region show that the north east enjoys a comparative advantage over ASEAN in the share of tea, coffee, rubber, and ginger. The absence of manufactured products is a major problem of this region. These primary products could be exported more by developing specialization. The region could benefit from export of Tea, raw silk, bamboo items though it could face some stiff competition from Indonesia and also handicrafts. The free trade agreement is likely to facilitate greater trade integration between the two regions. Ahmed (2011) shows that though the agreement will be beneficial to both the regions in terms of welfare, India which will see a surge in the imports from the ASEAN countries like processed food, fisheries etc which may thus have an adverse impact on the livelihood. In India, the output of most of the commodity groups indicate change in positive direction, with relatively higher increase in wearing apparel, textile, metals, ferrous metals, electrical equipment and light manufacturing. GTAP results indicates an increase in India's global exports by 5.48 per cent. There will also be a loss in the revenue to the government along with an adverse impact on trade balance. In a study focussing on Agricultural impact due to the agreement, Raju (2010) in her book does an in-depth analysis of the trade agreement on agriculture by studying the current and potential categories of agricultural exports and imports by identifying current, dominant, and potential product lines. It concludes that by using implicit protection and implicit deprotection, it is evident that the sensitive agricultural imports from ASEAN member countries have been placed under Exclusion/Sensitive/Special products and not much impact will be seen from the agreement. Yean and Yi (2014) show that the gains will be more for ASEAN in the manufacturing sector as tariffs are high in India. An increase in 1 per cent of the GDP of ASEAN countries will result in a 1.5 per cent increase of ASEAN'S exports to India. An increase in the India's GDP will induce an increase in export to ASEAN as well, but with a smaller magnitude in terms of impact the reduction in tariffs will

lead to an increase in India's exports to ASEAN by less than 1 %. Nayak and Ahmed (2008) did an impact analysis of the agreement in the textile and clothing sector of India. The Indo-ASEAN trade in this sector has constantly shown an increase at the two digit level. It is revealed that there will be product groups which will be considered sensitive to the imports from ASEAN and there is a possibility that significant threat may emanate from the ASEAN member countries exports in the liberalized tariff regime. There are also few product groups of India from HS 57 to 59 are considered not sensitive rather complementary in nature.

Babu (2013) has done a review of various studies under the India-ASEAN FTA. He concludes that there will be gains and losses depending on sector/ timeline and other factors. In times of the slowdown in west the FTA could give access to a huge market of 600 million people for India. The author sees huge gains for both businesses and consumers provided the Government of India makes efforts for deeper engagements.

Findings

- 1) The studies are divided to understand the trade potential between the two regions or undertake an analysis of the impact of the agreement.
- 2) In context of sectoral analysis of Indo-ASEAN FTA, the studies focus more on the sensitive sectors in the agreement i.e. The plantation crops and fisheries [(Harilal (2012), Joseph (2009), Chandran (2012)). Little effort has been done to analyse the non-agricultural sector i.e. the manufacturing sector in these studies. Only one study was found Yean et al. (2014).
- 3) There are mixed reviews relating to AIFTA. Some studies Pal and Dasgupta(2010) and Francis(2009) see no advantages whereas others Sikdar and Nag(2011) show gains from the agreement.
- 4) When a single sector is analysed there can be gains in few product categories and losses in another. Example Dairy sector analysis by Mondal et al. (2011).
- 5) Only two studies found on the Impact of AIFTA to the final stake holders Jha (2013), Shyam and Geetha (2011).

The future- There is a growing body of trade literature which is talking about growing complementarity in India and ASEAN relationship. The range of existing complementarities between ASEAN and India are substantial and still are not fully exploited (Sen, 2004). For such

agreements to be successful, private sector cooperation, more competitiveness in the economies of both the nations, transportation and communication links are vital in boosting trade links with one another (Gaur, 2003). While the impetus for mutual cooperation is strong, forging a strong partnership in the 21st century will require ASEAN and India to overcome several formidable challenges and seize key opportunities with courage, vision and deftness.

From the ASEAN experience it is necessary for leaderships to give primacy to economic issues and not allow political differences to stand in the way of regional cooperation. It is necessary that negotiators have a positive attitude towards greater openness especially in situations where trading relations among neighbours are not well developed. In the case of ASEAN countries, large negative lists, limited number of concessional tariff lines, restrictive rules of origin, exclusion of services, NTBs etc., changed in favour of greater openness because of the cooperative attitude of negotiators on all sides. This happened despite great differences in governance structures and outlooks. The small volume of trade between India and ASEAN is hardly an indicator of its economic importance to India. What is more compelling is the fact that though the volume of trade is small, the export basket has potential to move up the value chain and diversify to cater to the emerging and growing demand in the ASEAN countries. Compared to other regional groupings, ASEAN

is the fifth most important market in the world in terms of Indian exports and fourth in terms of imports.

India must focus on the commodity groups that are of maximum importance to ASEAN so that Indian exports to the region may reach the targeted level of USD³. Developing transparent, business friendly, smooth custom oriented agreements, is what ultimately makes a success out of a Free trade agreement. The ASEAN FTA could mark a new start. And India's importance and relevance will grow as the ASEAN members, like many Western countries, take note of the strident march of its economy and its infinite potentials. Among ASEAN's existing 10 members not many have so far really seriously tried economic development or have reaped many of its fruits. But some like Singapore, Indonesia and Thailand are very much in the game. An enlarged opportunity for doing business with a vibrant, emerging economy such as India's would be for them a welcome break. Every country likes to have multiple choices when it comes to picking partners for interaction. In making the choice, it takes into account not just political and strategic perspectives but also the economic calculus. India is one of the top seeds on both these counts. The India-ASEAN FTA would hasten process of coming together of parties who in many ways are natural complements of each other. With the signing of the AIFTA in services, the time is again ripe for ushering in a new era of trade.

Tables and Exhibits

India- ASEAN FTA Systematic Review

Table 1 : Inclusion and Exclusion Criterion used

Inclusion Criterion	Exclusion Criterion
AIFTA goods	AIFTA services
Impact studies	Political Themes
Utility Studies	Economic Theory

Source: Authors' Compilation

Table 2 : Major Themes in Studies on AIFTA

Theme	Number of papers
Studies on Potential	14
Studies on Impact	21
Studies on Impact on Stakeholders	2
Total	37

Source: Authors' Compilation

Table 3: Various methodologies used in impact studies(Some have used more than one tool)

Methodology Type	Number of Papers found
RCA/export intensity/import intensity	8
Statistical	18
Gravity	5
Regression	2
WITS SMART Simulation	4
CGE Model(GTAP)	2
Survey	4

Source: Authors' Compilation

Table 4: Top Journals in which relevant articles were found

Name of Journal	Number of articles found
ASEAN Economic Bulletin	2
Economic and Political weekly	6
MPRA papers	4
Foreign Trade Review	2
IPCS(Institute of Peace and Conflict studies) Special Report	2
FICCI survey	2
Others	19

Source: Authors' Compilation

Table 5: Sectoral Studies relating to Impact of AIFTA

Sector	Number of relevant Studies
Fisheries	2
Plantation	6
Dairy Products	1
Agriculture	1
Textile and garments	1
General Analysis of important sectors	10
Trade Potential	12
Stakeholder Survey	2
Tea	1
North east region	1
Total	37

Source: Authors' Compilation

Table 6: Sources of data

Source of data
Pro Quest
JSTOR
Ebscohost
SSRN
Emerald insight
Google Scholar

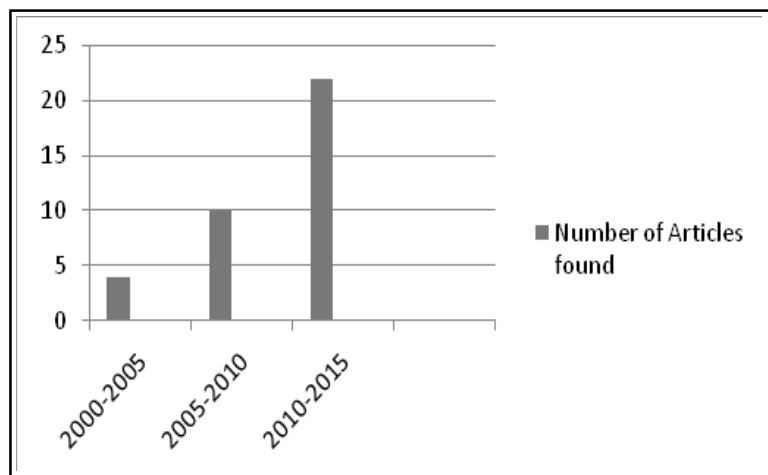
Source: Authors' Compilation

Table 7: List of Resources where relevant articles were found

Scholarly Journals	17
Reports	7
Seminar Presentation	1
Miscellaneous Research Council and Network, bank and discussion Papers	6
Periodicals	6
Book	1
Total	37

Source: Authors' Compilation

Graph showing year and the number of relevant Impact studies found



Source: Authors' Compilation

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Impact of Job Embeddedness on Leave Intention

Nandini Borah and Bitopi Gogoi Malakar

A b s t r a c t

Today's business world is very dynamic in nature where firms compete to achieve sustainable growth. This global environment has not only changed the way firms operate and conduct business, but have also created the need for organizations to manage and retain their workforces in a global context. Job embeddedness theory is a relatively new perspective in turnover research and is a collection of forces that influence employee retention. The study attempts to investigate the relationship of job embeddedness with leave intention of employees. The results of the study show that job embeddedness is negatively related to leave intention of employees. The paper also discusses the implications for managers and direction for future research.

Key Words : *job embeddedness, leave intention, employee turnover, banking institutions, and employment alternatives*



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Voluntary turnover of employees has always been considered a large and serious problem for organizations and a great deal of research has been undertaken to understand the phenomenon (Mitchell, Holtom, Lee, Sablinski, and Erez, 2011). The huge costs involved in hiring the employees and training them make it difficult for organizations to let go the employees. So, retaining the best ones becomes an important decision for the firms. Employees may leave the jobs due to social, financial and psychological factors being the major ones. The employees may also lack the feeling of belongingness to the organization.

Traditional research has focused more on attitude-driven process and its component parts (Maertz and Campio, 1998; Hom and Griffeth, 1995). The two most frequently tested attitudinal constructs have been job satisfaction and organizational commitment. In general, empirical results suggest satisfaction and commitment to have consistent, statistically significant and negative relationships with turnover (Jaros, 1997). The traditional attitude model also

suggests that negative attitudes combine with job search to predict attrition (Blau, 1993). Although much of the research described above found significant results, these results are modest, at best. In their quantitative reviews, Hom and Griffeth (1995) and Griffeth et al. (2000) report that attitudinal variables control only about four to five percent of the variance in turnover.

Statement of the problem

The organizational cost of leaving a job is very high, and it is not surprising that managers are focusing on employee retention in today's organizations. It is important to understand "why people leave" and "why do they stay." Employees form social relationships inside and outside the organization which is believed to create social capital (Holtom et al., 2006). Traditional models of turnover have emphasized only on work related factors, however, it is a fact that an individual's propensity to leave a job depends upon many personal, organizational, and environmental factors (Qadeer et al., 2011). Job embeddedness is one construct which explains "why people stay in their jobs" (Mitchell, Holtom, Lee, Sablinski, and Erez, 2001). The term embeddedness has been used in the sociological literature to explain the process by which social relations influence and constrain economic action (Granovetter, 1985; Uzzi, 1997).

This study makes an empirical investigation to explain leave intention in the banking sector with respect to job embeddedness construct and attempts to validate the construct in Guwahati region of Assam. Job embeddedness framework has already been tested in various contexts to explain leave intention. However, to the best of our knowledge, hardly any study in this region has been conducted that uses this framework.

Literature review

Job embeddedness

The concept of job embeddedness was first developed by Mitchell, Holtom, Lee, Sablinski, and Erez (2001) to explain why people stay in their jobs. Job embeddedness (JE) represents a broad assemblage of influences on employee retention (Mitchell, Holtom, Lee, Sablinski, and Erez, 2001). Symbolically, embeddedness is like a mesh or a web in which one can become "stuck." One who is highly embedded has many links that are close together and one can be enmeshed

or embedded in different ways. The critical aspects of job embeddedness are (a) the extent to which people have links among people and activities, (b) the extent to which their job and community are similar to or fit with the other aspects in their life space and, (c) the ease with which links can be broken—what can be given up if they leave (Mitchell, Holtom, Lee, Sablinski, and Erez, 2001). These three dimensions are called links, fit and sacrifice in the organization and in the community.

Links are characterized as formal or informal connections between a person and institutions or other people (Mitchell, Holtom, Lee, Sablinski, and Erez, 2001). A number of strands connect an employee in a social, psychological, and economic web that includes both work and non-work elements (Mitchell, Holtom, Lee, Sablinski, and Erez, 2001). The higher the number of links between the person and the web, the more an employee is bound to the job and the organization.

Fit is defined as an employee's perceived compatibility or comfort with an organization and his or her environment (Mitchell, Holtom, Lee, Sablinski, and Erez, 2001). An employee's personal values, career goals and plans must "fit" with the demands of his or her immediate job and the organizational culture. Better the fit, the higher the likelihood that an employee will feel professionally and personally tied to the organization.

Sacrifice captures the perceived cost of material or psychological benefits that may be forfeited by leaving one's job (Mitchell, Holtom, Lee, Sablinski, and Erez, 2001). The more an employee gives up when leaving, the more difficult it is to sever employment with the organization (Shaw, Delery, Jenkins, and Gupta, 1998). Non-portable benefits like stock options or defined benefit pensions may involve sacrifices and these have been shown to be related to turnover (Gupta and Jenkins, 1980).

Leave intention

Theoretical and empirical evidence suggests that intention to quit is an important variable to understand actual employee turnover (Ajzen, 2002). Most researchers have accepted that leave or stay intention with a particular employer is the final cognitive step in the decision making process of voluntary turnover and leave intention of

employees is purely behavioral in nature (Qadeer et al., 2011). Meta correlation studies by Steel and Ovalle (1984) report that correlation between intent to leave and employee turnover is 0.50. Dalessio et al. (1986) further argue that more attention should be given to the direct and indirect influences of factors on intention to quit as opposed to the actual act of turnover. Thus, from the employer's standpoint, intention to quit may be more important variable than the actual act of turnover.

In most of the turnover studies, researchers focus on work-related attitudes and employment alternatives. According to these approaches, job satisfaction is considered to be an important and principal determinant of leave intention. Many studies have proved job satisfaction as a reliable predictor of turnover (Oktay, 1992; Hellman, 1997; Manlove and Guzell, 1997; Feng and Angeline, 2010) and shown to have a direct effect on leave intention as well (Klenke-Hamel and Mathieu, 1990; Liou, 1998; Harrington et al., 2001; Lambert et al., 2001). However, the traditional model does not hold true in all cases. Research has shown that before changing job, people make comparison between the investment made in the job or organization, the rewards, quality of alternatives, and associated costs dispensed for working with a particular organization and these comparisons are flexible (Rusbult and Farrell, 1983; Rusbult et al., 1988). Hom, Lee and Mitchell (1994) describe four paths that employees follow while considering to leave an organization. According to Alam et al. (2010), employees require some "shock" or outside force to reconsider staying with an employer and these shocks are not limited to work factors and may include any factor, which causes an employee to consider leaving a current job. These studies have emphasized that many people leave their jobs not just because of negative effect (that is, job dissatisfaction) but also due to "shocks" (Holtom, 2005; Alam et al., 2010).

Thus, Mitchell et al. (2001) introduced organizational attachment construct 'job embeddedness' to help address the effect of both work and non-work related factors on employee's stay in an organization which discourages their voluntary turnover. The more embedded an individual is, the greater the inertia, the greater the force required for inducing the person to leave. Several research studies have been conducted which validate the model proposed by Mitchell et al. (2001). The findings suggest that job

embeddedness is a valuable predictor to evaluate employee's retention (Holtom and O' Neill, 2004; Lee et al., 2004; Cunningham et al., 2005; Tanova, 2006; Mallol et al., 2007).

Objectives

Objectives are: To establish the validity of job embeddedness model in Guwahati, Assam, and to determine the impact of job embeddedness on leave intention of employees.

Hypothesis

To establish the validity of the job embeddedness model, following hypotheses are formulated:

Hypothesis 1(a): The subscales representing three dimensions of job embeddedness demonstrate adequate levels of reliability.

Hypothesis 1(b): There is a high inter-correlation between the three dimensions of job embeddedness.

Hypothesis 1(c): There is a high item to total correlation in the job embeddedness scale.

To fulfill the second objective, the following hypothesis is formulated:

Hypothesis 2: Leave intention negatively relates to job embeddedness.

Methodology

A self-report questionnaire was designed and completed by banking professionals in Guwahati region of Assam. Data was gathered using a hardcopy survey. Employees were informed about the purpose of the study and its confidentiality. The sample consisted of randomly selected 120 professionals from three large private sector banks having branches in Guwahati. A total of 93 usable questionnaires were returned (78% response rate). The final sample consisted of 73% men and 27% women; the average age was 36 years; and the average tenure was 5 - 40 years. Job embeddedness is measured through the multi-item construct developed by Mitchell et al. (2001) consisting of 36 items. Each item was presented in the form of a statement with a seven point Likert scale from 1 (not at all) to 7 (a great extent). The mean of scales of all items in each dimension represent the score for that dimension and mean of all dimensions is the score of job embeddedness. Intention to leave was measured using four items from Hunt, Osborn, and Martin (1981).

Analysis and findings

In order to establish the validity of the job embeddedness scale reliability and construct validity was assessed. Reliability is the degree to which an assessment tool produces stable and consistent results. It is also the overall consistency of a measure. A measure is said to be highly reliable if it produces similar results under consistent

conditions. Cronbach's alpha is the most frequently used measure of reliability. The embeddedness scale consists of three main aspects: link, fit, and sacrifice. In the first step, Cronbach's alpha for the three dimensions of embeddedness was assessed. This was followed by the assessment of Cronbach's alpha score for all the 36 items of job embeddedness scale.

Table 1. Reliability statistics for 36-item job embeddedness scale

Reliability Statistics		
Dimension	Cronbach's Alpha	N of Items
Link	0.738	10
Fit	0.813	14
Sacrifice	0.806	12
Job embeddedness	0.832	36

Hypothesis 1(a) concerned the reliability of the job embeddedness dimensions. In general, the results showed that the reliabilities were acceptable for the three dimensions of job embeddedness. The Cronbach's alpha score for the three dimensions, namely, link, fit, and sacrifice is found to be 0.738, 0.813, and 0.806 respectively (Table 1). The Cronbach's alpha for the 36-item job embeddedness scale is found to be 0.832 (Table 1). A reliability coefficient of 0.70 or higher is considered acceptable in most social science research situations. The alpha coefficients of the job embeddedness scale and its three dimensions suggest that the items have high internal consistency. It can therefore, be concluded that the job embeddedness scale is internally consistent and reliable.

Validity of a scale is the extent to which differences in observed scale scores reflect true differences among objects, on the characteristic being measured, rather than systematic

or random error (Malhotra and Dash, 2010). To assess the validity of the scale inter-item correlation and item-total correlation tests were performed. Inter-item correlation is a measure of convergent validity and item-total correlation is a measure of construct validity of the scale.

Hypothesis 1(b), which stipulated that the three dimensions of job embeddedness show high inter-item correlation, received fairly good support. It can be observed (Table 2) that the correlation between link and fit dimensions is 0.759, fit and sacrifice dimensions is 0.895, and sacrifice and link dimensions is 0.917 which are all significant at the 0.01 level. The correlation matrix (Table 2) shows that the items are related to each other and thus, it can be said that the items have convergence validity. Thus, job embeddedness is measured by three important dimensions: link, fit, and sacrifice.

Table 2. Inter-item correlation between the three dimensions of job embeddedness

Correlations				
		Link	Fit	Sacrifice
Link	Pearson Correlation	1	.759**	.917**
	Sig. (2-tailed)		.000	.000
	N	93	93	93
Fit	Pearson Correlation	.759**	1	.895**
	Sig. (2-tailed)	.000		.000
	N	93	93	93
Sacrifice	Pearson Correlation	.917**	.895**	1
	Sig. (2-tailed)	.000	.000	
	N	93	93	93

** . Correlation is significant at the 0.01 level (2-tailed).

To confirm the validity of the construct and its overall fit, the item-total correlation is done. Hypothesis 1(c) concerns the item to total correlation of job embeddedness scale. Here, it is assumed that the total score for a scale is valid and then the validity of individual items in the scale is tested by measuring correlation between that item and the total score.

Items to total correlation values lower than 0.50 were removed. It can be observed that V4, V5, V12, V21, V24, V28, and V30 have item-total correlation below 0.05. Therefore,

these seven items were dropped from the embeddedness scale for further analysis. Thus, the subsequent job embeddedness scale had 29 items. A reliability test of the 29 item embeddedness scale was performed and it was observed that Cronbach's alpha score of 0.872 was obtained (Table 5), indicating the 29 item scale to be internally consistent and reliable. Thus, hypothesis 1(a), 1(b) and 1(c) received fairly good support. The only exception were the seven items that showed a poor item-total correlation which may be attributed to the contextual differences or sample specific reasons.

Table 3. Item to total correlation statistics

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
V1	125.3333	164.719	0.59	0.588	0.889
V2	126.6667	158.315	0.54	0.681	0.886
V3	125.8333	159.579	0.56	0.899	0.886
V4	125.6667	166.067	0.113	0.791	0.89
V5	126.3333	157.978	0.236	0.811	0.894
V6	125.6667	152.584	0.731	0.823	0.88
V7	127.1667	159.916	0.623	0.693	0.885
V8	126.3333	149.213	0.776	0.791	0.879
V9	127	166.517	0.71	0.777	0.89
V10	125.8333	161.601	0.666	0.61	0.885
V11	126.8333	150.478	0.759	0.591	0.879
V12	127.5	182.949	-0.642	0.541	0.906
V13	127.1667	155.197	0.699	0.612	0.885
V14	126.6667	157.303	0.691	0.812	0.885
V15	126.3333	160.337	0.627	0.563	0.885
V16	125.1667	157.556	0.814	0.671	0.882
V17	125.5	165.421	0.762	0.573	0.889
V18	125.3333	153.596	0.75	0.694	0.881
V19	125.5	155.983	0.674	0.62	0.882
V20	125	159.101	0.733	0.721	0.884
V21	128	177.303	-0.49	0.531	0.901
V22	125.8333	166.32	0.72	0.87	0.892
V23	125.5	145.197	0.841	0.794	0.876
V24	125	163.483	0.211	0.568	0.89
V25	125.3333	158.315	0.801	0.764	0.883
V26	125.3333	156.292	0.6	0.673	0.883
V27	125.6667	150.562	0.836	0.754	0.878
V28	127.1667	157.556	0.218	0.671	0.896
V29	125.5	145.197	0.841	0.734	0.876
V30	127.1667	178.792	-0.452	0.831	0.904
V31	125.1667	166.32	0.617	0.882	0.89
V32	125.1667	157.556	0.814	0.823	0.882
V33	125.3333	151.236	0.884	0.774	0.878
V34	126	150.674	0.916	0.802	0.878
V35	125.8333	158.567	0.62	0.767	0.885
V36	127.5	160.028	0.755	0.799	0.89

Table 4. Reliability statistics for 29-item job embeddedness scale

Reliability Statistics		
Dimension	Cronbach's Alpha	N of Items
Job embeddedness	0.872	29

The results of the present study are in line with the previous findings and provide evidence of generalizability of the embeddedness model. Thus, the job embeddedness scale is reliable and valid and therefore, job embeddedness model can be generalized in the context of Guwahati, Assam.

Impact of job embeddedness on leave intention of employees

Hypothesis 2 dealt with the relationship between job embeddedness and intention to leave. The results showed that leave intention and job embeddedness are highly negatively correlated (-0.996) at significance level 0.01 which basically implies that as the level of job embeddedness increases employees intention to leave decreases.

Table 5. Correlation between job embeddedness and leave intention

Correlations			
		Job embeddedness	Leave intention
Job embeddedness	Pearson Correlation	1	-.996**
	Sig. (2-tailed)		.000
	N	93	93
Leave intention	Pearson Correlation	-.996**	1
	Sig. (2-tailed)	.000	
	N	93	93

** . Correlation is significant at the 0.01 level (2-tailed).

To further test the dependency of leave intention on job embeddedness, linear regression analysis was performed. To determine if the data are fit for linear regression both the variables were put in a scatter plot. Figure 2 shows the scatter plot of job embeddedness and leave intention and it can be observed that a straight line can be fitted through the points.

Linear regression analysis was performed by selecting job embeddedness as the independent variable and leave intention as the dependent variable. Result of the test is displayed in Tables 6, 7, and 8.

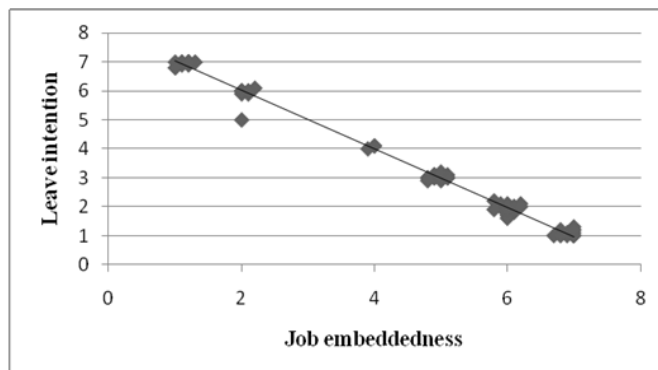


Figure 1. Scatter plot of job embeddedness and leave intention

Table 6. Model summary of linear regression analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.996 ^a	.992	.992	.17186

Table 7. ANOVA table of linear regression analysis

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	351.508	1	351.508	11901.551	.000 ^b
	Residual	2.688	91	.030		
	Total	354.196	92			

a. Dependent Variable: Leave intention

b. Predictors: (Constant), Job embeddedness

Table 8. Coefficients table of linear regression analysis

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.034	.047		170.138	.000
	VAR00001	-1.008	.009	-.996	-109.090	.000

a. Dependent Variable: Leave intention

Table 5 shows that the value of R^2 is 0.992 (greater than 0.7) indicating fitness of the model. Table 6 shows that the significance against the F value (11901.551) is 0.000. It is also seen that the value of constant (a) is ---8.034, whereas (b) is -1.008 and both are returning a significance level, against t test, of 0.000.

This implies that variation in leave intention can be explained with the knowledge of the level of job embeddedness of employees. The R^2 value of 0.992 indicates that approximately 99% of variance in leave intention of the respondents can be accounted for by the knowledge of their level of job embeddedness.

Conclusion and discussions

Traditional models have not been able to successfully explain turnover in organization. Mitchell et al. (2001)

developed the concept of job embeddedness to explain why people stay in their jobs. Although the construct of job embeddedness is new and the literature on the concept is limited, studies have shown that it is a significant predictor of employee turnover in organizations. This study made an attempt to contribute to the embeddedness literature by generalizing the construct in the region of Guwahati, Assam. The Cronbach's alpha score indicated a fairly strong reliability for the scale. Additionally, the inter-item correlations and item-total correlations demonstrated the construct validity of the scale. A partial disagreement has been observed with respect to seven items in the scale which may be attributed to contextual differences or sample characteristics. This research also presents evidence concerning the relationship between job embeddedness and leave intention. The correlation analysis shows that job

embeddedness is negatively correlated to employee's leave intention. Further, the regression model highlights that 99% of the variation in leave intention can be explained by employees' level of job embeddedness.

The concept of embeddedness is gaining a momentum and it is important for managers to understand how to develop embeddedness in their employees. Longitudinal studies may be carried out to fully understand the leave intention and final action of the employees. Future research might also explore the antecedents of job embeddedness. Research may also be directed at exploring the consequences of job embeddedness, apart from leave intention. Additionally, to increase the generalizability of the scale the empirical studies may be conducted across various sectors and regions. Thus, these issues need to be empirically investigated in future research studies.

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Mechanism of Improved Performance: Intrinsic Motivation and Employee Engagement

Tejaswi Bhuvanaiah and R. P. Raya

Abstract

Synthesizing the literature on employee engagement in terms of intrinsic motivation and task purpose, this study provides insights into the critical process of individual's work engagement. Despite the availability of substantial research work in emphasizing the role of engagement in predicting organization desirable outcomes, there is a need for understanding the psychological process that involves while employee engages with the work. Present paper underlines the importance of four key engagement initiatives such as decision making authority, empowering to share ideas and opportunities to develop and utilize employee talent and leadership in driving engagement through a process of motivation.

Key Words : *Employee Engagement, Psychological need satisfaction, Motivation, Job resources*



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Organizations are advancing in a rapid pace through a continuous improvement in technology and business activities in the sophisticated world of information. Adopting a successful path created by the competitors, is not a big challenge but attracting and retaining talented employees is a major issue. In this knowledge era, employees are quite competitive with requisite skills and knowledge. Managing such potential employees is not an easy task, it requires a true effort from, the organizations. In addition, attractive external opportunities with better compensation and incentive benefits lead to an increase in employee expectations to deliver their best performance at current organization. To engage employees for a quality performance output, the shift in focus from financial supplements to psychological fulfilment aspects, is required.

To elaborate on this, a question arises why to engage employees? How do they address the key challenges confronting organizations? An engaged employee is defined

as “someone who feels involved, committed, passionate and empowered and demonstrates those feelings in work behaviour” (Mone and London, 2010, p.17). It is evident from the literature that engagement is a powerful tool in retaining potential employees, reducing absenteeism rate and increasing productivity, profitability and customer loyalty (Gallup, 2013). As a whole, engagement is a theme of contemporary importance for guaranteed business success.

Besides its role in organizational achievement, the growing interest in the concept also unearthed the difficulty in engaging employees. It was reported in *Economic Times* (2014) that only nine percent of employees are engaged with their employers in India. Further with an emphasis on its effect on productivity, stated that “India has employee engagement challenges which are directly impacting the productivity of its workforce.” Therefore, it is imperative to understand the causation behind diminished employee engagement and key engagement drivers that result in persistent productivity. Current study attempts to contribute to the body of knowledge by explaining the role of psychological fulfilment in driving engagement through a process of motivation.

Nature of Employee Engagement

Before moving on to the actual process, it is important to understand the nature of the concept. Employee engagement is identified to be inconstant (Tejaswi and Raya, 2014). Individual engagement with the work role may vary due to multiple unfavourable conditions. Kahn (1990) the first author to introduce the concept of engagement at workplace, explained the variability of engagement levels at two extremes-personal engagement and disengagement.

- Personal engagement refers to “harnessing of organization member’s selves to the work roles. The notion was people integrate with the role physically, cognitively and emotionally by employing and expressing themselves at work.
- Personal disengagement refers to “uncoupling of selves from work roles,” which means people tend to defend themselves to not to integrate with the role.

Later Gallup institution developed a concrete model that explains three levels of engagement. The top most level is:

- ‘Engaged’- Employees who are engaged are passionate, put forth the discretionary effort at work. They are the organization’s most desirable employees, who consistently show innovation and commitment.
- ‘Not engaged’- They are sleep walkers, act as if they were working but actually not. They contribute minimal effort and energy.
- ‘The disengaged’-These employees are the biggest liability for an organization, as they are the unhappiest people who intend to spread their unhappiness to others and cause for decreased employee contribution and satisfaction.

The model also explains that employees who are not engaged may turn into engaged, when management creates the right opportunities and guides them the path to achieve their personal goals. However, disengaged employees no longer benefit organization in any form unless they are retrenched.

Further, the same employee who engages today may not engage in a same extent tomorrow (Tims, Bakker and Xanthopoulou, 2011; Breevaart, Bakker, Demerouti, and Hetland, 2012). The reason behind the fluctuations in daily engagement levels gives us insights into the psychological process. Macey, Schneider, Barbera, and Young (2011) in the process of explaining the distinction between engagement and satisfaction brought out the main ingredient which makes an employee personally feel engaged and also evident to others in the form of behavioural outcome. That is the individual’s positive energy invested to focus, put effort and get completely absorbed into the work. The notion is that engagement is a process that involves in a continuous generation of state and behavioural energy that helps keep employee to connect physically, mentally and cognitively to the task performing. The personal energy needed for employee integration may not remain stable as several factors hinder the physical and psychological wellbeing of an employee such as work pressure, emotional demands, burnout (Bakker and Demerouti, 2014) and necessitates motivating employees to best utilize their personal energy in the form of engagement.

Motivation- Human Behaviour

A closer view of research in the area gives us interesting insights on how motivation plays a vital role in driving engagement. Motivation by virtue of its nature is energising, directive, and consequence oriented (Ryan and Deci, 2000a). The self-determination theory of Ryan and Deci (2000a) and theory X of McGregor (1957), the two macro theories of human motivation assume that people are inherently proactive, energetic and persistent. It is the social conditions around the individuals which result them to be passive and alienated.

Motivation is said to be a non-unitary phenomenon, which means the type of motivation as well as the level of motivation varies (Ryan and Deci, 2000b). Perhaps the fluctuations in the engagement levels may be directly proportional to the variability in motivation. Further self-determination theory explains two types of motivation- Intrinsic and extrinsic. The individual's propensity to achieve something because it is inherently interesting and enjoyable is referred to as intrinsic motivation (Ryan and Deci, 2000b), which means the activity itself acts as a reward without any external drive. When motivation comes from outside the individual, it is referred to as extrinsic motivation.

McGregor's (1957) work underlines the mechanism of motivation. The variability in motivational impact is due to the change in employee expectations. When people seek for external rewards such as monetary benefits, probably extrinsic motivation plays a significant role in driving his/her positive energy. Similarly when people expect for opportunities at work to satisfy their psychological thirst for progressing further such as autonomy and feeling of competence (psychological need satisfaction), intrinsic motivation may take the role (Ryan and Deci, 2000a), Hence it is stated that people get motivated either because they

value the activity or by an external coercion. The three decades of research by Ryan and Deci also identified that the quality of performance and experience improves with employee response to the intrinsic rewards compared to the extrinsic rewards (Ryan and Deci, 2000b).

Psychological Need Satisfaction

Hackman and Oldham (1980) worked on motivational impact of job characteristics on employee goal achievement and stated that psychological need satisfaction has intrinsic and extrinsic motivational potential that fosters employees to meet their goals, in turn, employees may become more committed to their jobs because they derive fulfilment from it. Kenneth (2009) in his book *'Intrinsic motivation at work- what really drives employee engagement'* has given important insights with regard to intrinsic rewards that drive employee engagement. The book emphasises on four intrinsic reward - meaningful work, personal growth, competence, and choice. Employee would get a sense of fulfilment when he/she is assigned with meaningful work activities, when there is an opportunity for choosing the activities of interest, when there is an opportunity to grow personally and feeling of competence from goal achievement which ultimately enhances employee engagement. However, it is important to understand, people and their needs differ. The activity that motivates an individual may not motivate another one (Ryan and Deci, 2000b).

Drivers of Employee Engagement- Motivational Process

As of now the paper highlighted the theoretical literature that shed light on importance of motivation in driving engagement. Let us see some empirical evidences that show motivational potential of organizational factors that result in enhanced engagement levels.

Drivers	Psychological need	Description	Empirical Evidences
Decision Making authority	Sense of involvement, autonomy and valued	Opportunity to make right decision concerning one's own work tap individual to personally accept the challenges involved in the task handling, enable employee to seek best possible solution for resolving a problem. Gives an opportunity to analyse one's own potential. On a whole gives a sense of involvement and valued for the given opportunity.	Tower Perrin (2003); Robinson, Perryman, and Hayday (2004); Sandeep, Mark, Chris, Emma, and Katie, (2008); Lawler and Worley, (2006)
Opportunities for Growth and Development	Sense of competence, Sense of Personal growth	Employees seek for opportunities to learn and update with emerging skills and knowledge. Leadership must understand their aspirations and learning ability there by needs to provide right opportunities to leverage their skills through training programmes, succession planning or managerial development programmes.	Aon Hewit (2013); Lockwood (2007); Aitken, Marks, Purcell, Woodruffe, and Worman, (2006); Tower Perrin, (2003).
Empowerment and Fair treatment	Sense of valued and involved	A supportive work environment with healthy relationships and fair communication is essential for an employee to be involved and take opportunity to outperform the task. In addition, work itself needs to be empowering, management with a provision of right job to a right person with meaningful tasks empower employee to take decisions in handling their work activities which is not a simplest process it requires a supportive mechanism.	DDI (2005); Aitken, Marks, Purcell, Woodruffe, and Worman, (2006); Lockwood (2007); Robinson et al (2004).
Leadership	Sense of purpose	Superior's leadership is found to have motivational and inspirational qualities that drive employee engagement by building a leader member relationship. Particularly transformational leadership shows higher impact on engagement.	Tims, Bakker, & Xanthopoulou, (2011); Zhu, Avolio, and Walumbwa, (2009); Madhura and Deepika, (2014)

Job Resources- Motivation

Findings on various studies on JD-R model give insights into motivational potential of job resources in driving employee engagement. According to Bakker and Demerouti (2007) job resources may intrinsically motivate employees as they foster employee growth, learning and development. Job resources also play an extrinsic motivational role because they are instrumental in achieving work goals. Certain job factors such as workload, role ambiguity and work pressure demand higher effort from employee and leads to physical and mental strain which are found to be diminishing engagement levels. Interestingly job resources such as proper feedback, support, and autonomy are found to be reducing effect of job demands (Bakker, Demerouti, and Euwema, 2005) and also drives engagement through a motivational process (Bakker and Demerouti, 2007).

Conclusion

Thus employee engagement is a concept of contemporary importance. With the exceptional traits, engaged employees lead to a healthy organization as they are satisfied, committed, innovative and highly performing, with optimal physical, mental health. But engaging employees for organizational success is an easier task? No. Is it a one-time achievement? No. Is it impossible to develop a sustainable engaged workforce? No. Engagement is a continuum. It is possible to achieve an engaged workforce with a true effort from the management by facilitating them with right opportunities. People prefer work role that gives psychological satisfaction more than a monetary incentive. Understanding employee preferences and creating a platform to express and employ themselves at work is a major responsibility of management. Once provided, the satisfaction resulted from need fulfilment tremendously motivates employee to engage with task thereby performance.

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Occupational Stress and Leadership Styles: Indian Automobile Industry

Eliza Sharma

Abstract

Current study aims to identify the factors which cause occupational stress among blue collar employees of the Indian automobile industry. Stress has become a part of our fast running life. Stress not only affects the mental health but has also become a reason for many critical diseases like cancer, obesity, heart attack etc. Stress is caused from both personal and professional environment. People spend more than one third of their time at their work places, therefore occupational stress is getting attention to be studied by the researchers. The stress among blue collar employees can directly affect the production capacity of the company which can lead to declining trend of revenues to the company. Thus keeping in view the importance of studying occupational stress, this study has been done. The current study has highlighted the factors which need to be improved for minimizing the occupational stress among blue collar employees. An attempt has been made through current study to determine the relationship between occupational stress and leadership styles. The best leadership style has been identified during the study that can lead to decrease in the occupational stress among blue collar employees.

Key Words : Occupational Stress, Indian Automobile industries, Leadership, Demographic Variables, Job Authority, Growth and career prospects, Blue Collar Employees, Working Environment.



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The term “stress” was first given by Hans Selye in 1936, who defined it as “the non-specific response of the body to any demand for change.” Stress is mainly related to the response of our body to any kind of demand. It can be caused by both good and bad experiences. In a medical or biological context, stress is a physical, mental, or emotional factor that causes bodily or mental tension (Palmer et al., 2003). Stress can be caused due to the external environment like family environment, work environment, social environment or internal issues like illness, or from a medical process. Occupational stress can be defined as the adverse psychological and physical reactions that occur in an individual as a result of their being unable to cope with the demands made on them, (Omolara, 2008). Stress that happens due to a person’s employment is termed occupational stress. The job stress or occupational stress is used interchangeably (Dollard, 2003). Keeping in

view all the above definitions, for the purpose of this study, occupational stress is defined as the harmful emotional (anxiety and depression), physical (insomnia, headaches, and infections), and behavioral responses (job dissatisfaction, low commitment and poor work performance) that occur when work necessities do not match the capabilities, possessions and needs of the worker (Zahir, 2009).

Occupational stress prevails almost in every sector of the economy, whether it is service sector, agriculture sector, or industrial sector. In industrial sector, it is becoming a highly noticeable issue now a days. In automobile industries, blue collar employees are that part of human resource of a company which is considered the most valuable assets of any company as it is the man (human resource) who gives movement to other three M's of the company which are; material, machine and money. Blue collar employees are directly related to the production process. Blue-collar employees are the bases of each and every manufacturing organization across the world. If treated well, blue-collar employees can prove to be a competitive advantage for a firm as the productivity of the workforce determines the success of an organization. This group is more prone to stress as they are less educated, work in strenuous conditions, and belongs to lower income group. Thus it becomes more important for the organization to give more attention in dealing any work related stress of blue collar employees. Occupational stress may be caused due to many reasons. Some of the causes of occupational stress among blue collar employees can be; poor working conditions, work overload, poor leadership, poor interpersonal relationships, role ambiguity, lack of career growth and development opportunities and many more (Zahir, 2009, Cooper et al., 2001). Occupational stress can directly affect the performance of the employees, which leads to decrease in the overall production level of the organization. Less production will lead to fewer profits to the company and can even create a negative image of the company in the market. Thus ultimately it's the organization that will bear the consequences of increased level of stress among its employees in the form of high labour turnover, low group-morale, output and poor labour-relations (Ivancevich and Matteson, 1980). Occupational stress is harmful not only to the organization, but also for the health of the employees

Kyriacou (1989). Northwestern National Life (1991) found that 25% of employees report that their job is the number one stressor in their lives. Work stress is linked to health issues more strongly than any other life stressor, including family issues and financial problems (The St. Paul Fire and Marine Insurance Company, 1992). Living with this stress will take a toll on the employee which in turn will take a toll on the organization through increased burnout, decreased engagement, decreased productivity, decreased retention, and decreased participation (Bryner, 2006; Weaver, 2003). Thus, it is the most important thing for any organization to identify the causes of occupational stress among its employees and to minimize the level of occupational stress. Minimizing occupational stress could be a productive endeavour for organizations. In addition, by identifying some of the factors of occupational stress such as conflict, ambiguity, and overload can help the organizations to better identify when stress is present. Reducing these stress levels through increased engagement will increase productivity and retention of key personnel through the reduction of occupational stress (Caponetti, 2012).

Though there are many reasons for increased level of occupational stress among blue collar employees, as they are more prone to stress because of their socio-economic background and the workplace environment; but the most important reason which is highlighted by many researchers is a leadership style prevailing in the organizations (Kurt Lewin, 1939). Leadership style can be broadly divide into three categories such as; authoritarian style (in which leader makes decision without consulting with its team members), participative style (leaders keep the final decision making authority with them, but they include team members in the decision-making) and delegative style (this style of leadership does not form any control mechanism on his/her group members). Researchers have found positive and significant relationship between leadership styles and level of occupational stress among blue collar employees. Workers operating under supervisor having autocratic approach experience high level of job stress than workers working under a democratic leadership style (Omolara, 2008). Thus identifying the factors in an organization which may lead to occupational stress among blue collar employees, is important for both the organization (in terms of production level) and employees (physical and mental health).

Review Literature

Amir Shani and Abraham Pizam (2009) and Costa et al. (2009) have concluded in their study that work characteristics have a great influence over the occupational stress among hotel employees. Viljoen, J.P. and S. Rothmann (2009), have found in their study that work overload, control, job aspects, work-life balance and pay are the main factors which cause occupational stress. The study also confirmed the negative effect of occupational stress over physical and psychological health. J.E. Agolla (2009) has also found that job related factors and occupational stress are positively related to each other among police officers. Connolly et al. (2009) have also found that occupational stress affects the mental well-being of a person negatively and also affects the job satisfaction. The researcher also finds that working conditions cause occupational stress among employees. Chen et al. (2009) have also found that organizational structure have a direct effect over the occupational stress. Jackson and Rothmann (2006) also have concluded in their study that occupational stress causes ill health. Organizational commitment has a direct influence over the occupational stress. Researchers have also found that leadership styles are also responsible for the occupational stress among employees. Todd A. Ryska (2002) has conducted a study to examine the relation between leadership styles and occupational stress among college athletic directors. The study has concluded that leadership styles have an effect over the emotional exhaustion which leads to job stress and thus also effects the goal accomplishment. Rivera et al. (2014) have analyzed the relationship between leadership styles of the supervisors and burnout in the subordinates. It has been found from the study that leadership has a significant positive relationship with personal achievement and is negatively related with emotional exhaustion and leads to burnout. The study also found that there is a positive relationship between passive style of leadership and emotional exhaustion. Hand, Lynette (2010), has done a study to find out the relation between leadership styles and the stress in the Catholic education system. The study concluded that leadership styles positively related to the capacity to cop with stress and that the gender differences don't affect the stress level of an individual. De Nobile and McCormick (2007), also favored the statement that there is an association between stress and leadership styles. Grimm (2008) and Hui and Cheng

(2006) have found that the leadership styles define the stress level of the workers in an organization.

Keeping in view the harmful effects of increased level of occupational stress and importance of identifying the factors which lead to occupational stress, an attempt has been made through current study to measure the level of occupational stress and factors responsible for the occupational stress among blue collar employees, particularly in Indian automobile industries. The study also aims to examine the relationship between three leadership styles and occupational stress.

Objectives

The main objectives of the study are as follows:

- To identify the factors that causes occupational stress among blue collar employees in Indian automobile industries,
- To measure the relationship between occupational stress and leadership styles, and
- To measure the difference in the level of occupational stress due to different demographic variables of the employees.

Research Methodology

The current study has been conducted for the blue collar employees working in the Automobile companies of Haryana, Punjab, Rajasthan, Uttar Pradesh, and Uttarakhand. The study uses both the secondary and primary data. Secondary data has been used to make a list of automobile companies working in Haryana, Punjab, Rajasthan, Uttar Pradesh and Uttarakhand. Total number of automobile manufacturer in the selected area was 25, out of those we have selected 10 companies randomly. The list of selected companies for the study has been given in Appendix 1 in detail. From each company 75 blue collar employees have been taken for the survey, thus forming a sample size of 750 blue collar employees from 10 automobile companies. The employees have been directly contacted for the purpose of collection of primary data. For the purpose of checking the reliability of the responses given by the employees, the actual working place of the workers has been visited for collecting more information about their working conditions, environment, the problems faced by the employees during their work.

The data has been collected during a period of eight months from November 2014 to June 2015. For the purpose of collecting the data for primary study, two research instruments were needed, one for collecting the information about the occupational stress and second research instruments for collecting the data about the leadership styles prevailing in the company. First research instruments to collect the measure, the level of occupational stress among blue collar employees working in the automobile companies, has been developed using 17 statements, on the basis of review of literature. The instrument has been first tested by doing pilot study, the value of Cronbach alpha came 0.982 during pilot study, thus the same questionnaire was used for the final study keeping in view the high score of reliability and validity of the instrument. All the statements were based on Likert's five point scale from strongly agree to strongly disagree. The mean value of all the 17 statements used in the questionnaire has been taken as the value of occupational stress for the purpose of analysing the data further. Total five categories of the occupational stress has been made such as, very low, low, average, high, and very high level of occupational stress.

Chi square test has been done using these five categories of occupational stress. In order to identify the leadership styles prevailing in the companies, the research instrument developed by Clark Don in 1998 for measuring the leadership styles has been used, which consists 30 statements. The responses of the respondents were recorded using five point scale given by Likert, from strongly agree to strongly disagree. The demographic data of the employees has also been collected through primary survey such as age, gender, dependent members in family, annual salary, family type, marital status, and education. The questionnaire has been coded in Hindi and English language both, keeping in view the level of education of the employees. Data has been analysed using SPSS 20.0.

Data Analysis and Interpretations

The first objective of the study is to identify the factors which cause occupational stress among blue collar employees in Indian Automobile Industries. Factor analysis using Principal Component Analysis has been used in the study. The results of the factor analysis in detail are as follows:

Table1: Results of Cronbach Alpha and KMO Test

Reliability Statistics		
Cronbach's Alpha		No. of Items
0.8967		17
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.795
Bartlett's Test of Sphericity	Approx. Chi-Square	117.640*

*1 per cent significance level.

Interpretation: From the table 1, it can be seen that the value of Cronbach alpha is 0.8967, which is acceptable value as it is above 0.7 and thus the questionnaire is reliable and valid. The value of KMO is also above 0.7, which is acceptable value (Kaiser, 1960) and the value of Bartlett is also significant

at 1 per cent level of significance. Thus the questionnaire is further used for the factor analysis. Total five factors have been extracted using factor analysis. All the five factors and their factor loadings with statements have been shown in the table 2 in detail.

Table 2: Factor Derived Using Varimax Rotation (PCA) Method with Factor Loadings

Factor 1 (Cronbach Alpha=0.834)	Factor 2 (Cronbach Alpha=0.901)	Factor 3 (Cronbach Alpha=0.868)	Factor 4 (Cronbach Alpha=0.849)	Factor 5 (Cronbach Alpha=0.923)
Poor working conditions (0.830)	Job overload (0.792)	Conflict with supervisor (0.742)	Lack of Training (0.715)	Lack of Participation in decision making (0.735)
Lack of Equipment/Tools needed (0.739)	Job Ambiguity (0.711)	Lack of support from supervisor (0.623)	Lack of growth & advancement opportunities (0.543)	Lack of control over the pace of work (0.693)
Excessive workload (0.702)	Mismatch between job requirements and employees' skills and education (0.637)	Poor peer relations (0.567)	Lack of career development opportunities (0.498)	Pint-sized authority or Powerlessness (0.652)
Poorly Shift system (0.689)	Mismatch between job demand & pressure and employees' knowledge & abilities (0.538)			

Interpretation: The factors have been extracted using Varimax rotation method (PCA). The five factors whose Eigen values was greater than 1 have been retained as per the Kaiser criterion (Kaiser, 1960). The above five factors accounts total 89 per cent of variability in the original variable. The Cronbach alpha for each factor has also been calculated and found to be above 0.7 for each of the five factors. The 17 statements used in the questionnaire have been shown under the five factors along with their factor loadings given in the brackets. The statements whose factor loadings were found above 0.40 have been taken. First factor i.e. Working Environment consists of four statements all are related to the working conditions of the employees. The second factor i.e. Job Aspects, consists of four statements, all are related to the job features, job requirements, and education skill

training of the employees. Third factor i.e. Interpersonal Relations, consists of three statements related to the relation of an employee with his supervisor, co-workers and peer relations. Fourth factor i.e. Career and Growth Prospects consists of three statements related to the training opportunities, career development, and growth and advancements opportunities. Fifth factor i.e. Job Authority, consists of statements related to the authority for doing job, participation in decision making and lack of control over the work.

Multiple regression analysis has been conducted to measure the contribution of each of the above five factors in the occupational stress. The results have been shown in table 3 in detail.

Table 3: Determinants of occupational stress among blue collar employees

Independent Variables	Dependent Variable: Occupational Stress		
	Beta	t-value	Sig
Work Environment (Factor 1)	0.723	41.919	.001*
Job Aspects (Factor 2)	0.658	39.440	.002*
Interpersonal Relations (Factor 3)	0.532	39.412	.001*
Career and Growth Prospects (Factor 4)	0.466	26.359	.002*
Job Authority (Factor 5)	0.459	25.607	.000*
Multiple R = 0.863, R Square = 0.795			
ANOVA RESULTS: (F -Test = 113.635, significant level is 1 per cent)			

*1 per cent significance level.

Interpretation: It can be interpreted from table 3 that Work environment is the most important factor, followed by Job aspects factor which affects the level of occupational stress among blue collar employees who are working in automobile industries in India. It can also be seen from the multiple regression analysis that job authority is the least affecting factor to occupational stress. All the five factors have been positively and significantly related with the occupational

stress. Value of r square is found to be 0.795 which shows that these five factors cause variation in the occupational stress around 79 per cent while the rest of 21 per cent of variation in the occupational stress can be assigned to other factors. The model which was developed on the basis of the findings of the factor analysis and multiple regression analysis is given below.

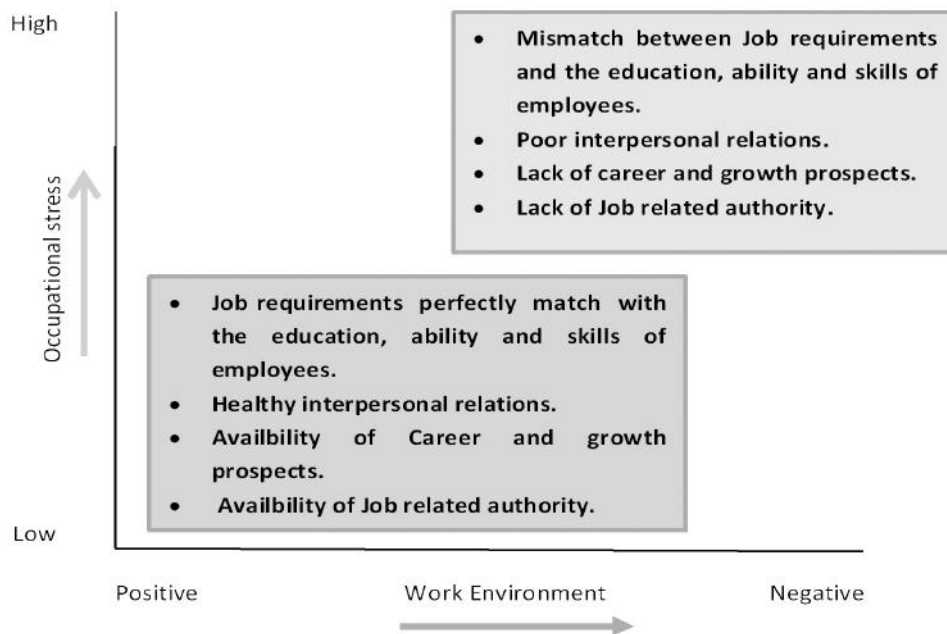


Figure 1: Model for occupational stress developed on the basis of analysis

Interpretation: It can be interpreted from the above model of occupational stress that occupational stress will be low when work environment will be positive and vice versa. When work environment will be positive, job requirements perfectly match with the education, ability and skills of employees, healthy interpersonal relations, career and growth prospects are available, and employees have job related authority, then level of occupational stress among employees will be low. However; negative work environment, mismatch between job requirements and the education, ability and skills of employees, poor interpersonal relations, lack of career and growth prospects, lack of job related authority; all lead to

the high level of occupational stress among blue collar employees.

Second objective of the study is to measure the relationship between occupational stress and leadership styles.

Null Hypothesis 1 (H_{01}): There is no relationship between Occupational stress and Leadership styles.

Chi square test has been used to measure the relationship between occupational stress and leadership styles. Tables 4 and 5 show the cross tabulation of occupational stress and the leadership styles along with the chi square value.

Table 4: Cross tabulation of Occupational stress and leadership styles

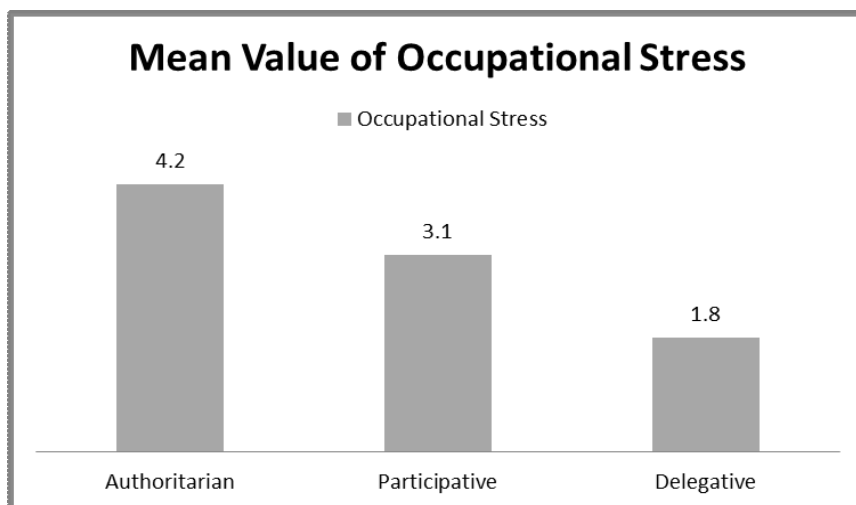
Leadership Styles	Occupational Stress						Total
	Very Low	Low	Average	High	Very High		
Authoritarian	Count	11	30	39	138	127	345
	% within Leadership Styles	3.2	8.7	11.3	40.0	36.8	100.0
Participative	Count	34	47	45	56	34	216
	% within Leadership Styles	15.7	21.8	20.8	25.9	15.7	100.0
Delegative	Count	51	66	18	28	26	189
	% within Leadership Styles	27.0	34.9	9.5	14.8	13.8	100.0
Total	Count	96	143	102	222	187	750
	% within Leadership Styles	12.8	19.1	13.6	29.6	24.9	100.0

Table 5: Results of the Chi-square test

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	35.689	8	0.002
Likelihood Ratio	31.724	8	0.001

Interpretation: It can be interpreted from the table 4 that highest number of respondents with very high level of occupational stress has been those whose leader follows the authoritarian styles of leadership. The respondents for whom lowest level of occupational stress has been measured whose leader follows the delegative style of leadership. However, the moderate level of stress has been recorded for the employees who are under participative style of leadership. Table 5 indicates that there is a significant difference between occupational stress among employees

and the leadership styles prevailing in the company. The value of chi square is found to be significant at 1 per cent level of significance thus leads to the rejection of the null hypothesis which states that there is no relationship between occupational stress and leadership styles. Thus overall it can be interpreted from the analysis that different types of leadership styles affect the level of occupational stress among the blue collar employees of the Indian automobile industry. The Graph 1 below shows the level of occupational stress on the basis of three different types of leadership styles.



Graph 1 - Level of Occupational Stress

Interpretation: Graph 1 shows that the mean value of occupational stress is high among blue collar employees under authoritarian styles of leadership, while the mean value is lowest in the employees who are under delegative style of leadership. The employees under participative leadership style have moderate level of occupational stress.

Third objective of the study is to determine the relationship between occupational stress and demographic variables of the employees. The study aims to examine whether there is a significant difference in the level of occupational stress of employees due to different demographic profile or not.

Following hypothesis has been formulated and tested using chi square test.

Null Hypothesis 2 (H_{02}): There is no relationship between age and occupational stress.

Null Hypothesis 3 (H_{03}): There is no relationship between gender and occupational stress.

Null Hypothesis 4 (H_{04}): There is no relationship between marital status and occupational stress.

Null Hypothesis 5 (H_{05}): There is no relationship between family type and occupational stress.

Null Hypothesis 6 (H_{06}): There is no relationship between number of dependents and occupational stress.

Null Hypothesis 7 (H_{07}): There is no relationship between education and occupational stress.

Null Hypothesis 8 (H_{08}): There is no relationship between earnings and occupational stress.

Table 6: Results of Chi square Test

Demographic Variables	Chi-Square Value	Df	p-value	Acceptance/Rejection of Null Hypothesis
Age*Occupational Stress	42.682	16	0.000*	$H_{(02)}$ - Rejected
Gender*Occupational Stress	5.369	4	1.105 (NS)	$H_{(03)}$ - Accepted
Marital Status*Occupational Stress	35.246	8	0.003*	$H_{(04)}$ - Rejected
Family Type *Occupational Stress	18.943	4	0.001*	$H_{(05)}$ - Rejected
Number of dependents* Occupational Stress	39.589	12	0.003*	$H_{(06)}$ - Rejected
Education* Occupational Stress	58.573	20	0.000*	$H_{(07)}$ - Rejected
Earnings*Occupational Stress	52.182	16	0.002*	$H_{(08)}$ - Rejected

* 1 per cent level of significance.

NS = Not Significant.

Interpretation: The Chi square value of age and occupational stress has found to be significant at 1 per cent of significance, leads to the rejection of the null hypothesis which states that there is no relationship between age and the occupational stress. There is a significant difference in the level of occupational stress of blue collar employees who belong to different age groups. Emotional maturity of the different age groups increases with the age, thus the ability to handle the work stress also is different among employees of different age group. This can be the main reason for difference in the occupational stress of different age groups of employees.

The chi square value of gender and occupation stress is found to be insignificant. Thus the null hypothesis has been accepted. Hence there is no difference in the occupational stress due to difference in their gender. Both male and female workers face same type of work environment, leadership styles, follows the same rules and policies of the company. Thus the occupational stress will be same for both male and female workers in the company.

Occupational stress among blue collar employees differs due to different marital status of employees, the family type they belongs and the number of dependents in the families of the employees. The chi square value has been found significant for these three demographic variables and thus the null hypothesis got rejected which states that there is no relationship between marital status, family type and number of dependents and the occupational stress. The marital status affects the stress level of an employee, because married employees have more responsibilities than unmarried employees. Similarly as the number of dependents in the family increases the responsibilities of the employee also get increased. These all lead to more stress from external sources other than their occupation. The stressful personal life situation decreases the capacity of the employee to bear more stress from their occupation and thus affects the level of occupational stress. Different family type such as, nuclear or joint family also affects the occupational stress of the employees. The persons who belong to joint family have their family members to take care of their children while they are at work, even the emotional and financial support is also higher in case of joint family. Thus the family type also affects the stress managing ability of the employees at work.

Education level of employees and the earnings of an employee affect the occupational stress. Significant relationship has been found between education, earnings and occupational stress. Education makes a person more aware about the surroundings, more expectations from the organisation, and when a person does not get the job profile that actually meets his expectations, skills, education level, stress level increases. An educated person knows his worth very well. While an uneducated or less educated person will be ready to do any work for the sake of getting money whether that job profile suits his skills or not. Similarly the earnings of the employees affect the occupational stress, if a person is underpaid or not paid according to his job then the stress may get increased.

Conclusion

It can be concluded that in Indian automobile industries there are mainly five factors (working environment, job aspects, interpersonal relations, growth and development prospects, and job authority) that cause occupational stress among blue collar employees. The level of occupational stress is high where the leaders follow authoritarian style of leadership while the level of occupational stress is found less where leaders follow the delegative style of leadership. Overall occupational stress has been found to be very high among the blue collar employees in automobile companies. This study is relevant for the middle level managers and lower level managers, who make the strategies, rule and regulations for the blue collar employees in the company. The study highlights the factors which are highly responsible for causing occupational stress among the employees. By improving these factors or making some strong strategies for these factors, the level of occupational stress can be minimized. The managers should try to improve the working environment of the company as it is found as the highest contributing factor in occupational stress among blue collar employees. The study also highlights the fact that leaders should follow participative or delegative style of leadership to reduce the level of occupational stress among blue collar employees. Therefore, productivity of the employees can be increased which will improve the performance of the company. The study has some limitation as well. The study is limited only to automobile companies; companies from other industrial sector can also be included to have more in depth study of this area.

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Appendix 1

S.N	State	Region	Company	Type of Vehicle
1	Haryana	Dharuhera	Hero Honda	Two wheelers
2	Haryana	Gurgaon	Harley-Davidson India	Two wheelers
3	Haryana	Gurgaon	Hero Honda	Two wheelers
4	Haryana	Faridabad	India Yamaha Motor Private Limited	Two wheelers
5	Haryana	Manesar	Honda	Two wheelers
6	Haryana	Gurgaon	Suzuki	Two wheelers
7	Haryana	Gurgaon	Maruti Suzuki	Passenger vehicles
8	Haryana	Manesar	Maruti Suzuki	Passenger vehicles
9	Punjab	Nawanshahar	SML Isuzu Limited	Commercial vehicles
10	Punjab	Hoshiarpur	International Tractors Limited (Sonalika Group)	Farm Tractors & Agri Equipments
11	Rajasthan	Tapukara	Honda Cars India	Passenger vehicles
12	Rajasthan	Alwar	Ashok Leyland Limited	Commercial vehicles
13	Rajasthan	Alwar	TAFE Tractors	Commercial vehicles
14	Rajasthan	Neemrana	Hero MotoCorp	Two wheelers
15	Rajasthan	Tapukara	Honda	Two wheelers
16	Rajasthan	Jaipur	Mahindra & Mahindra	Farm Tractors
17	Uttar Pradesh	Surajpur	India Yamaha Motor Private Limited	Two wheelers
18	Uttar Pradesh	Greater Noida	Honda Siel Cars India	Passenger vehicles
19	Uttar Pradesh	Greater Noida	New Holland Agriculture / CHN	TACTORS
20	Uttar Pradesh	Lucknow	Tata Motors	Commercial vehicles
21	Uttarakhand	Haridwar	Hero Honda	Two wheelers
22	Uttarakhand	Pantnagar	Bajaj Auto	Two wheelers
23	Uttarakhand	Pantnagar	Ashok Leyland	Commercial vehicles
24	Uttarakhand	Pantnagar	Tata Motors	Commercial vehicles
25	Uttarakhand	Haridwar	Mahindra & Mahindra	Commercial vehicles

Detailed list of manufacturing companies of automotive vehicles in Haryana, Punjab, Rajasthan, Uttar Pradesh and Uttarakhand, the companies highlighted have been taken for the purpose of the current study.

Individual Creativity: Influence of Job Autonomy and Willingness to take Risk

B. Sripirabaa and Sudha Maheswari T.

Abstract

In the present era of hasty change, organizations are facing greater demand from their environment to engross in innovative behaviours to create and deliver their products and/ or services to stay competitive, and to lead the change process itself. Innovation is widely claimed to have beneficial influences on the effectiveness and long-term survival of the organizations. In order to accomplish competitive environment successfully, organizations depend on their employee's creativity, since it is the basis of innovation process in the organisations. Hence this study attempts to explore the factors that facilitate individual creativity of employees at the work place. Accordingly through literature reviews the study identified Job autonomy, Challenge, Openness, Playfulness, Conflicts, Debates, Supportive environment, Sufficient resources, Creative climate and Willingness to take risk as the factors that nurture individual creativity. Among these factors this study has considered Job autonomy and Willingness to take risks and has investigated the influence of these two factors on Individual creativity. The study is descriptive in nature and has adopted survey strategy. The study used data collected from 212 respondents working in auto component manufacturing organizations in Coimbatore District. The collected data has been analysed using correlation and regression analysis. Results reveal that Job autonomy is a key factor that nurtures individual creativity more.

Keywords : Individual creativity, Job autonomy, Willingness to take risk, Innovation.



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Innovation is always seen as a stimulant factor which can make good companies great. It's not just invention but also the style of corporate behaviour that encourages employees to come out with new ideas and also to take risk. Growing competition, globalization of companies and businesses, and the nonstop changes in the market and technologies are empowering companies to think about different ways and strategies to gain competitive edge in the market place. Innovation is being considered by companies as one of the methods to gain competitive edge and organizational success. According to Heye (2006) innovation refers to the "implementation or transformation of a new idea into a new product or service, or an improvement in organization or process." Hence, there is an increasing attention to innovation, which is a way to respond to the worldwide competition and pressures from the environment.

Schumpeter (1997) strongly believes that the concept of innovation, described as the use of an invention to create a new commercial product or service, is the key force in creating new demand and thus new wealth. Successes in business today demand untiring innovation. Generating fresh solutions to problems and the ability to inherit new products or services for a changing market are part of the intellectual capital market that gives an enterprise its competitive edge. In a dynamic environment, success comes from looking for the next opportunity and having the ability to find hidden connections and insights into new products or services, desired by the customer.

Need for Innovation and Creativity

The globalization of the world's economies challenges organizations with an increasingly competitive, hasty change, and turbulent environment (Mumford et al., 2002; Maria and Mariano, 2012; Stefan et al., 2012). Innovation in this context is vital since organisations desire to grow, keep up with competitors, and adapt to changing customer needs (Porter 1990; Amabile and Conti, 1999; Marja and Welco, 2009). In such times of change, the ability to innovate is seen as a crucial determinant of organizational performance in terms of growth, competitiveness, and even survival (Amabile, 1988; Kanter, 1988; Janssen et al., 2004). Innovation is the backbone of a country in all aspects. Especially, for a developing country like India, innovation has taken an imperative character. As a developing country, India needs to increase the economic level of the country and it can be accomplished through "Innovation" in governing structure, policies, practices and also in the products and services that are manufactured and rendered by the organizations.

Without creativity innovation will not happen. Amabile et al. (1996) strongly stated that all innovation begins with creative ideas. To add on their view Maria and Mariano (2012) explains that creativity is an ingredient for innovation. The most efficacious organizations will have an environment where creativity and innovation are befalling unfailingly at all levels of the organization, and in all functions (Deepa and Nicholas, 2012). By reviewing these statements it can be concluded that Innovation and Creativity are inseparable terms which are needed for the organisations growth. Deepa and Nicholas (2012) argued that rapidly changing business set-ups and highly competitive markets have enforced companies to diagnose the need to innovate and be creative. Bearing this in mind Anderson et al. (2004) emphasises the importance of organizational innovativeness for both firms

and economies and hence research on the facilitators of innovation has flourished over the last two decades. Organisations can accomplish their goals without any hurdles only when their employees are creative.

Literature Review

Individual creativity

Employers+ Employees = Organisation. As discussed in the introduction part, creativity and innovation involves the life of the organisation and employees and employers play the main role since they are the people who take the creativity and innovation to realistic products and services. Ultimately individual creativity will contribute to the innovation and creativity process of the organisation. In support of the above statement Han et al. (1998) explains, Innovation as an increasingly important management function to ensure a firm's growth. However, firms need creative employees to initiate organizational innovation. Not surprisingly, employee creativity is recognized as the key for generating a competitive advantage (Shalley et al., 2004). Similarly, Mark and Scott (2009) explains, organizations are constantly searching for original and appropriate solutions to problems, and as individuals are the makers of creative ideas. To add on to the above study by Prahalad and Hamel (1990) emphasize that due to the essential and hasty technological, cultural, demographic, and economic changes in our knowledge-based economy, employee creativity has become progressively more pivotal challenge for organizations. Organizational creative theorists (e.g., Scott, 1995; West, 1990) have argued that individual's creativity is important in itself and can be conceptualized as a necessary first step or precondition required for innovation and creative employees are critical in order to enhance the creativity in organizations (Maria and Mariano, 2012).

An organization's ability to be innovative or creative depends on its employees and their creative potential. To add on above statement Florida et al. (2005), Deepa and Nicholas (2012) state, they are the ones who discover new technologies giving upsurge to powerful economic growth. Thus, one can reason that an individual's creative potential forms the base for an organization's creative capital. Creativity exhibited by individuals within the organization is often in response to finding solutions to organizational problems. All innovation begins with creative ideas. Successful implementation of new programs, new product introductions, or new services depend on a person who

creates good ideas (Amabile et al., 1996). Therefore, it may be fruitful to concentrate on individual creativity. Innovation is imperative to organizational survival and success and individual creativity is critical to organizational innovation. Management must ensure that the organizational environment is conducive in enhancing the individual creativity.

There are many factors which influence the creativity of employees at work place. Several authors have brought out the significant factors which influence the creativity of employees; Job Autonomy (Naqvi et al., 2013), Supportive Environment (Valentine et al., 2011), Innovative Climate (Amabile, Conti, Coon, Lazenby, and Herron, 1996; Ekvall, 1996; Tesluk, 1997; Anderson and West, 1998), Intrinsic Motivation (Deci and Ryan, 1985; Ryan and Deci, 2000), Innovative Self-Efficacy (Choi, 2004; Flora et al., 2012), Fun at Work (Alexandra, 2005), etc. From the above factors this study has taken two important factors namely Job Autonomy and Willingness to take risk as the factors that promote employee creativity.

Job Autonomy

Freedom is indispensable for a common man to run his daily life. In the organisational point of view, freedom also termed as Job Autonomy (in the organizational context) is essential for an individual employee, even to do his routine work. Hackman and Oldham (1975) defined autonomy as “the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out” (p. 162). In terms of creativity, freedom (Autonomy) is unavoidable since it will stimulate employee creativity (Pelz and Andrews, 1976; Bailyn, 1985; Amabile and Grysiewicz, 1989, 1996; Oldham and Cummings, 1996; Kristina and Audrone, 2006).

Kristina and Audrone (2006) explain that numerous job aspects influence an individual’s work outcomes. One of the most vital aspects is job autonomy, which refers to the degree of discretion employees have over significant decisions in their work (Hackman and Oldham, 1980). This aspect has been identified as a significant feature of work design for employee outcomes (Baek-Kyoo et al., 2010). Studies have suggested that giving autonomy to individuals is expected to encourage higher motivation, satisfaction, and performance in a variety of settings (eg., Fried et al., 1999; Troyer et al., 2000; Van Yperen and Hagedoorn, 2003) which will boost up the employee creativity. Various researchers (eg. Barron and Harrington, 1981; Ekvall, 1983;

Bailyn, 1985; Woodman et al., 1993; Amabile et al., 1996; Oldham and Cummings, 1996; Judge et al., 1997; Kristina and Audrone, 2006; Paul and Peter, 2007; Tuan and Venkatesh, 2010) identified that Autonomy is essential for individual creativity and they found positive relationship between individual creativity and Autonomy.

Creativity is fostered when employees have legitimately high level of autonomy to do their work and a sense of ownership and control over their own work and their own ideas (Paolillo and Brown, 1978; Bailyn, 1985; King and West, 1985; West, 1986). According to Amabile and Gitomer (1984), employees harvest more creative work when they perceive themselves to have freedom in how to go about achieving the tasks that they are given. In line with the above statement Giugni (2004) discussed four components of climate which influence the creativity of employees in which one of the essential factors is Autonomy. Amabile and Grysiewicz (1987) suggest that increased autonomy permits individual’s freedom from rigid work rules and the capacity to follow novel thoughts.

Willingness to take Risk

“No risk, No gain” this is a universally known proverb. Risk taking is about taking process one step ahead. In the process of innovation and creativity, risk taking is important and unavoidable (Cummings, 1965; Hage and Dewar, 1973; Kimberley and Evanisko, 1981; Ettl, 1983; Ekvall, 1983; Kanter, 1983; Deci and Ryan, 1985; Mumford and Gustafson, 1988; Nystrom, 1990; Woodman et al., 1993; Utman, 1997; Bertrams, 1999; Zhou, 2003; Kristina and Audrone, 2006; Tuand Lu, 2012), since it includes uncertainty of results. Further, new ideas are risky because they represent disturbances in routines, relationships, power balances, and job security (Albrecht and Hall, 1991).

Todd (2002) states that, new ideas represent change from the established order and invite evaluation and offer potentially negative consequences for the employee offering the idea. It is difficult for us to separate ideas from the people that create them, thus to offer ideas is to put oneself at risk (Albrecht and Hall, 1991). Many researchers (eg. Koberg and Chusmir, 1987; Amabile et al., 1997; McLean, 2005; Kristina and Audrone, 2006; Parzefall et al., 2008; Karun and Goman, 2012) claim that risk taking will positively influence individual creativity. For example, Amabile’s (1988) qualitative research among a sample of R&D scientists tinted the role of risk orientation in the promotion of creativity. Likewise, Michael (1979) and Glassman (1986) claim that highly

creative people often have a high propensity for risk-taking. These researchers statement has brought out the relationship between creativity and risk taking.

Todd (2002) explains that, focus on the risk in creative performance is well justified and has deep roots in management occurrences. For example, according to Deming (1986), one vibrant prescription for victory is to push out fear and take risk. Pfeffer and Sutton (2000) states that fear ruins a crucial tricky problem in many workplaces, which complements the statement by Deming (1986). Their research highlighted the “knowledge-doing gap” in organizations. There they found big gap between employee’s knowledge and their performance. This is due to several obstacles, fear being among the most vital of these obstacles. Todd (2002) states that, employees will not act on creativity based on the knowledge they possess if they fear that they will be punished for doing so. Though there are a number of factors that influence the individual creativity of employees. This study considered two factors namely Job Autonomy and Willingness to Take Risk that influences the individual creativity of employees.

Objectives of the Study

- To find out the level of Autonomy, Willingness to take Risk and Individual creativity among the employees.

- To identify the influence of Autonomy and Willingness to take Risk on Individual creativity.

Methodology

The study is descriptive in nature and adopted survey strategy. A questionnaire survey method was used to seek responses from technical employees working in Automotive component manufacturing companies registered under ACMA (Automotive component manufacturing association) in Coimbatore, India. Since the automobile sector has seen consistent growth and innovation and creativity is the key for remaining competitive in the market, the study choose automobile sector. The study used data collected from 212 respondents working in 9 auto component manufacturing organizations in Coimbatore District. The data were collected during the months of January and April, 2015 and all questionnaires were usable. Each response was measured using a five-point Likert scale, ranging from 5 “strongly agree” to 1 “strongly disagree.”

Using a preliminary draft questionnaire, a pilot study was conducted with 40 employees from three companies; these responses were excluded from the final study. Reliability of the variables were ensured by examining the Cronbach’s alpha (α) coefficient with an alpha value of >0.7 considered to be acceptable (Nunnally, 1978). All the variables had an α value of >0.7 ensuring reliability of the variables.

Table 1: Measures Used

Constructs	Number of Items	Cronbach’s alpha	Author
Job Autonomy (JA) -	6	0.918	GoranEkwall (1996)
Willingness to take risk (WR) -	6	0.510	GoranEkwall (1996)
Individual creativity (IC) – is the ability of an employee to be creative and also help his colleagues in being creative	15	0.731	Dhas and Dollinger (1998)

The collected data was analysed using percentage analysis to portray the demographic profile of the respondents. Descriptive statistics to identify the significant factors that employee attached more importance in constructs Job Autonomy, Willingness to take Risk and Individual Creativity. Correlation and Regression analysis was performed to find the influence of the factors Autonomy and Willingness to take Risk on Individual Creativity.

Analysis and Discussion

Profile of the respondents

50% of the respondents are between 26-35 years of age, 24.8% are below 25 years of age and 5.8% are between 46-55 years and the rest above 55 years, indicating that majority of the respondents are below 35 years of age representing the young workforce. 86.5% are male, 53.8% are married, and 46.2% are engineering graduates. 42.3% of the respondents are in the middle level and 53.8% of the respondents have experience below 5 years.

Table 2: Descriptive Statistics

Factors	Items	Mean	Std. Deviation
Job Autonomy	Carry out work in prescribed ways	4.33	0.872
	Make choices about own work	4.23	1.122
	Freedom to define own work	4.33	1.089
	Option to schedule day-to-day activities	4.38	1.096
	Share information about work with colleagues	4.23	1.104
	Work in strict guidelines and rules	4.15	1.065
Willing to take Risk	Put forward a new idea	3.63	.943
	Tolerate uncertainty when making decisions	4.04	.878
	Venture into unknown territory	3.08	1.091
	Venture on my ideas	3.27	1.078
	Be on the "safe side"	2.85	1.394
	Tendency to protect myself	2.98	1.280
Individual creativity	Suggests new ways to achieve goals or objectives	4.02	1.048
	Propose new ideas to improve performance	4.13	1.094
	Suggests new ways to increase quality	4.13	1.163
	Source of creative ideas	4.10	1.116
	Not afraid to take risks	4.06	1.111
	Promote my ideas to others	4.12	1.033
	Exhibit creativity on my job	4.17	0.977
	Have new and innovative ideas	4.08	0.979
	Come up with creative solutions to problems	4.33	1.071
	Fresh approach to problems	4.04	1.118
	Suggest new ways of performing work tasks	4.23	1.051

Table 2 presents the Mean values for the individual items of the three constructs considered for the study. It is inferred that the mean value for all the items in the constructs Job Autonomy and Individual creativity are greater than 4 which implies that the employees have perceived that they have freedom at work and also freedom (M=4.33) to exhibit creativity in their work and are confident that they are creative in their work and perceive themselves as a creative person.

Items Willingness to take risk has six items. Among them 2 items ie: "I try to be on the safe side (M=2.85)" and "I have a tendency to protect myself in many ways (M=2.88)" have mean value less than 3 which implies that employees come forward and try new things than being on the safe side. This could be due to the good relationship they have with supervisors and management and the support and encouragement received from them.

Table 3: Analysis of Variance

Factor	ANOVA											
	Age		Gender		Marital status		Education		Designation		Experience	
	F	Sig	F	Sig	F	Sig	F	Sig	F	Sig	F	Sig
Job Autonomy	1.518	.197	18.531	.070	.123	.930	18.331	.090	3.640	.067	3.507	.066
Willingness to take risk	1.859	.117	11.297	.001	3.065	.081	6.564	.073	5.469	.005	5.162	.256
Individual creativity	5.112	.001	1.866	.173	7.481	.059	12.626	.066	2.842	.060	5.839	.420

Analysis of Variance shows that there is significant difference in the perception of the respondents of different age groups with respect to Individual Creativity ($F=5.112$, $p<0.001$); for Willingness to take risk among male and female respondents ($F=11.297$, $p<0.001$) and respondents of varied designation ($F=5.469$, $p<0.005$).

Post hoc analysis was carried out for to find out which category of respondents varied in their perception compared to others.

Respondents of the age groups below 25 years ($M=3.8811$) and 25-35 years ($M=4.0524$) have a similar perception compared to respondents between 36-45 years ($M=4.5844$), 46-55 years ($M=4.2424$) and above 55 years ($M=4.3636$) for the factor Job Autonomy. This could be due to the reason that people above 35 years perceive that they have Job Autonomy compared, since the experience that they have gained over the years in the current organization and earlier experiences have helped them understand and appreciate the autonomy that the organization has given them and enjoy the same compared to youngsters.

Female respondents are less willing to take risk ($M=3.7381$) compared to their male counterparts ($M=4.3593$). This is since male respondents by nature are adventurous and their risk taking ability is high. Female normally think a lot before doing any activity and prefer to be on the safer side and are moderate risk takers or risk averse.

There is a significant difference in the perception among respondents of varied designation for the variable Willingness to take risk. Post hoc results revealed that Middle Level ($M=3.9959$) and Junior level ($M=4.1244$) are less willing to take risk compared to Executive level ($M=4.3140$) employees. Further, since junior level people seek more developments in their position and hence willing to take high risk compared to middle level executives and this attitude triggers them to take more risk in their job. The higher the level employees move in the organization, the higher will be the risk taking ability. This is due to the virtue of their job and hence mean value is highest for the group.

Correlation analysis was carried out to find the association/relationship between the constructs.

Table 4: Correlation

		JA	WR	IC
Job Autonomy	Pearson Correlation	1	-.108	.742**
	Sig. (2-tailed)		.058	.000
Willingness to take risk	Pearson Correlation		1	-.087
	Sig. (2-tailed)			.125
Individual creativity	Pearson Correlation			1
	Sig. (2-tailed)			

Among the two factors considered in correlation analysis with Individual creativity, Job autonomy is highly correlated with Individual creativity ($r=0.742$; $p<0.000$) and the

correlation is significant. This implies that employees place more value on Job Autonomy, since for doing any kind of job, freedom is needed; especially for doing a creative work,

freedom is more vital. Willingness to take risk is negatively correlated with Individual creativity ($r=-0.087$; $p<0.125$) and is not statistically significant, which may be due to the fear of the consequences of failure.

Regression analysis was performed to find out the extent of influence of the factors on the Individual Creativity of the employee. Individual creativity was taken as dependent variable and Job Autonomy and Willingness to take risk were taken as independent variables and step wise regression was carried out.

Table 5: Regression Analysis Model Summary

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R Square	Adjusted R Square	F, Sig.
	B	Std. Error	Beta					
Constant	.937	.166				.551	.549	380.060, $p<0.001$
Autonomy	.742	.038	.742	19.495	.000			

Regression results revealed that F-Test was statistically significant ($F=380.060$, $p<0.001$), which indicates that the model is statistically significant. The adjusted R square value of 0.549 indicates that 54.9% of the variability in Individual Creativity is predicted by the independent variables. Among the two independent variables Autonomy and Willingness to take Risk, Job Autonomy has an influence of 74.2% on the dependent variable Individual creativity ($\beta = 74.2\%$ positive, $t = 19.495$ positive, $p < 0.001$).

This result reveals that for an effective Individual Creativity, organisation should provide Autonomy to do their job in terms of the freedom to define the way they would like to work and schedule their work. Until and unless freedom is given, employees cannot try new processes and work practices and exhibit their creativity at work.

Conclusion

Innovation process is an essential and vital step in company's growth. Innovations make the difference, offering companies an important competitive advantage in domestic as well as foreign markets. Employees' creativity can catalyse the growth and development of organizations since it helps them stand out and head of their competitors. Among the two important factors considered for the study Job Autonomy and Willingness to take risk, this research identified one important factor namely Job Autonomy that advances the creativity of employees. The results of the study reinforces that organisations should provide Autonomy at work so that employees exhibit their creativity

in their work, but the limits need to be defined. Too much autonomy without responsibility might lead to no desired outcomes. No doubt, the current economic environment is a volatile and violent one. The new environment stresses renewed dynamism of approach. Innovation is the key for this game to begin. Only agile organizations can manage the changes in the new environment. It is the duty of the organisations to keep organization lean, young, flexible, and looking forward for new things to continuously delight the customers, which is the purpose of every business. This result can be used by the management to make a keen eye on individual employees' freedom. As an organisation they can make the healthy environment which can enrich employees' creativity.

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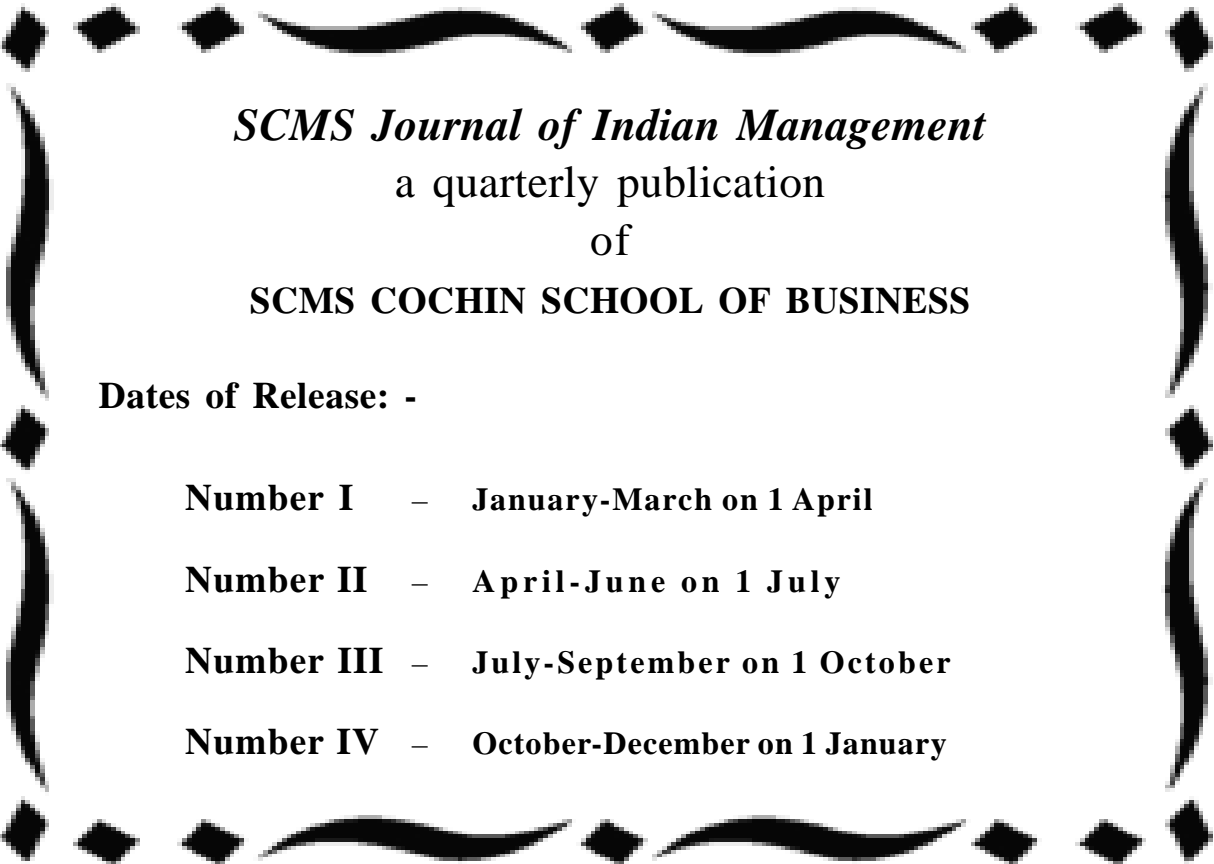
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