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THE STRAITS OF SUCCESS IN A VUCA WORLD

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ABSTRACT:

VUCA as an acronym for Volatility, Uncertainty, Complexity and Ambiguity is fast becoming a catchphrase in the corporate world and is a hot topic in the present circumstances. Today's adaptive leaders are making use of this acronym too often during their strategy meets. Economic turbulence and the drastic rate of change in our business environment are throwing quite a few organizations as well as their leader's off-balance as they are finding it very difficult to keep pace with the vagaries of VUCA world. In a 'VUCA world,' both pundits and executives have said that basic fundamental activities essential to driving organizational performance like strategic planning are merely viewed as exercises in futility. The Harvard Business Manager Blog titles their VUCA article as "The Age of Jugglers". In these times, past and present achievements do not always translate into successes. As business expert and former German DAX-company executive Stefanie Voss puts it across, "it's becoming increasingly difficult to keep all the balls in the air." Companies, whether small or big are facing a host of new challenges. The world is becoming more complex and volatile and these conditions make the short-term decisions extremely difficult. Transparent markets and a fast pace creates high pressures at workplace. This paper is an attempt to analyze and discuss the straits to success in a VUCA environment.

Keywords: VUCA, leadership, uncertainty, volatility

INTRODUCTION

VUCA is an acronym that has recently found its way into the meeting rooms of corporates. Various components it refers to - volatility, uncertainty, complexity and ambiguity are what have been used to describe an environment that defies standardized diagnosis and is generally expected to befuddle the executives. In a 'VUCA world, both the strategy planners and ones who execute the same say that the core activities essential to driving organizational performance, like strategic planning are viewed as mere exercises in futility. VUCA conditions render useless any efforts to understand the future and to plan the responses accordingly.

Notion of VUCA was introduced by the U.S. Army War College to describe uncertain, complex and ambiguous conditions that resulted from the end of Cold War. We are moving from a world of problems that demands speed, analysis and uncertainty to solve the dynamic problems that do demand patience, sense making and an engagement with uncertainty.

VUCA factors are the characteristics of modern strategic dilemmas that require a different orientation and a varying set of skills.

Dilemmas span disciplines and frustrate attempt to craft elegant and final solutions. According to VUCA if we wait too long for a moment, it may pass without our knowledge. It is the recognition that there can be many ways beyond hand a competitor of its advantage. Management's version of the use of Special Forces is an effort to switch from a hierarchical into a modular form of organization. Thus, shifting of agency from the executive committees to self and proxies is a tendency to form partnerships that verges on the indiscriminate. In this turbulent business environment, HR managers must apply VUCA model as a framework to develop leaders. The current paper focuses on the straits to success in a VUCA world.

OBJECTIVES OF THE STUDY

1. To understand and understand VUCA environment

2. To identify the keys to success in VUCA environment
3. To study the role of leadership in VUCA environment

REVIEW OF LITERATURE

Anita Sarkar (2015) views that the ways in which we conduct or think about our businesses have substantially changed within a decade. Rapid changes taking place in political, economic, social and technological fronts are making the organizational world increasing VUCA. Harish Manwani (2013) observes that we are living in a world where volatility and uncertainty have become the standard norm. Companies that were synonymous with their product categories just a few years ago are now no longer in existence. But even with this unpredictably changing world, there are a few important underlying megatrends that will shape our future.

Kishore Kumar Das & Aftab Ara (2014) finds that we are moving from a world of problems, which demands speed, analysis and uncertainty to solve, to a world of dilemmas, which

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demands patience, sense making and an engagement with uncertainty. The characteristic of modern strategic dilemmas requires a different orientation and a set of skills. Dilemmas span disciplines and frustrate attempts to craft elegant and final solutions.

Betof, Lisa M.D. Owens, Sue Todd (2014) observes that the once identifiable boundaries of our marketplaces and industries have become permeable. Now they shift continuously, sometimes slowly, sometimes quickly, but always feeling slightly beyond our grasp. In this environment, leaders realize that a sustainable future is only possible if organizations can sense, adapt, and respond to change; if they can help their organizations evolve with an evolving world.

Nick Petrie (2014) observes that It seemed that the nature of the challenges that managers were facing was rapidly changing; however, the methods that we were using to develop them were staying the same. The previous decade has seen many industries enter a period of increasingly rapid change of external environment.

THE VUCA WORLD

The once identifiable boundaries of our marketplaces have become permeable. Now they are shifting continuously, sometimes slowly, sometimes quickly but always feeling slightly beyond our grasp. In this environment, leaders realize that a sustainable future is possible only if organizations can sense, adapt and respond to the ever occurring changes; if they can help their organizations evolve with an evolving world.

Thriving in this VUCA world means adapting as new business contexts emerge. For leaders, it means:

- creating an environment of openness that values discovery, diverse perspectives and experimentation

- unpacking business challenges to reveal the learning gaps for individuals, teams, and the organization's practices, processes, and systems
- conducting iterative dialogues that put new ideas into the context of the company's work, and translate new information into differentiating capabilities
- detecting the weak signals that foretell shifts in customer loyalty or opportunities enabled by new technology

The VUCA world encompasses four similar-sounding yet strikingly distinct challenges that deserve a special mention here:

Volatility: The nature, speed, volume, magnitude and dynamics of change. The situation is unstable and may be of an unpredictable duration. However, it is not an unanticipated situation as knowledge about a similar challenge was already predicted. For instance, a share price fluctuation for an organization following a change in its leadership, or after an internal scam has been exposed.

Uncertainty: The lack of predictability of issues and events. Despite the lack of much information, the basic causes and likely effects of the event are known and the outcome generally results in a substantial change. For instance, the sudden launch of a similar, yet superior, product offering by a close competitor.

Complexity: The confounding of issues and the chaos associated with this. Some information regarding the nature of complexity is available or can be predicted. However, the sheer volume and the nature of the problem could prove to be overwhelming. For instance, the unique tax and regulatory environments, tariffs and cultural expectations associated with doing business in several countries.

Ambiguity: The haziness of stark reality! Herein, the causal relationships are unclear. The situation is unprecedented and one must brace himself to face the unknown. For instance, you decide to enter uncharted territory by exploring immature or emerging markets or launch products out of your core competency/ comfort zone.

So, the obvious question emerges: is it really possible to prepare for a VUCA world? Well, it certainly is. Applying critical thinking in order to better tackle apparently challenging situations and make well-thought-through decisions in a VUCA world is the answer you're looking for.

CRITICAL THINKING

This can be very simply defined as "how to think" instead of "what to think". Here are a few critical thinking pointers that you could use to tackle the sheer dynamism of a VUCA world:

For volatile situations Separating facts from opinions is the key. So is formulating thoughts objectively and precisely as well as ensuring clarity in communication.

For uncertain situations Listening and comprehension is vital. Being open-minded about alternative points of view and dealing with contradiction are also necessary in such situations.

For complex situations One needs to gather facts from various sources do logical enquiry and reasoning and also weigh the alternatives. Weighing alternatives, making decisions under pressure and testing the solutions against relevant criteria are also vital.

For ambiguous situations Curiosity; eliciting and evaluating arguments; asking the right questions; adaptability and agility in thinking as well as seeing the consequences and likely implications are essential in such circumstances. Quite simply, critical

thinking is excellence in thought processes which precedes excellence in our actions.

THE ANTIDOTE–VUCA PRIME

VUCA prime proposes that volatility can be combated by having a clear sense of vision. When things are changing rapidly, people need to know where they should be heading, even if the path may be modified en route. A clear sense of vision helps to keep people focused on what is essential to do and what are the priorities amongst the myriad of activities, demands and opportunities that may emerge. When people have a clear sense of vision, not only do they focus their energy in the right direction and make informed choices about what they do or do not do, they also feel more engaged as a result of knowing what is the goal that their efforts are contributing to. The managers we interviewed talked about having to “dive into the granularity of the operations” in order to understand the challenges at that level, but also having the ability to pull away from that level of detail and see things from a more strategic and long-term perspective.

In VUCA prime the antidote to Uncertainty is Understanding. Our interviewees concurred that when the situation changes rapidly, communication is essential to make sure that everyone has the same level of understanding of issues and that leaders understand also how their people may be thinking or feeling. Our interviewees went even further in describing the importance of building trust during the calmer periods, so that when the crisis hits, you can mobilize people because they have faith that the leader has everyone's best interests at heart. This was particularly the case in operational teams where actions need to be taken quickly and there is not always the time to discuss fully. If mutual understanding has been built in advance, people can accept a more

direct kind of leadership in times of crisis. This means investing a lot of time and energy in listening to people when you can, so that they trust your decision-making later on.

VUCA prime suggests combating complexity with clarity. Suppose, in the agricultural business there are always some things you cannot master, like the weather. However one has to be clear about what is knowable and unknowable and acting to control the knowable. Complexity means that you cannot always foresee what elements will be influenced by what factors, therefore people need more than ever for you to simplify processes without being simplistic. Simply stating what are the knowable and unknowable facts is already a good start in helping people to develop clarity around what they can control and therefore where they should focus their efforts on and what aspects are beyond their ambit of control, but maybe need to be monitored without dissipating too much energy in attempting to control the uncontrollable.

VUCA prime proposes Agility as an antidote to Ambiguity. If the situation is not clear, then we need to have the flexibility to respond to whatever occurs. Individuals all have their own tolerance level for ambiguity, which is determined to a large extent by personality.

VUCA AND PERSONALITY STYLE

Some of us tend to use a logical problem-solving style, which works very well in situations that have known facts and where applying a process will lead to an effective outcome. Others amongst us tend to have a style that relies on building relationships to solve problems. This will work well in situations that are complicated, but not necessarily complex. In other words, there may be many different elements and points of view to take

into consideration, but the inter-relationships are relatively predictable. We just need to take time to consult others and get the input from experts or people concerned in order to know which the best course of action is. Yet others amongst us have an expedient style which works well when the situation requires an urgent response. It may not be the absolute best solution, but these individuals are able to act fast with courage and determination in order to achieve some form of resolution. A fourth group of people are most at ease with complex situations that require new forms of thinking and creative approaches. They are less structured than the logical people described initially, less relationship-driven than the second group of people and less dynamic than the expedient types. However, this style of problem-solving works well when there are few known facts and very little experience of similar situations to rely on.

All of the styles described above are useful in a VUCA world. Simply having an awareness of one's problem-solving style and one's relationship to ambiguity can help managers to understand how they can use their talents in a VUCA environment to apply VUCA prime. Each one of us will have a particular affinity or particular challenges with certain aspects of VUCA prime and knowing this can help individuals to know how they can contribute to a team in volatile times and what aspects of VUCA prime they may need support with. A key competence for the VUCA leader is to be able to draw on and utilize all of the talents in the team. No one person has all the skills or all the insights necessary.

WINNING IN A VUCA WORLD

Putting the four dimensions of growth together is the key to unlocking not just how business can win in a VUCA world, but also to rediscovering its true role in society. To do this, businesses need to first put in place the right hardware.

Foresight and Agility

Winning in a VUCA world requires the ability to simultaneously manage both the short-term and the long-term goals of a business. In turbulent and fast-changing times, businesses need to be anchored in a long-term destination while also dynamically managing the short-term. The role of leadership is to have a clear point of view about the future and build an organization that can navigate towards that destination through good times, and importantly, also in bad times.

Consumer Centricity

As the world changes, consumers are also changing. There are an emerging poor in the developed world and an emerging affluent in the developing world. The way people shop and consume is also changing. More than ever, businesses must have an insight into the changing needs and aspirations of their consumers to be successful.

Think Local and Act Global

To consistently succeed in the VUCA world, one also needs to be globally leveraged and locally relevant. A very common phrase used by multinationals is 'Think Global, Act Local'. In reality there is no such thing as a global consumer. Our mantra is to think local but act global. Any organization needs to understand what local consumers and customers need or want. Then leveraging upon the global understanding, technology and knowledge it can provide the best solutions to meet these local needs. The strength is the ability to combine global scale with locally tailored solutions. Organizations of tomorrow need to be neither hopelessly local nor mindlessly global.

Attracting Great Talent

The ability to attract, develop and retain the best talent is what makes businesses successful in the long-term. Increasingly, young men and women want to work for a company that

reflects their own values. If they believe in a common vision and the larger corporate purpose, they are motivated to deliver great performance. It is no longer enough to be working for a business that is doing well if it is not also doing well.

Modern Day organizations are no longer defined by fixed workplaces, nine-to-five working hours or by a set of homogenous employees. Organizations are becoming boundary-less and often, location agnostic. Operational and business models are being turned on their heads with the advent of enterprises like Uber and Amazon. These complexities will continue to exponentially increase as we enter a hyper-digital era with Artificial Intelligence (AI), Robotics, 3D printing and much more looming over the horizon. Going ahead, organizations of the future will function as platforms connecting diverse, distributed, and multi-talented individuals who will come together to create value.

It is understood that the workforce today has expanded to include contractual and contingent workers, partners, vendors and suppliers, as well as customers and competitors – the extended enterprise. This "extended enterprise" is as critical to the success of any organization as the permanent employees. However, seamlessly integrating this ecosystem of stakeholders such that they can come together in a purposeful manner to create value for the organization and fulfill their individual potentials is posing to be a challenge. In the Industrial Era, work got done in silos with process adherence and efficiency playing a huge role. This style of working will no longer suffice as we enter an era characterized by flux and ambiguity – the VUCA (Volatile, Uncertain, Complex, and Ambiguous) world.

Currently, many organizations are caught up in trying to deploy different

systems of engagement like social intranets, blogs, enterprise collaboration platforms, and so on. However, these are very often disconnected from the core HR systems where organizational information and data reside. This leads to incongruence and an inability to connect the loops in the value chain. This is also where most of the digital and collaboration initiatives flounder. This is where HR can play a crucial role in bridging the two systems – not only through technology but also by re-imagining the processes, the organizational design, and other initiatives like community management, empowering employees with digital skills for them to navigate this new world with ease, and enabling and creating a culture of collaboration and sharing.

HR Re-imagination can happen at multiple levels to empower employees and the organization and form the bedrock of a new organizational culture. Some of these initiatives are briefly described below:

1. **Extended Enterprise** - Employees are no longer a homogenous set of people. Contractors, consultants, partners, vendors, customers and competitors are coming together to get the work done. Therefore, organizations that support communities consisting of this extended enterprise stand to benefit in multiple ways like improved agility, diversity of thought and greater innovation capabilities and increased level of trust among different stakeholders.
2. **Communities of Practices** - Organizations today work across domains and areas of expertise. It is no longer possible for an individual or a small team of people to find solutions to complex problems, exceptions and challenges that businesses are

facing today. Practitioners come together in these communities to share the latest and the best, to find innovative solutions and contribute to the growth of the domain. Individuals join communities voluntarily when they see value and can evolve both professionally and personally.

3. Enterprise Social Networks (ESNs) - Organizations are becoming increasingly distributed, diverse, and digital. Employees today expect to be able to work from anywhere, anytime, and from any device. ESNs, once thought of as a “good-to-have” have transformed into “must-haves” to keep this distributed workforce connected, to enable seamless sharing of explicit and tacit knowledge, and to facilitate conversations across geographies, business units, and domains - a critical component of the future of work. HR must don the mantle of collaboration enablers and community managers to build connected enterprises.

By putting communities and collaboration front and centre, HR can highlight the importance of leveraging the advantages of network and emergent technology (social, mobile, analytics, etc.). This new way of working will include enterprise platforms and other collaboration enablers that, if appropriately used, reduce the cost of communication to almost zero. They can also facilitate self-driven learning, a culture of transparency and ongoing feedback, contextual and dialogue-driven problem solving. Most importantly, these tools can cut across organizational silos and tap into the organizational hive mind to build a learning agile and future-ready workplace.

This shift requires a careful and

intentionally-designed workplace where collaboration and social learning is not a bolt-on aspect but a part of core business strategy. A culture of participation must be supported where “participation” does not imply bureaucratic compliance and cooperation, but thoughtful conversation and open sharing.

LEADERSHIP IN A VUCA WORLD

However, winning in a VUCA world is not just about the hardware. It is also about having new software – a new kind of leadership that is values-led and purpose-driven and leaders who can redefine the role of business in society.

To be values-led is more than simply putting your values down on a piece of paper. It is about living and breathing those values every day. As a business leader, it is about having a true north – an internal compass with non-negotiable. It is also about being clear what those non-negotiable are, and most importantly, it is about sticking to them in good times and in adversity.

Leaders, from CEO to any other internal manager, therefore have a major role to play in ensuring their organizations are responding to the requirements of the VUCA business environment.

More Focus on Vertical Development: There are two different types of development—horizontal and vertical. A great deal of time has been spent on “horizontal” development (competencies), but very little time on “vertical” development (developmental stages). The methods for horizontal and vertical development are very different. Horizontal development can be “transmitted” (from an expert), but vertical development must be earned (for oneself).

Transfer of Greater Developmental Ownership to the Individual: People develop fastest when they feel

responsible for their own progress. The current model encourages people to believe that someone else is responsible for their development—human resources, their manager, or trainers. We will need to help people out of the passenger seat and into the driver’s seat of their own development.

Greater Focus on Collective rather than Individual Leadership: Leadership development has come to a point of being too individually focused and elitist. There is a transition occurring from the old paradigm in which leadership resided in a person or role, to a new one in which leadership is a collective process that is spread throughout networks of people. The question will change from, “Who are the leaders?” to “What conditions do we need for leadership to flourish in the network?” How do we spread leadership capacity throughout the organization and democratize leadership?

Much Greater Focus on Innovation in Leadership Development Methods: There are no simple, existing models or programs that will be sufficient to develop the levels of collective leadership required to meet an increasingly complex future. Instead, an era of rapid innovation will be needed in which organizations experiment with new approaches that combine diverse ideas in new ways and share these with others. Technology and the web will both provide the infrastructure and drive the change. Organizations that embrace the changes will do better than those who resist it.

Table.1

Current Focus	Future Focus
The “What” of Leadership	The “What” and “How” of Development
Horizontal Development	Horizontal and Vertical Development

HR/Training Companies own Development	Each Person owns Development
Leadership Resides in Individual Managers	Collective Leadership is Spread throughout the Network

Source: Centre for Creative Leadership

Leaders, from CEOs to any other internal manager, therefore have a major role to play in ensuring their organizations are responding to the requirements of the VUCA business environment. Research on responsible leadership is still at a nascent stage. However, given its all-compassing approach toward ethicality, valuing others and inclusivity, it is certain that this type of leadership is the “need of the hour” for effectively addressing the requirements of a VUCA world. The foundation of responsible leadership is based on the following treatise: “Give to the world the best you have and the best will come back to you”.

CONCLUSION

The VUCA world is not going to disappear and as technology develops rapidly and the world becomes more and more a global market place, there is no place to hide. Change is relentless and the landscape in which we work is constantly shifting. The leadership role becomes increasingly one of creating moments of clarity and focus and at the same time, we need to keep an eye on what is shifting and preparing to strategize accordingly. Rigidly adhering to a chosen strategy risks missing opportunities or failing to respond to market and environmental changes. Somehow leaders need to walk a fine line between these two positions in order to be flexible and yet sufficiently focused to keep people motivated. VUCA is complex and challenging, but it is also an environment that can allow true leadership talents to emerge at all levels of the organization. Indeed

one of the major lessons of the VUCA world is that leaders need to engage all employees at all levels to gain their trust and contribution in dealing with the great range of challenges. Therefore, VUCA becomes an opportunity for development and greater collaboration, rather than a risk to be mitigated.

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WEB BASED SHOPPING: AN ANALYSIS OF FACTORS AFFECTING CONSUMERS ATTITUDE TOWARDS ONLINE SHOPPING

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ABSTRACT:

The trend of e-commerce has been increasing rapidly in the recent years due to the development of internet and the easy accessibility of internet usage. Easy access to Internet has driven consumers to shop online. Through electronic marketing and internet communication business firms are coordinating different marketing activities such as market research, product development, inform customers about product features, promotion, customer services, customer feedback and so on. The main objective of this study is to analyse variables affecting online shopping behavior of consumers in India. The list of the independent & dependent variable are Advertising, Perceived risk, Security, Website design, Convenience and Consumer attitude towards online shopping. To analyse the data SPSS was used. Reliability test (.738) was done. Regression and correlation results showed positive relation between advertising & consumer attitude towards online shopping and Website Design & consumer attitude towards online shopping.

Keywords: Online shopping, consumer attitudes, Advertising, Perceived risk, Security, Website design, Convenience

INTRODUCTION

Over the past few decades, the Internet has emerged into as a global market place for the transactions of goods and services. In most of the developed countries, the Internet is used as an important medium, providing variety of products. Majority of e-commerce transactions these days are done via Internet such as online shopping. It reduces not only sales marketing cost but also reduces overall operational cost. It helps in increasing efficiency it reduces sales and marketing cost as well as reduces overall operational cost which results in increase of efficiency and profit.

Examining online shopping behavior of consumers has been an important research area in e-commerce during the past decade (Chen, 2009). The research of online consumer behavior is being done in multiple disciplines including information systems, marketing, management science, psychology etc. (Hoffman and Novak, 1996; Cheung et al., 2005; Zhou et al, 2007).

The main objective of the study is to know the factors that influence the consumer's attitudes towards online shopping.

STATEMENT OF THE PROBLEM

Severe competitions among online sellers have forced the marketer to capture the market share in the field of online shopping. To gain competitive edge in the market, marketers need to know the consumer behavior in the area of online shopping. This study will help the marketer to analyze and identify the factors which influence consumers to shop online.

OBJECTIVE

The main objective of the study is to identify and analyze the factors affecting the consumer behavior towards online shopping.

LITERATURE REVIEW

Advertising

Online ads such as banners and pop-up ads play a very important role in the consumer attitude towards online shopping. According to Kotler & Killer, (2012), e-promotion such as free computer software trial and personalized offering via email also helps in the promoting and affects online shopping. Investigators such as Tellis et al. (2000) have examined the effectiveness of various marketing

communication tools and their effects on consumer's response. According to them television ads increase the number of direct response of viewers. Liaukonyte et al. (2014) investigated the relationship between single-source advertising on sales of large retailers and found that TV ads motivate direct-response, which in turn has positive impact on a retailer's sale in the short-term. Some studies like that of (Faber et al., 2004) have suggested that online advertising (e-advertisement) may not influence consumers' purchase decision; instead that it has a high possibility to increase brand awareness. But at the same time investigators like Nuseir et al. (2010) elaborated in his study that promotional offers reduce the perceived risk factors associated with online shopping's. Lim et al. (2011) suggested that advertising on Internet would be more effective in influencing consumers' online shopping behavior if sales promotions were emphasized and go hand-in-hand with the advertisements.

Convenience

Convenience is one of the major positive factors prompting consumers to shop online, (Ahmad, 2002;

Jayawardhena et al., 2007). The main reason that motivated consumers to shop online was conveniences (Swaminathan et al., 1999). Convenient access to product information could facilitate and help shoppers' making an online purchases decision (Loshe & Spiller, 1999). According to Wang et al., (2005) convenience is one the most impactful factors concerning online shopping willingness.

Security

Security is a critical successful factor for e-commerce. Retail e-commerce would fail if Internet users feel on lacking a great degree of confidence (Kesh et al., 2002). According to Flavian and Guinaliu (2006), security online is defined as the belief of the consumer that his financial data will be protected, not made available publically, not be stored and not be used by unauthorized people. Even today, the security of an online transactions is still a leading issue when it comes to online shopping (Park & Kim, 2003; Elliot & Fowell, 2000; Liao & Cheung, 2001; Szymanski & Hise, 2000).

Perceived Risk

Cox and Rich, 1964 defined perceived risk as the nature and amount of risk perceived by a consumer in contemplating a particular purchase decision. Research suggests that consumers generally prefer to use electronic commerce for purchasing products that do not require physical inspection (Peterson et al., 1997). Tan (1999) suggests that higher the perceived experience risk, the higher the consumer may shift to brick-and-mortar retailer for the purchase of the product. Whereas, the lower the perceived risk, the higher the propensity for online shopping. According to Bhatnagar et al., (2000) the level of uncertainty surrounding the online purchasing process influences consumers' perceptions regarding the perceived risks.

Website Design

Design characteristics of a web page were found to affect consumers' online buying decision A study conducted by Dholakia and Rego [1998] examined the factors which make commercial web pages popular. They found that a high daily hit-rate is strongly affected by the number of updates made to the website in the previous three month period. Ho and Wu [1999] found that homepage presentation is a major antecedent of customer satisfaction. The other antecedents; like logical support, technological characteristics, information characteristics and product characteristics are also predictive factors to satisfaction. Rosen & Purinton, 2004 in their study identified dimensions like hyperlinks, navigation bars and sitemaps for effective website design and provide insight into site design characteristics that lead to a higher likelihood of revisit. According to Hausman & Siekpe, 2009 research in website design suggests that providing richer media with more real environment has more positive influence with user's involvement.

Website design

Convenience

Dependent variable

Consumer attitude towards online shopping

On the basis of the model following five hypotheses were made.

H1. There is no significant relationship between advertising & consumer attitude towards online shopping.

H2: There is no significant relationship between Perceived risk & consumer attitude towards online shopping.

H3: There is no significant relationship between Security & consumer attitude towards online shopping.

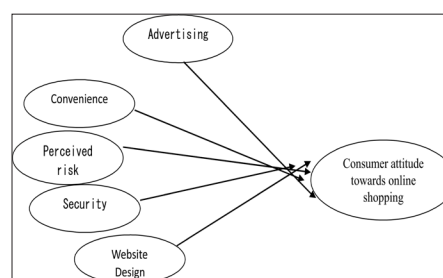
H4: There is no significant relationship between Website Design & consumer attitude towards online shopping.

H5: There is no significant relationship between Convenience & consumer attitude towards online shopping.

ANALYSIS OF THE DATA

To test hypothesis of this research, a questionnaire was conducted to collect required data in order to support or reject hypotheses. This questionnaire assessed all variables of conceptual model by constructing 24 questions. The reliability of questions was tested by Cronbach's Alpha and result showed that all of them were above .736 offering good reliability of the questionnaire. All questions were rated on a five-point Likert scale from) "strongly agree" (1) to "strongly disagree" (5). 156 questionnaires were filled up by the consumers. Finally 147 questionnaires were usable for analyzing. This paper is based on an empirical research that applies quantitative approach by using numeric and quantifiable data. In addition, a convenience sampling method was conducted for the study.

Figure 1: Conceptual model



RESEARCH METHODOLOGY

The main objective of this study is analyzing factors affecting online shopping behavior of consumers in India. For this purpose different variables were taken. The list of the independent & dependent variable is as follows.

Independent variables

Advertising
Perceived risk
Security

Table 1: Reliability of different variables

Reliability Statistics	
Cronbach's Alpha	N of Variables
.736	6

From Table 2 it is clear that out of 156 respondents, 46.9 percent were females and 53.1 percent were males; As for the age group, 37.4 percent of the respondents were in the range of 21-25; the group maximum respondents belonged to, 30.6% of the respondents belonged to the income group of 21-25 lakh per annum and 42.9% of the respondents were working

Demographic profile

Table 2: Demographic profile of the Respondents

Variable	Frequency	Percentage
Age		
15-20	24	16.3
21-25	55	37.4
26-30	36	24.5
31-35	21	14.3
35 & Above	11	7.5
Income		
5- 10	11	7.5
10-15	27	18.4
16-20	44	29.9
21-25	45	30.6
26& Above	20	13.6
Qualification		
12th	17	11.6
Graduation	47	32.0
Post Graduation	44	29.9
PhD	39	26.5
Gender		
Male	78	53.1
Female	69	46.9
Working/Non working		
Working	63	42.9
Non Working	84	57.1

Table 3: Correlation between convenience & advertising

Correlations					
Advertising		Convenience	Perceived risk	Security	Website design
Advertising	1.000				
Convenience	..398	1.000			
Perceived risk	.116	.140	1.000		
Security	.244	.503	-.212	1.000	
Website design	.500	-.440	-.264	-.110	1.000

Table 3 shows the correlation between convenience & advertising is positive. The Correlation between website design & convenience, security & perceived risk, website design & perceived risk and website design & security is negative. The relationship between perceived risk & advertising, security & advertising, security & convenience, perceived risk & convenience are found to be positively correlated.

Table: 4 Regressions of determinants of attitude toward online shopping

Predictor	Unstandardised coefficients B	Standard error	Beta	t-value	Sig
(Constant)	-2.773	1.125		-2.457	.016
Advertising	.319	.045	.410	7.040	.000
Convenience	.431	.061	.405	7.085	.000
Perceived risk	.123	.038	.161	3.281	.002
Security	.268	.074	.200	3.621	.001
Website design	-.191	.064	-.162	-2.963	.004

Linear regressions were conducted to test the hypotheses. All the independent variable had statistically significant relationship with online purchase intention at 0.05 level. The advertising and convenience dimension possesses stronger impact on customer attitude towards online purchase. Security perceived risk and website design were found to be significantly related to purchase intention. Thus, Hypotheses 1, 2, 3, 4, and 5 were supported.

LIMITATIONS

The Limitations of this study are:

- 1) Few factors were taken for the study because of time constraints
- 2) Because of using questionnaire as data gathering tools, the respondents may not answer the questions exactly according to what they think and behave.
- 3) In this research because of time and cost constraints we examined factors affecting on online shopping behavior of consumers in India. It is obvious that in other countries people have different characteristics and behaviors. So the result of this study may have lack of generalize ability to other countries.

CONCLUSION

Indian online shoppers are young just like the other parts of the world. They do online shopping because it saves time, offers home delivery, provides ease in shopping and offers more variety of products etc. External stimuli play an important role in encouraging the

customers to go for online shopping. But at the same time they do have security and risk factor issues. But still most of the respondents prefer buying online due to its convenience and other factors.

THEORETICAL IMPLICATIONS

This study provides a platform for the future researchers in studying the consumer behavior of Indian online shoppers. Increasing sample size would lead to further studies in consumer behavior of online shopping. Furthermore in this research five factors have only been tested on online shopping behavior. Researchers can examine other factors affecting on online shopping behavior with extensive researches. Also by extending this study to other countries, we can have better results and understanding about online shopping behavior of different kind of customers.

MANAGERIAL IMPLICATIONS

The findings of the paper provide managers guideline about the importance of various variables for online shopping preferences of the consumers. Managers can apply different approaches to increase or make the online shopping more attractive which would further lead to competitive advantage in the Indian market.

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HR ANALYTICS AS CATALYST FOR TRANSFORMATION

Davinder Sharma*

ABSTRACT:

There is a dawning awareness that data, as a commodity in itself, has little value to an organization unless it is transformed into meaningful intelligence. The sheer volume of Big Data that organizations can and do amass is overwhelming. The business has changed dramatically with data analytics becoming a way of life for HR personnel worldwide. HR analytics is the buzzword among practitioners and consultants in the field of human resource management. Advanced Analytic drivers such as increased data, increased computational power, analytical algorithms have developed and positioned HR analytics as a necessary solution. The ease to use HR analytics will ascend once we are able to overcome the challenges faced in HR analytics. HR managers are familiar with the concept of HR Analytics but lack the analytical muscle to execute it. HR is all about people and automation technology should augment the efficiency with which people work, not replace them. When it comes to a company's annual HR strategy and planning cycle, much of work is still done manually by expert HR researchers, analysts, and data scientists. A changing landscape in both technology and talent means HR must frequently seek out better tactics, processes and tools to survive in the disruptive environment. This paper gives insights on the alchemy of HR function and the ways to manage the vexing challenges faced in analytics.

Keywords: HR analytics, Big data, Talent management

INTRODUCTION

The buzz word analytics is on every manager's mind today! So what exactly is analytics? According to one heavily cited industry report, big data is anything too large for typical database tools to be able to capture, store, manage and analyse – a necessarily subjective and flexible definition, which ranges from 'a few dozen terabytes to multiple petabytes'. The latter definition would encompass data held on existing HRIS: small by the standards of large unstructured data, but big by the standards of the quantitative data sets used in academic social science and able to generate 'smart' insights by virtue of the longitudinal nature of the data.

By contrast, the former definition would focus exclusively on unstructured data, including email content, communication through social networks, web searches, digital images and video footage, and location data from smart phones and other electronic devices. Therefore, in practical terms, analytics involves both traditional relational database and spreadsheet-

based analysis, new forms of database software that allow very large quantities of data to be stored and organised more efficiently and new techniques for representing and understanding data through visualization.(Andy et al., 2016).The role of HR revolves around recruiting, developing, compensating, integrating, and maintaining human capital. With technology enabling the HR function in many aspects, technology –led business outcomes is the key to the future of successful HR. Moving forward, to continuously add value, HR managers must replace the intuitive approach with data-driven insights and recommendations. And this is where people analytics play a quintessential role.

HR ANALYTICS

HR analytics was coined by Jac-Fitz-Enz in his book *How to Measure Human Resource Management* in which he also he also outlined the metrics which can be used to effectively measure employee performance. Since then HR analytics has evolved from an experimental approach to effectively

manage human capital to a diverse set of strategic tools and technique for improving employee engagement, reducing employee turnover, administration and forecasting.

HR analytics has expanded and now offers solutions to many business problems by integrating a company's HR data with its strategies. People analytics helps enable organizations to continue doing what is right, identify and stop doing what is not right and predict and take measures even before something goes wrong.

Human resource analytics (HR analytics) is an area in the field of analytics that refers to applying analytic processes to the human resource department of an organization with the view of improving employee performance, hence getting a better return on investment. HR analytics is all about building bridge of effectiveness between what HR does and outcomes of the business – and then creating strategies based on that information. The key aspect of HR analytics is to

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provide data on the impact the HR department has on the organization as a whole (Frost & Sullivan, 2017).

More specifically, data held in HRIS typically are composed of basic information on the workers. Additionally, there are a variety of 'soft' performance data that might be collected from appraisal and performance management systems, along with information on training and development that the worker has experienced, information on grievances, capability and disciplinary cases, dispute resolution, internal communications, participation schemes and staff attitudes surveys.

Historically, the data gathered is stored in separate pieces of software designed to carry out different HR processes, but increasingly, as organizations invest in upgrading HRIS, data is being gathered together and held in cloud-based data warehouses. Conceivably, these data could be combined with 'bigger' data on what a worker does (location data from mobile phones, Internet browsing histories, electronic calendars and other handheld electronic devices used in production or service delivery), who they communicate with (email and phone records and online collaborative tools) and what they communicate about (the content of email, instant messenger conversations and SMS messages, and recordings of interactions with clients).

Scattered blog posts provide hints of what might be possible with big data analysis using these types of data: extracting information on mood and morale from large bodies of email messages, mapping social networks and ties within organizations based on electronic records of communications, using geo-location data from mobile devices to gain a better understanding of what employees do and how they interact with one another.

But there is a challenge, the technical means to integrate, organise and analyse data held in conventional HRIS with data from these larger unstructured sources are as yet not well established due to lack of expertise and practical knowledge. There are also significant issues of privacy, consent and ethics to address when storing and analyzing HR data. Making better use of this data to create and capture value is a necessary prerequisite to the more advanced forms of big data analysis that are in development. (David et al., 2016).

Why do we need Data Analytics?

We know about Data analytics and how important it is but why exactly we need analytics?

1. Big Data analytics helps reduction in cost of data storage, increase efficiency of operations, as analysis of the entire value chain of an enterprises taken care of
2. Gives detailed understanding of employees/customers motivations and desires, and reveals patterns of behavior, helping unlock powerful new opportunities.
3. Helps company to generate predictive scenarios from historical data sets, and enables an organization to stay agile in the face of those predictions.
4. Analytics will drive broadening adoption of IoT and allow it to reach much higher levels of evolution. (Frost & Suvillan, 2017)

Firstly, HR analytics was used to establish a relationship between leadership quality and lower turnover levels, which resulted in higher levels of operator competence, which in turn fed through to fewer accidents, less maintenance time and higher customer satisfaction.

Figure: 1



Secondly, analytics was used to demonstrate the significant benefits the business derived from the company's graduate training programme; the programme was doubled in size as a result. Sparrow et al. (2015) cite the example of how Tesco applied the analytics tools developed to understand its customers to better understand its workforce and how McDonalds was able to identify how staff demographics, management behaviours and employee attitudes interacted to optimise restaurant performance. (David et al., 2016)

"We're pretty good about collecting data, running data and looking at data," but not at using it for predictive analytics, Michael Rochelle, chief strategy officer and principal human capital management

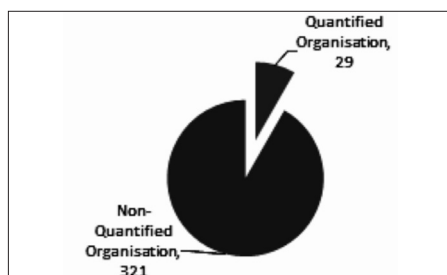
Survey data Brandon Hall collected last year showed that only 15 percent to 22 percent of organizations "can use data for predictive analytics" in each of five areas: employee performance, time and attendance, scheduling, absence and leave management, and salary and labor costs. (Martin Berman-Gorvine, 2015)

Only 4% of the 435 U.S. and Canadian company respondents to a recent survey reported using predictive analytics to drive their talent management decisions, according to Josh Bersin, an expert on human resources and a contributor to Forbes.com. Contrast that with Deloitte's The Analytics Advantage study which revealed 55% of surveyed companies say they invest in analytics to drive marketing and

sales, and you can see the maturity gap between the functional areas. Even within the HR function, only 0.2% of HR professionals are in an analytics function. (Katherine Koontz, 2017)

A consistent finding from the annual Sierra-Cedar HR Systems Survey was that “organizations outperform with workforce analytics”

Figure :2



Out of 350 organizations that participated in the study, 29 were identified as Quantified Organizations (QO) —that is, organizations that are data-driven in their decision making. Four Characteristics of Quantified Organizations: Business Intelligence (BI) Process Maturity, Manager Access to Analytics, Data Sources and Metrics Categories

Higher Return on Equity (ROE) is the measurable factor for outperformance, which quantifies an organization's success at generating profits from every unit of shareholder equity, such as that allocated to HR technologies. A company that earns ROE in excess of its cost of equity capital has added value. QO's saw a 79% higher ROE than all other organizations according to the 2014-2015 survey results, suggesting that leadership in HR analytics enables outperformance. In 2013, Bersin by Deloitte research showed that the stock prices of companies with high impact talent analytics outperformed their peers by 30% over the previous three years. Also in 2013, the CEB Analytics Survey found that organizations moving from median to leadership in workforce analytics improved their

talent outcomes by 12%, leading to a 4% improvement in gross profit margin. This translates into \$12.8 million in savings for every \$1 billion in revenue! (Lexy Martin, 2017)

Figure :3 (Lexy Martin, 2017)

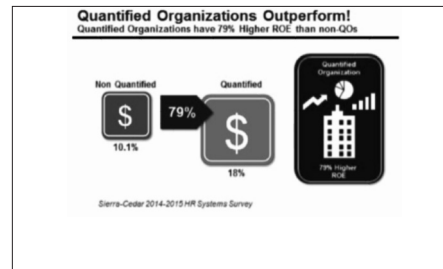
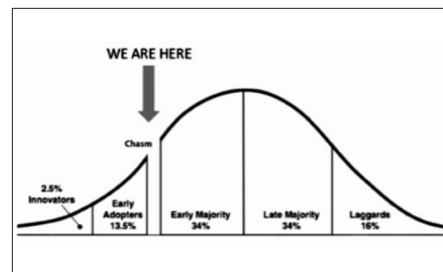


Figure :4 (Lexy Martin, 2017)



Innovators and early adopters implicitly understand that analytics provides a strong competitive advantage. What keeps HR professionals from embracing HRA through the use of BD and adopting this new innovation? Some early adopters of HRA who have had positive results are Google, SAP, Xerox, PepsiCo, FedEx Corp., and Aetna Inc., just to name a few. In an article titled “How Google Became the #3 Most Valuable Firm by Using People Analytics to Reinvent HR,” Sullivan (2013) writes, “Google has the only HR function on the planet that is managed based on people analytics. Google moved into the No. 3 position among the most valuable firms in the world”. Xerox revolutionized the candidate screening for their call centers by utilizing BD and predictive analytics; the result was a turnover decrease of 20% (Rafter, 2013).

Johnson Controls has a newly created function within their Human Resources organization focused solely on

workforce analytics. Help enable data-driven people decisions and share the insights from the data. Ride the wave of enthusiasm for workforce analytics and help build the function from the ground up, as it grows into a global centre of Expertise. The mission: create an evidence-based culture that endorses analytics at the highest levels

Many companies are trying to use advanced analytics to improve organization's decisions but technological challenge is hard enough. Companies have to identify the right data and develop useful tools, such as predictive algorithms. After this the tougher task is getting people to actually use the new tools.

New technique of learning and development which involves technology and analytics to counter the boredom in traditional L&D process is use of gamification to encourage people to invest the time and learn how to use the new tools. Gamification means using motivational techniques like those the videogame industry has put to such effective use.

Such motivational concepts and techniques encourage decision makers to use new analytical tools and collaborate with each other — both to improve the tools and to better their ability to make more informed decisions. (Lori Sherer, 2015)

Time to turn to data and analytics

“When the complexity and variation of human decision making for a set of tasks exceeds existing capabilities, it's a perfect time to turn to data and analytics to provide guidance” -By Katherine Koontz

Company envision a comprehensive people-analytics approach to ensure that employees are recruited, on boarded, developed, promoted and rewarded in ways that maximize their value to, and satisfaction with, their employer.

Some potential use cases for people analytics include

1. Path analysis developed to understand the education, training, leadership skills and development opportunities that result in the most successful employees.
2. Network analysis of emails and calendar entries highlights the relationships between individuals or specific roles that lead to the high performance.
3. Sentiment analysis of emails and performance reviews for high-performing managers provides insight into their approach to management.
4. Network and graph analysis of employees who commit fraud to identify others who may also be likely to commit the act.

When data engineers and data scientists are paired with HR subject matter experts to iteratively apply analytics against an intractable human management problem is a great way to deliver value quickly. That's why a robust human resources analytics program will become an imperative for companies looking to attract, grow and retain a happy and productive workforce. (Katherine Koontz, 2017)

The Future of the Workplace Such discussions about modifications to HR operations are especially important given the changing nature of the workplace. HR can optimize a business by using data analytics to build ad hoc teams based on individual skills, talents and strengths.

They can also use data analytics to make sure these different types of workers are compensated in the most efficient way - to maximize performance. Also over the past 10 years, the role of the C-suite has been redefined; many executives recognize big data and predictive analytics as the next opportunity to build competitive advantage. This

actually makes it important for HR teams to adapt the approach of data analytics.

THE EVOLUTION OF ADVANCED ANALYTICS

Descriptive Analytics

This stage defines business challenges and opportunities, comprising data warehousing. Key question answered: What is the current scenario?

Diagnostic Analytics

This stage provides insights as to the reasons for events, using techniques such as drill-down, data mining, and correlations. Key question answered: What is the reason?

Predictive Analytics

This uses text and data mining technologies, and primarily deals with forecasting.

Key question answered: What will happen next?

Prescriptive Analytics

This stage of the value chain deals with process optimization, modeling, and simulation for strategic decision making. Key question answered: What should I do next and why?(Frost & Sullivan, 2017)

Key drivers of Data Analytics

- Increased Data
- Increased Computational Power and Storage
- Evolving Analytical Algorithms
- Business Agility (Frost & Sullivan, 2017)

The Benefits of HR Analytics

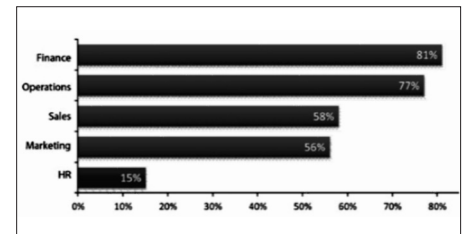
- Better Employee Engagement and Satisfaction
- Higher Staff Retention
- More Effective Training and Development
- More Successful Talent Acquisition
- Performance Management (Bosman, Coenette 2017)

Advanced Analytics Challenges

- Lack of Executive Buy-in
- Shortage of Human Talent
- Finding the right mix of Tools(Frost & Sullivan, 2017)

Which functions have strong analytics capabilities?

Figure :5 (Katherine Jones, 2014)



The HR function is lagging behind other functional areas of management in the adoption of analytics technology and in the analysis of big data. Little evidence can be seen that HR analytics is developing into a 'must have capability', which will ensure HR's future as a strategic management function. Many in the HR profession do not understand analytics or big data, while analytics teams do not understand HR. (Katherine Jones, 2014). This it is crucial that analytics team collaborate with HR professionals for outcomes. Today's talent management programs consistently are providing more and more data points for our use. Consolidating the data is not an issue. But to have the required skills to make accurate business decisions based on the analysis of data is what we have to deal with. The ability to analyze the data is very important, and all HR professionals today should be able to have command of the rudiments of data creation and use. Consider data visualization, It is another requisite skill that enables HR members to analyze and communicate findings from complex data sets. (Katherine Jones, 2014). The central problem is, the ideas about HR data and analytics have not penetrated the thinking of much of the HR profession. Many HR professionals are skeptical because they question whether people can be reduced to

metrics. Where these ideas have penetrated HR thinking, there remains the problem of praxis, the solution to which is not well understood in HR circles. (David et al., 2016)

Silo Mentality, For the potential and usage of analytics in HR and workforce planning –all should talk about it in conferences and meetings to share as much as they can to make sure the learning reaches to all, but it is seen that people don't share too much for reason, nobody can do it better than them or don't want to lose their expertise...! In relation to this, there may be insufficient data to ask the right questions. Silo mentalities within organisations prevent HR-related data being combined with data on other determinants of productivity and performance, so it is often hard to build analytical models that examine the role of HR-related factors while controlling for other relevant factors.

How to Fail at HR Analytics in 7 Easy Steps for failure

1. Position your program as strategic even if you've done nothing that qualifies it as such.
2. Focus on the solution before defining the problem.
3. Invest most of your resources in technology rather than partnering with the right vendor. "Build vs. buy"
4. Hire experts before they demonstrate any expertise.
5. Accept a role and reporting relationship that compromises your impact and integrity.
6. Delude yourself into believing that others value what you are doing as much as you do. Be realistic about your role in the organization.
7. Believe your own press. (Mark Berry, 2016)

Resources managers are facing fresh set of opportunities and challenges as a result of fast-evolving digital technology

1. A ,resilient digital platform that is secure, available on demand, and easy to set up and use – The digital platform is at the heart of HR operations. It's where intelligence is leveraged and insights moved around the organization. Increasing the frequency of updates and the likelihood of cyber-attacks – service providers must focus even more on building secure, scalable and agile systems.
2. Anywhere, anytime digital insights that improve business performance. Predictive analytics can move a business from a reactive to a proactive state, allowing buyers to look around the bend and see what's coming next. Useful and actionable results.

In HR, embracing analytics is critical. There is a war for talent, particularly in areas such as digital marketing, IT security and programming. (Publication info: Weblog post. Newstex Global Business Blogs , Chatham: Newstex. Oct 9, 2017)

CHALLENGES

No practical experience only theoretical knowledge

The development of HR analytics is being hampered by a lack of understanding of analytical thinking by the HR profession. It has come to notice that HR practitioners who have engaged with literature of HRA are enthused by its ideas, but feel no better informed about how to put them into practice than they were before they read it. This gets to a situation where, despite the promise, successful strategic HR analytics projects appear to be few. Although many organisations have begun to engage with HR data and analytics, most have not progressed beyond operational reporting. There is little evidence of the strategic use of HR analytics.

Many in the HR profession do not understand analytics or big data, while analytics teams do not understand HR (Publication info: Weblog post. Newstex Global Business Blogs, Chatham: Newstex. Oct 9, 2017)

Where to find the right skills

A bigger challenge is to find the right skills to become a data-driven HR department than rolling out the technology. HR managers need to think about how they will sharpen their own digital skills as well as find specialists such as data scientists to help them exploit their data. Do these skills exist in the organization or must they be recruited from the outside? Increasingly, running a successful HR department will be about blending geeks' technical and analytical skills with the intuition of a seasoned HR leader. (Bosman, Coenette , 2017).

The "Why" Debate

"Why should we do HR analytics?" Using HR analytics as a means of proving the value of the HR function is a misuse of analytics that fails to create any lasting value for an organization.

This perspective may fail to capitalize on the tremendous value that can be created for an organization as a whole from the effective application of HR analytics. The purpose of HR analytics is to improve individual and organizational performance.

Added side benefits of HR analytics are that it can help identify where not to be spending time, effort and budget, thereby reducing HR workloads and it can enhance the credibility of HR. (Laurie, et al., 2011)

HR analytics is probably 5-10 years behind other analytics disciplines

It was noted that HR analytics is probably 5-10 years behind other analytics disciplines such as logistics and marketing analysis for example. But rather than worrying about this fact,

the teams should look at the reasons why and also how to utilize those skills. Analysts in marketing study mathematics, physics, statistics and then apply these techniques to an industry. They don't know everything about marketing strategies on their first day in the role, but they can design a model to tell with a very high degree of certainty what the propensity for something to happen is.

So if the companies don't utilize these data skills, they may stay behind other analytical disciplines and only be able to do a small proportion of what could be possible with the data available to them.

Organizations usually indicate the following two interrelated reasons:

- Different systems are used to record employee information. Over the years especially large organizations have grown to complex data architectures but haven't defined and implemented a proper data integration solution.
- The quality of employee related data is not sufficient to be used for analytics. Information from employees may be incomplete or has not been controlled for consistency and uniformity.

Of course, If the data is unreliable and incomplete, the outcome of an analysis is unreliable.

But if organisations have the perfect data warehouse and some analysts who can perform exploratory analyses possibility of getting data 100% standardized, up-to-date and available is possible.

How All the departments analytics are inter related

For example, a regional senior executive indicates they are seeing a decline in customer satisfaction and says they might actually lose a big client. This is not perceived as an HR issue and it very

well could be that it isn't. But it is reason enough to explore all possible causes. The HR has performance data that is reliable, consisting of a performance rating and a potential score and can ask an analyst to analyze these data and slice-and-dice by region, management level and explore further. Perhaps there can be a link drawn between regional performance by managers and customer satisfaction or discovering something else in the analysis that doesn't impact the issue directly but is something that does need attention. For example, if a specific group scores high on 'has reached potential'. (Source: FCTB INDICIA)

PRESENT PRACTICES

Current Human Capital analytics practices that is prevalent in the industry:

1. Correlation: Correlating people data and business is definitely the future of analytics. However, care must be taken not to use the same for major decision-making as correlation can, sometimes, identify only mere coincidences.
2. Benchmarking: Benchmarking, a powerful data collecting tool, should be used as a way of looking at data, and should not be considered as an analysis procedure.
3. Cause-Effect Analysis: In order to perform cause-effect analysis in Human Capital analytics, Structural Equation modeling methods are being used.
4. Regression Analysis: Regression as a statistical tool helps to view multiple facets of data simultaneously and enables the user prioritizes the facets of people data that impact business outcomes. (Dr. P. Raghunadha Reddy, P. Lakshmikeerthi, 2017)

BARRIERS TO HR ANALYTICS

The major impediments to the application of HR analytics identified are :

- Inconsistent and inaccessibility of data
- Data quality issues
- Lack of standard/generic methodologies to analyse HR data
- Executive buy-in
- Skill gap in analytical knowledge & experience
- Funding issues
- Wrong or not targeting the right analytical opportunities
- Problems in initiating the project
- Improper timing

These factors are true for countries like India, where companies are trying to develop HR analytics Capability. The framework to implement an integrated talent management metric or a HR business driver analytics requires the usage of advanced statistical tools beyond the usual univariate statistical tools (means, quartiles and percentiles). Dooren in his findings questioned the objectives of using HR analytics in a company beyond its basic usages when more than 73.6% of the surveyed organizations admitted of having capability to utilize only the basic univariate statistical tools. His finding suggests that the major impediment in developing HR analytics capabilities is the perceived skill gap in the industry to analyse data using standard research methods. (Dr. P. Raghunadha Reddy, P. Lakshmikeerthi, 2017)

STATISTICS & MODELING USES IN HR ANALYTICS

Namely is the leading HR platform for mid-sized companies. They announced Namely Analytics which are new analytics tool that provides HR teams with the data needed to make strategic people decisions.

With 71% of companies rating HR analytics as a high priority, Namely designed Namely Analytics to tackle the challenges so prevalent in growing companies--such as how to attract and keep great talent, how to maintain

culture as organizations grow, and how to offer fair compensation.

Namely is used by over 900 clients with nearly 150,000 employees globally (PR Newswire, 2017)

DIFFERENT KIND OF EMERGING ANALYTICS WHICH WILL BE HELPFUL FOR HR

Text Analytics

Text analytics, also called text mining or opinion mining comprises data analytics techniques that extract rich, meaningful structured data from largely unstructured data in order to inform strategic decision making, discern customer sentiment about products, services, events, extract competitor information, organization of enormous amounts of data, and ultimately suggest predictive models to facilitate business agility.

80% of data today with HR is unstructured, and a large part of this data is in text format. Organizations can gather, store and mine this data for smarter decision-making. The data is generally in the form of tweets, e-mails, and surveys. It is difficult for an organization to gather insights from such data in the absence of advanced analytics.

Video Analytics

Video analytics, digitally analyzes video feeds using algorithms to monitor, analyze and manage large volumes of data. The analytics can be real-time, or retroactive, where events that have already occurred are analyzed. By this we can understand the equation shared in between the departments and also within the departments. This can in turn help to understand the relationship on real time basis and resolve conflict if any. This can be used for Team fit analysis

Emotion Analytics

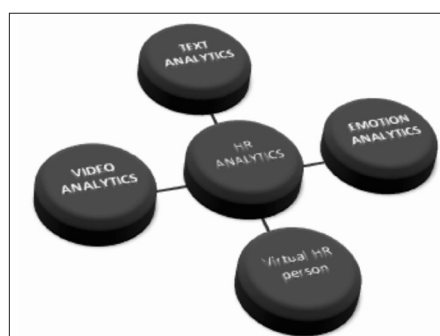
Emotional analytics involves analyzing the gamut of human moods, sentiments, attitudes and perceptions via a range of tools such as text, image, video and speech. Emotion analytics can be based on facial expression or analysis of speech. Emotion analytics records and analyzes a person's facial and/or verbal cues to identify moods such as happiness, anger, sadness, fear, disgust and surprise. This can be helpful while the post appraisal interview with the superior, in grievance interview & exit interview. By doing this HR can analyses the pattern of behavior of employees and react in particular manner with the employee to get the best out of him. (Frost & Sullivan, 2017)

SUGGESTIONS

A new concept of "Virtual HR person" should be adopted

In "Virtual HR person" a device which can monitor your movement, voice modulation, pitch, heart rate and temper can intimate you in advance that you have to stop what you are doing or else you will fall into trouble or a fight at work place, "Increased stress level please take a break". A "Virtual HR person" can be a device like your mobile phone or a watch at workplace 'BOTs' for short listing CVs at workplace

Figure: 6



Bots can be a software, dashboard or technology that has predetermined fed program to sort the CVs according to the job description.

CONCLUSION

The business world today is more specific in optimistic utilization of resources. As Human resources are the prime valued sources of any organization, more attention needs to be paid on this. All important decisions have be primarily evidence based. This evidence based approach in business demands for HR Analytics. HR Analytics is not only driving best HR decisions with accurate evidence, but also provoking organizations to maintain adequate quality data for justifying ROI in HR Investments. HR analytics is developing into a 'must have capability', which will ensure HR's future as a strategic management function.

It is evident that the HR function is lagging behind other functional areas of management in the adoption of analytics technology and in the analysis of big data.

Many in the HR profession do not understand analytics or big data, while analytics teams do not understand HR. There is a huge gap in knowing the HRA and practically implementing it in the organization for strategic decision making. Here the HR department is lacking behind. If given proper training and education this gap can be bridged. In this scenario, Academics could play a constructive role in these developments, but could also do more to elucidate the praxis of strategic HR analytics. A different approach to HR analytics is needed, which starts with the question of how HR data can be used to create, capture, leverage and protect value, then seeks to develop answers to these questions through more advanced forms of longitudinal multivariate modeling. However, unless HR professionals upgrade their skills and knowledge to become champions of this new approach, the existing forms of HR analytics are likely to seal the exclusion of HR from strategic, board-level influence while

doing little to benefit organizations and actively damaging the interests of employees. Technology is here to help HR professionals, to ease their work and give relief from hardship. This won't result into loss of credibility of human touch, because human touch is always needed. At the end of the day it is human who has to analyze the data sorted by data analytics and take appropriate decisions on it. Also to analyze the data HR professionals should acquire the skills as excellent analysts or else one wrong decision taken can break the organization apart.

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IMPACT OF MANAGEMENT INFORMATION SYSTEMS (MIS) IN DECISION MAKING

Shailendra Kumar* Sadhana Singh** Deepti Sharma***

ABSTRACT:

This paper focuses on understanding the concept of MIS, the need for MIS, the advantages of MIS in an organization, the MIS model, decisions and the decision making system and majorly the role of MIS in decision making. It talks about MIS in brief considering the concept of MIS, the MIS model that is used by organizations, how MIS is beneficial, why is there a need of MIS in an organization. It then gives an overview of decisions and the decision making system which is necessary to understand the decision making process. Finally, the major focus of this paper is the role of MIS in decision making of an organization. How decisions are made in an organization using MIS, what challenges are faced by the organization in this process and a few recommendations to curb these challenges. It also provides a brief understanding of why MIS improves decision making.

Keywords: MIS, MIS concept, Need for MIS, Benefits of MIS, MIS model, Decision making.

INTRODUCTION

Management information systems (MIS) is an organized, diverse and automated information system that is concerned with the process of gathering, storing and transferring relevant information to support the management operations in an organization. The data is distributed among the various departments in an organization. The processing of data takes place in various forms such as graphs, diagrams, charts, reports to generate accurate and relevant information for the management. MIS provides central storage of all the business information. MIS is used across all levels in an organization.

There are different types of management information systems. This paper focuses on decision making information system. MIS plays a vital role in not only collecting and managing information, but also representing it in various formats useful for the management to make important organizational decisions. MIS provides faster access to the required information which helps the organization to make effective and timely decisions regarding every aspect

such as investments, employments, products, etc depending upon the organization. Decision making basically refers to choosing a certain line of action from among several alternatives. It is integral management that occurs in every level of management and in every function. The effectiveness of the organization depends upon the quality of decisions that informs its operation. Decision making is a major metric to determine the organizations success or failure. This paper focuses on understanding the need, benefits, types of MIS, the MIS model, decision making system and majorly the role of MIS in decision making of the organization

CONCEPT OF MIS

Information is a set of classified and interpreted data used in decision making and it has also been defined as “some tangible or intangible entity which serves to reduce uncertainty about future state or events”. There are different levels of decision making, for which information can be described as:

- 1) Source
- 2) Data
- 3) Inferences and predictions drawn from data

- 4) Value and choices
- 5) Action which involves course of action.

Management information system has a purpose to meet the general information needs of all the managers in an organization or in some subunits of the organization. It supports the planning, control and operation functions of an organization by furnishing uniform information in the proper time frame to assist the decision makers”. The information in MIS describes the firm or one of its major systems in terms of what has happened in the past, what is happening now and what is likely to happen in the future. The information is provided in the form of reports and outputs of mathematical simulations. There are two types of reports namely, periodic and special report. All managers use the information output as they make decisions to solve the firm's problems. A management information system has also been defined as “an integrated user machine system for providing information to support operations, management and decision making functions in an organization. The system utilizes computers, manual procedures, models for analysis, planning, control and decision making,

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and a database". All these definitions give a concise understanding of MIS as a whole.

NEED OF MIS IN ORGANIZATIONS

Developments in computer technology made it possible for the managers to easily gather, integrate, store and manage the information in the form they require depending upon their needs and timing. Information is used simultaneously by many people. The information needs to be current, accurate, concise, timely, complete, well presented and storable. For organizational productivity, solely depending on personal computers is not reliable until it is used efficiently and effectively. Also, advanced technological systems for integrating and sorting the data can be costly unless the senior management provisions it to the staff. Thus, information systems came into picture. Information system is a mechanism that ensures information is available to the managers as per their need and time. It provides relevant information for decision making. Management information is an important input at every level in the organization for decision making, planning, organizing, implementing, and monitoring and controlling. Managers have to assimilate masses of data, convert that data into information, form conclusions about that information and make decisions leading to the achievement of business objectives. For an organization, information is as important resource as money, machinery and manpower. It is essential for the survival of the enterprise. Hence management information system plays a major role in managing information and making it easy for the managers to collect, integrate and assign the information and ensures effective and efficient decision making.

BENEFITS OF MIS

MIS makes a major difference for the

business organizations. It provides several benefits such as:

- 1) Effective and efficient coordination between Departments
- 2) Quick and reliable referencing
- 3) Access to relevant data and documents
- 4) Use of less labor.
- 5) Improvement in organizational and departmental techniques.
- 6) Management of day-to-day activities.
- 7) Day-to-day assistance in a Department and closer contact with the rest of the world.
- 8) Provides a valuable time-saving benefit to the workforce.

For an organization the most important factor is to efficient and effective work in minimum amount of time. MIS supports this aspect of gaining profit and ensures that employees do not have to collect data manually for filing and analysis. Instead, that information can be entered quickly and easily into a computer program. As the data is growing, it is becoming difficult for business analysts to analyze the data, hence MIS provides a platform for building programs to access the data in response to the queries by management. With faster access to needed information, managers can make better decisions about procedures, future directions, and developments by competitors, and make them more quickly.

THE MIS MODEL

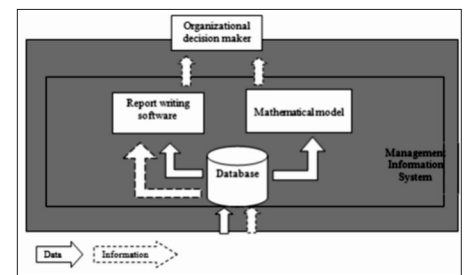
This section describes how a MIS model actually looks like. The components of the MIS model consist of:

- 1) Database
- 2) Organizational decision maker
- 3) Report writing software
- 4) Mathematical model

The organization of these components can be referred from

Figure A, given below.

Figure A



The working of the MIS model starts with data and information coming from different sources. The data provided by accounting information system is stored in the database. The data and the information are entered from the environment. Data based information is sent to the report writing software for generating periodic and special reports, as well as to the mathematical model for simulation of the various aspects of the organization's operations. The output from the report writing software and the mathematical model is then sent to the people who are responsible for solving the problems. To solve the problem, effective decision making is required for productivity. There are decision makers which may or may not exist in the firm's environment. The environment might consist of other organizations to which the firm has collaborated such as suppliers, to from an Inter Organizational Information System (IOS). In such case, MIS supplies information to the other member of the IOS.

DECISIONS AND THE DECISION MAKING SYSTEMS

According to Haynes and Massie, a decision is a course of action which is consciously chosen for achieving a desired result. According to Trewatha and Newport, Decision making involves the selection of course of action from among two or more possible alternatives in order to arrive at a solution for a given problem. Considering the classification of decisions, there are classification based on the situation and their nature. The types of decision on the basis of

situation are based on the knowledge about the outcomes that are yet to take place. For a successful decision, the decision maker should be aware of the outcome that will take place once that decision is taken. In addition to that, if the decision maker has the full knowledge of the system then it is a situation of certainty. Contrastingly, if the decision maker has partial or incomplete knowledge of the system, then it's a risk situation. Lastly, if the decision maker has no knowledge of the system then it is a situation under uncertainty.

On the basis of nature, decisions can be classified as programmed decisions and non-programmed decisions

- 1) Programmed decision: - If a decision is based on rules, methods or some guidelines then it is called as programmed decision. The programmed decision making can be delegated to a lower level in the management.
- 2) Non- programmed decision: - A decision which cannot be made using a rule or method is called as non programmed decisions. This decision making is non-deterministic and is handled by top management.

Decision making systems: Decision making systems are based on the decision maker's or the manager's knowledge about the environment. They can be classified into two types:

Closed Decision Making Systems: If the decision maker operates in a known environment then it is called as closed decision making. The conditions for the same are as follows:

- a) The manager has a known set of decision alternatives with their outcomes fully in terms of values if implemented.
- b) The manager has a model, a method, rules where the decision alternatives can be generated, tested and ranked.

- c) The manager can choose one of the alternatives based on the goals and objectives. Example: Examination system to declare a pass and fail.

Open Decision Making Systems: If the manager operates in an unknown environment then the decision-making is called as open decision making. The conditions for the same are as follows:

- a) The decision maker doesn't know all the decision alternatives.
- b) The outcome of the decision is also not known fully i.e. the knowledge of the outcome may be probabilistic one.
- c) No method, rule or model is available to study and finalize one decision among the set of decision alternative.
- d) It is difficult to decide objectives and goals. Therefore the decision maker reports to that decision where aspirations and desires meet. Example: Pricing a new product.

ROLE OF MIS IN DECISION MAKING

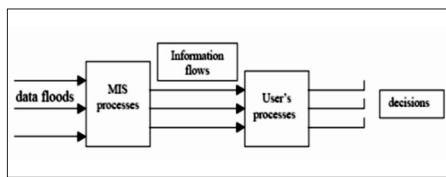
Decision - making is the process by which organizational members choose specific course of action out of several alternatives in response to opportunities and threats. The outcome of the decision making process either results in a good or a bad decision. A Good decision results in successful productivity of the organization and in the courses of actions that help an individual, group or organization to be effective, while a bad decision results in ineffective and inefficient choice of course of action thereby leading to poor or no productivity and overall loss of time, effort, finance and labor. Every organization grows, prospers or fails as a result of decisions made by its members. The success of decision-making is highly dependent partly on available information, and partly on the components of the process which are known as functions. For example,

if managerial objectives are absent or unclear, probably due to inadequate information, there is no basis for a search. Without the information, the search has no meaning because there will be no alternatives to compare search results, which will thereby yield an undesired result due to random choice of a particular course of action. According to Alabi the search could be through:

- 1) Undirected viewing: There is a general exposure to information where the viewer has no specific purpose in mind and is randomly searching for information from the entire information pool.
- 2) Conditioned viewing: There is a directed exposure to information. Yet it does not involve active search to a more or less clearly identified area or type of information.
- 3) Informal search: This is a relatively limited and unstructured effort to obtain specific information for a specific purpose. The information wanted is actively sought.
- 4) Formal search: This is a deliberate effort, usually following a pre-established plan, procedure or methodology to secure specific information relating to a specific issue. Simon (1984), a leading authority in management decision making considers that decision making comprises four principal phases:
 - 1) Intelligence- searching the environment for conditions that calls for decision making.
 - 2) Design- inventing, developing and analyzing possible courses of actions. This involves processes to understand the problem, to generate solutions and testing of solutions for feasibility.
 - 3) Choice- selecting an alternative or course of action from those variables.

- 4) Review- assessing and analyzing all the past choices.

Figure:B MIS Decision Making Process



For improvement in decision making using MIS, a relevant MIS strategy should be chosen and it should be ensured that the choice made is fully compatible with the system. Thus, time and money will be saved and the probability of selecting a wrong choice will decrease. Also, the selected MIS strategy should be compatible with the decisions made. That means there should be a common point between the decisions and the MIS strategy to be used by the organization.

CONCLUSION

Management Information Systems provides accurate, timely, relevant and complete information necessary to facilitate decision making in an organization. It helps in planning, control and operational functions to be carried out effectively and efficiently. It provides a wide range of decision alternatives for the decision makers, enabling them to make their choice depending on the system and the situation. It ensures that the choice results in more often, a positive outcome. These are the major reasons why MIS is chosen by renowned organizations for decision making and for management of information.

MIS with all of its advantages has a few challenges that need management involvement for smooth functioning of the organization when it comes to MIS. Decision making in such organizations would be faster and in line with the modern and efficient business practices. Business owners must learn to cope up with the ever changing trends in MIS and decision making, without which it

will be very challenging to make positive progress in decision making. Finally, it is vital to remember that improvement in decision making is fundamentally meant to ensure customer satisfaction while businesses continue to flourish in success. The MIS strategies should be adopted as per the requirement and should aim to achieve the business goals.

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ISSUES AND CHALLENGES FOR POTENTIAL WOMEN ENTREPRENEURS IN VUCA ENVIRONMENT IN DELHI/NCR

Kritika Jain & Pallavi Saxena*

ABSTRACT:

VUCA conflates four distinct types of challenges that demand four distinct types of response. Countless articles are being published every day how volatile, uncertain, complex and ambiguous the world has become. VUCA is an acronym widely used to describe all the condition in the external environment in which any business operates.

In a VUCA environment, in the era of liberalization and globalization in India, Entrepreneurship by women is giving very much importance and the Government of India is also framed a policy to dual up entrepreneurship skills to women. The data collected by the online survey. This study based on the sample size of 150 in Delhi/NCR. The complete research work is based on primary data. This paper analyses the problems, issues & challenges faced by potential women entrepreneurs in Delhi/NCR. There is a number of challenges faced by women entrepreneur during starting up and in its operations. The result is showed that family & society support is a major challenge to potential women entrepreneur as well as raising funds, peer competition, limited mobility is also a challenge.

Keywords: Entrepreneurship, Women entrepreneur, VUCA environment, Family & society support, Peer competition.

INTRODUCTION

The term “entrepreneurship” according to the business dictionary, is defined as “the capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make a profit”. In economics, “entrepreneurship combined with the land, labor, natural resources, and capital can produce a profit. The entrepreneurial spirit is characterized by innovation and risk-taking, and is an essential part of a nation’s ability to succeed in an ever-changing and increasingly competitive global marketplace”. VUCA is the volatile, uncertain, complex and ambiguous world we live in today. And the entrepreneurial mindset has historically taken the risks necessary to tackle the difficult social and business problems faced in today’s society. What more, it is no longer singular in solution or authoritative in nature. The ambiguity of the problems facing leaders today call for innovative thinkers. These wicked problems include natural disasters, global climate change, nuclear energy, food waste solutions, healthcare, pandemic influenza, drug trafficking,

and social injustice. It calls for all the resources known to entrepreneurs.

Women entrepreneur may be defined as women who initiate, organize and run an enterprise. The government of India has defined women entrepreneur who owning and controlling an enterprise with a For the social, economic and industrial development of the country it is necessary to develop women entrepreneurship. In the today scenario, women come forward with innovative ideas for business. Women entrepreneurship is necessary for the self-fulfillment, status, position, and right of society. Development of the women entrepreneurship is low in India as compared to other developed countries especially in the rural area of India. India is a male-dominated society where women have to face a lot of challenges while opening a business. First, they have to take permission of the head of the family. They have to give proper time to family and business which creates difficulty for the women because they can’t devote full time to business and other challenges like the personal barrier, social-culture barrier,

technology barrier, marketing barrier, financial barriers etc. Government and NGO are coming forward to help women in their business. But with excellent management skills some Indian women are able to raise the standard of living for example Ela Bhatt founder of SEWA, Thinlas Chorol founder of ladakhi women’s travel company, Annie George founder of BEDROC, Chetna Gala Sinha founder of Mann Deshi Mahila Sahakari Bank, Shri Mahila Griha Udyog founder of Lijjat Papadoman having a minimum financial interest of 51% of the capital. (1).

Women entrepreneur can be seen everywhere in the startup-up ecosystem of India. Women too are seen leaving their high- profile jobs as well as some stepping out the four walls of their homes and joining the pool of Entrepreneurship in India. The major factor to jumpstart the entrepreneurial journey is capital and various banks offer specialized loans for women entrepreneurs that have a slightly different and more flexible set of terms and conditions pertaining to collateral security, interest rates, etc.

Here is a list of various schemes and loans exclusively for women that aim at promoting and easing out the process for them –

- Annapurna Scheme
- Stree Shakti Package For Women Entrepreneur
- Bharatiya Mahila Bank Business Loan
- Mudra Yojana Scheme For Women

As per the Mudra Yojana scheme, Prime Minister Narendra Modi today said that the Mudra Yojana had transformed the lives of the poor in the country. As per the data available on Mudra Yojana's official website, "Out of the 12 crore beneficiaries, 74 percent or 9 crore borrowers are women.

OBJECTIVES

1. To explore the issues and challenges related to women entrepreneur.
2. To understand the growth of entrepreneurial ideas.
3. To determine the awareness of government schemes and a bank loan for being women entrepreneurs.

LITERATURE REVIEW:

Entrepreneurship

According to Debbie Roxarzade, Founder and CEO of Rachel's Kitchen "Entrepreneurship is the persistent progression towards an innovative solution to a key problem. It's the constant hunger for making things better and the idea that you are never satisfied with how things are." According to Tirath Kamdar, founder and CEO of True Facet "It is important to balance strong vision with a willingness to embrace change. The ability to listen, whether it be to the opinions of customers or employees, is also integral to success. While ... you must have the confidence to make your own choices, it is still incredibly important not to become detached from the people whose needs you are

trying to meet." According to James Bedal, CEO of Bare Metal Standard "To be a successful entrepreneur you must have a passion for learning – from customers, employees and even competitors."

Socio-Cultural Barriers

According to Assistant Professor, Bharath School of Business, Bharath University, Chennai Woman has to perform multiple roles be it familial or social irrespective of her career as a working woman or an entrepreneur. In our society, more importance is being given to a male child as compared to a female child. This mindset results in a lack of schooling and necessary training for women. As a result of these impediments the progress of women and handicap them in the world of work.

Peer Competition

According to the Sucheta Agarwal and Dr. Usha Lenka "A lot of the women entrepreneurs have imperfect organizational set up to drive in a lot of money for canvassing and advertisements. They have to face severe competition from organized industries. They have also to face stiff competition with the men entrepreneurs who easily involve in the promotion and development area and carry out easy marketing of their products with both the organized sector and their male counterparts. Such a competition ultimately results in the insolvency of women entrepreneurs." According to the Poornima M Charantimath, "Heavy competition in the market and their lack of mobility makes the women entrepreneurs dependent on middlemen. For marketing their products, women entrepreneurs are at the mercy of middlemen who pocket a major chunk of profit. Further, women entrepreneurs also find it difficult to capture the market and make their products popular. They lack information on the changing market. In addition, women entrepreneurs, face

difficulty in collection of payments."

Women Entrepreneurship

According to the Government of India, "an enterprise owned and controlled by women having a minimum financial interest of 51% of the capital and giving at least 51% of the employment generated by the enterprise to women". According to Kamal Singh, "a women entrepreneur can be defined as confident, innovative and creative women capable of achieving self-economic independence individually or in collaboration, generates employment opportunities for others through initiating, establishing and running the enterprise by keeping pace with her personal, family and social life".

HYPOTHESIS

- Family & society support does effect on the potential women entrepreneur.
- Funding issues do effect on the potential women entrepreneur.
- Limited mobility does effect on the potential women entrepreneur.
- Lack of awareness of government scheme does affect the potential women entrepreneur.

METHODOLOGY

For getting a better understanding of the issues and challenges for potential women entrepreneur, our research is based on "descriptive research". The methodology that was followed includes primary data collection. Primary data collection included a simple questionnaire. Such a questionnaire helps us to ascertain the issues and challenges related to potential women entrepreneurs and the growth of entrepreneurial ideas.

Population of Study

The respondent of this study was 128 from potential women entrepreneurs.

Sample Design

Snowball sampling of non- probability

sampling design was used to collect data from potential women entrepreneur of Delhi/NCR. The questionnaire items used in the study were developed based on the previous questionnaire. The questionnaire surveyed challenges faced by potential women entrepreneur with five factors – family & society support, limited mobility, funding issues, peer competition, limited managerial skill.

Data Collection

The data was collected through a structured questionnaire. 150 questionnaire distributed among potential women entrepreneur and received back 128 questionnaires which were properly filled. 128 questionnaires are fairly attempted with 85% response.

RESULTS

DEMOGRAPHIC CHARACTERISTICS

Table: 1

AGE GROUP	FREQUENCY
22 TO 30	111
31 & ABOVE	17

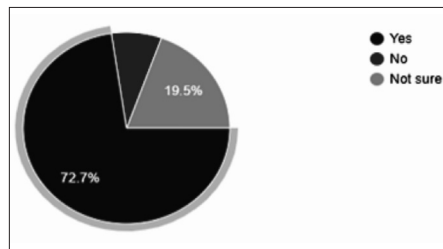
This indicates the age group of respondents to the study survey. This shows that the 22 to 30 age group comprises the highest percentage of the respondent of the study.

DATA ANALYSIS

Data analysis focused on the following major aspects.

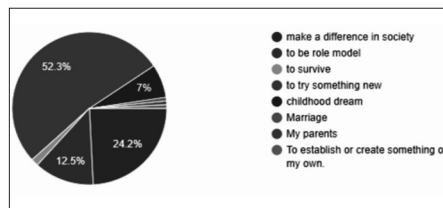
- Most trending entrepreneurial ideas among potential women entrepreneurs.
- To evaluate the typical women entrepreneurial traits.
- Access to finance really matter for women entrepreneur.
- Issue & challenges faced by potential women entrepreneurs.
- Awareness of government schemes and bank loan among potential women entrepreneur.

1. A PLAN TO BECOME AN POTENTIAL WOMEN ENTREPRENEURS



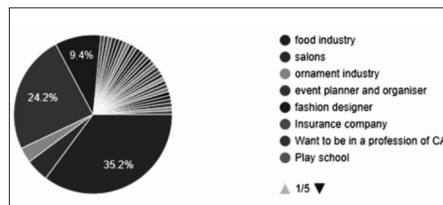
This study shows that most females want to become an entrepreneur. Some females are not sure about that.

2. MOTIVATION BEHIND ENTREPRENEURSHIP



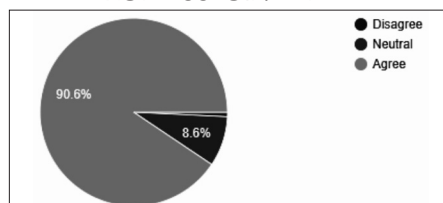
There are various factors to measure this as make a difference in society, to be role model, to survive, to try something new, childhood dream etc. this study shows that women want to try something new.

3. ENTREPRENEURIAL IDEAS



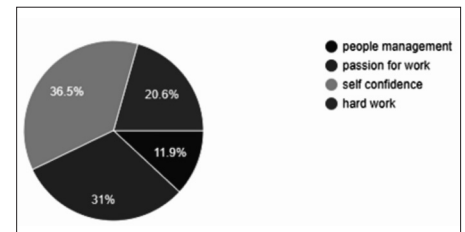
Everyone has some different ideas for doing business. As this study shows that most trending business among women entrepreneurs is related to the food industry. With this event planner and organizer, fashion designer, ornament industry, salons etc are also in trend.

4. ABLE TO BALANCE BOTH DOMESTIC AND PROFESSION LIFE



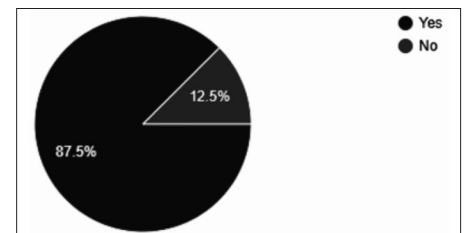
The question was asked on three points that are agree, disagree, and neutral. According to this study, women are able to balance both domestic and professional life.

5. FEMALE ENTREPRENEURIAL TRAITS



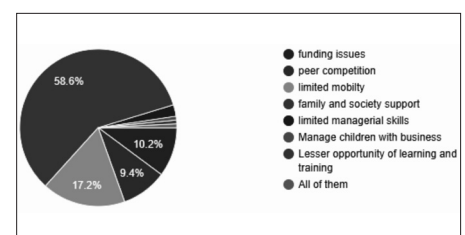
This study shows that majorly female entrepreneurial traits are self-confidence. With this passion for work and hard work are also traits for potential women entrepreneur.

6. ACCESS TO FINANCE



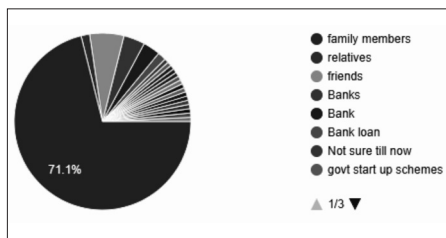
This study shows that access to finance really matter for potential women entrepreneurs.

7. ISSUES & CHALLENGES



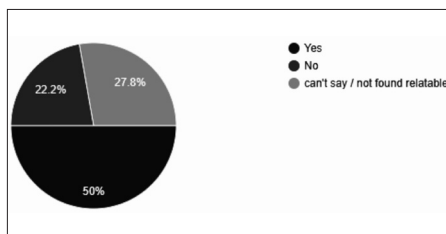
There are various issues and challenges which are faced by women entrepreneur. As funding issues, peer competition, limited mobility, family & society support, etc. but according to this study family & society, support is a major challenge faced by potential women entrepreneur.

8. GET FUNDS FOR BUSINESS



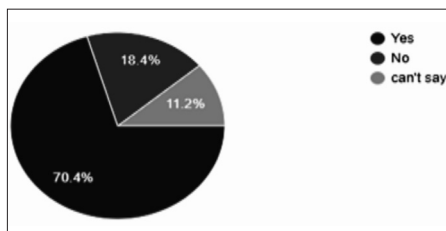
According to this study, potential women entrepreneur get funds for their business from family members.

9. AWARENESS OF GOVERNMENT SCHEMES



This study shows that only potential women entrepreneur get funds for their business from family members.

10. AWARENESS OF BANKS PROVIDE LOAN



This study shows that most respondents are aware of the loan provided by the bank for potential women entrepreneurs.

CONCLUSION

Women are an important part of the human resource and also for the country. As we do not imagine the family without women, the development of the economy is incomplete without the contribution of women. The male-dominated society, family & society support, funding issues, limited mobility, limited managerial skills,

work-life balance, peer competition issues create the hindrance in the path of potential women entrepreneurs. Technological advancement and information technology explosion have reduced the problem of women entrepreneurs. Along with the technological revolution, the mental revolution of society is needed to change the attitude of society and provide women with the democratic and entrepreneurial platform. Moreover with increasing Government and Non-Government and other financial institutions assistance for various potential women entrepreneurs within the economy there can be significant increase brought about in the growth of potential women entrepreneurship process.

Thus, Women have the potential and the determination to set up, uphold and supervise their own enterprises in a very systematic manner. Appropriate support and encouragement from the Society in general and family members, in particular, are required to help these women scale new heights in their business ventures. The right kind of assistance from family, society, and Government can make these Potential Women Entrepreneurs a part of the mainstream of the national economy and they can contribute to the economic progress of India.

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INDIAN BUSINESS & ECONOMY: A CRITICAL ANALYSIS OF THE GLOBAL LINKAGE

Nikhil Garg*

ABSTRACT:

It is always interesting to look at how some important economic variables moved. Today, almost any statistical number that is presented on the state of the economy cannot be looked at in isolation but has to be juxtaposed with what is happening in the world economy. Hence, global linkages at times could present a picture where strength of a country is derived by weakness elsewhere. This paper has compared movements of some important variables like CPI, exchange rate, changes in G secs, stock prices, fiscal deficits and others to see where India stands in global market.

Keywords: global linkages, Indian economy, global exchange rates, fiscal deficit.

OBJECTIVE

To analyze the movement of few important economic variables to see where India stands in global market.

RESEARCH METHODOLOGY

Type of study: Conceptual

Indicators: 8

Countries: G20s

Data Source: Ministry of Finance of respective countries & www.tradingeconomics.com

Type of data: Secondary

INTRODUCTION

MOODY'S Investors Service kept its gauge for G20 financial development at a little more than 3 percent during the current year and next, yet cautioned of geopolitical dangers, US protectionism and overflows from worldwide money related fixing and China's deleveraging measures.

For business sectors, it cautioned of dangers of expanded instability because of generally raised resource costs and wide financial specialist desires that loan costs would stay low even as the Federal Reserve and the European Central Bank said they were planning to begin moving back whimsical jolt.

While raising its China conjectures, the office cautioned the economy has turned out to be progressively dependent on new obligation to encourage development. The office minimized China's appraisals by one score to A1 in May, saying the money related quality of the economy would disintegrate in coming years.

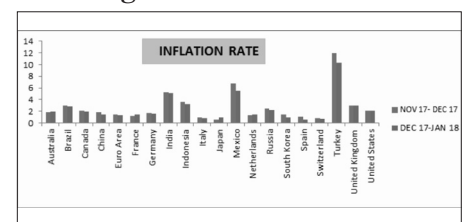
The office updated its India gauge marginally lower to 7.1 percent as the administration's demonetisation move a year ago prompted a while of intense deficiencies for assembling and development firms specifically, in spite of the fact that it said it anticipated that the effect would ease in coming months.

ANALYSIS&INTERPRETATION

1. INFLATION RATE

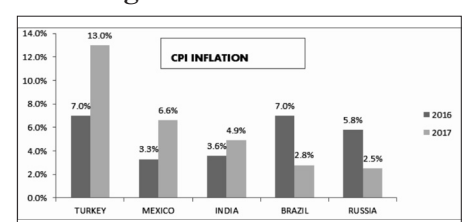
Inflation has been higher in 2017 in most of the countries which may be symptomatic of a global economic recovery which has pushed up prices. Countries like Turkey and Mexico had drastically showed up high inflation rate as compare to previous year 2016.

Figure 1: Inflation Rate



Source: On basis of actual data on extracted from www.tradingeconomics.com & Ministry of Finance of respective countries

Figure 2: CPI Inflation



Source: On basis of actual data on extracted from www.tradingeconomics.com & Ministry of Finance of respective countries

In Turkey most analysts trust that inflation could keep in single-digits for 2 or 3 months nonetheless can endure in twofold digits during 2018. In the interim, due to inflation, the legislative assembly toward the start of this current year failed to raise taxes on things, for instance, tobacco that it had done antecedently. This means that it's involved concerning the inflation

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outlook. As annual food inflation was terribly high last year, so a correction in food costs was wide anticipated and so there was decline in food costs thanks to uncommon climatic conditions, vegetable costs, that saw a 23.6 % year-on-year increase at the top of Gregorian calendar month 2017, fell by 6.3 % in January. Thanks to seasonal discounts, consumer goods and footwear costs conjointly declined within the month.

Inflation has come down sharply for countries like Brazil, South Africa and Russia. For instance Brazil is currently experiencing an uneven recovery from its last two years of recession and high inflation. Inflation has fallen since 2016, due to the positive impact of supply-side factors, including improved agricultural output and a decline in electricity prices which has led to the Central Bank of Brazil to slash interest rates. The inflation rate has been slowing for eleven consecutive months due to moderate economic recovery, which is keeping prices at low levels in 2017. Subdued economic activity has also supported the decline in inflation so far in 2017.

As of late, high food inflation in India is one of the components which bring to non-food inflation and total inflation. Likewise, the oil factor has worked its way through and added to inflationary pressures. The cost of oil and inflation are regularly observed as being associated in a circumstances and end results relationship. The effects of oil price vacillations are distinctive in oil sending out and in oil bringing in nations. For the oil exporting countries, the increment of oil prices constituted good news while the increment of oil prices constituted bad news for oil importing countries. For instance, India was known as the most consumption on the oil among the oil importing countries in the world. Since the early of the 21st century, the prices of oil has rising heavily. This contributed to the higher inflation as

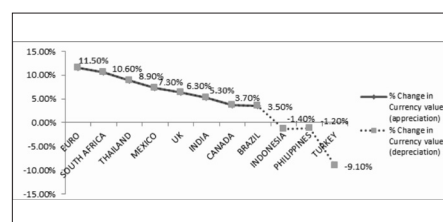
the cost of production increased. The increment of cost of production led to the increment of fuel costs and then caused the decrement of supply.

In general, it may be concluded that inflation has tended to rise in most countries which is one reason why some of the central banks have geared up for a combination of monetary tightening including increase in policy rates as was done by the Federal Reserve and Bank of England this year.

2. HOW ABOUT MOVEMENT IN EXCHANGE RATES?

The euro has risen in excess of 14 percent against the dollar so far this year because of positive thinking about financial development and less political dangers, and this climb is relied upon to continue, as indicated by a few market examiners. Europe's enhancing development appears differently in relation to the U.K., which is losing financial force as it keeps on dealing with Brexit transactions. While a more grounded euro is a worry for exporters as more costly money makes their items more costly and therefore less alluring.

Figure 3: Movements in Exchange Rates



Source: On basis of actual data on extracted from www.tradingeconomics.com & Ministry of Finance of respective countries

And the Indian rupee has appreciated more than the most countries like Canada, Brazil, etc and the rupee was at the median level of change in exchange rate at 5.3% because of strong capital inflows in 2017. These include portfolio inflows into equities and, more importantly, debt markets. They also include higher levels of foreign direct

investment and instruments. These are driven somewhat by worldwide liquidity and PARTLY by the enhancing basics of the Indian economy. The Reserve Bank of India's (RBI) relatively hawkish stance on the policy rate has attracted funds searching for yield.

While the rupee has appreciated more than 5.3% so far in 2017, the U.S. dollar index has declined 8.9% this year that suggests reason for concern, from the point of view of the competitiveness of exporters.

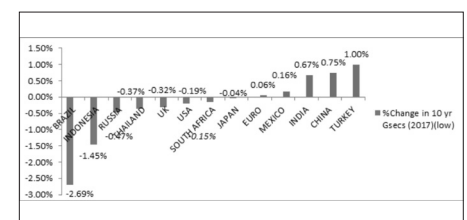
Though the statistics have drastically changed in India in recent months of 2018 as the Punjab National Bank told Indian stock exchanges it has been the victim of an elaborate fraud that could cost the stretched banking system Rs 11,400 crore in the very least.

This announcement of the country's biggest banking fraud seems to have shaken the Indian public lenders thus this glaring oversight gaps in India's banking system now threaten to send the rupee lower.

The rupee could trade in the range of 64.50 and 65.20 to a dollar in 2018, analysts said. If the rupee fall continues in 2018, this could lead to a point of a bigger depreciation in the rupee.

3. HOW GOVERNMENT IS PLAYING WITH INTEREST RATES?

Figure 4: Movement in 10yr GSecs (%)



Source: On basis of actual data on extracted from www.tradingeconomics.com & Ministry of Finance of respective countries

Interest rate direction in the market is best represented by the 10-years government bond which is the risk-free rate.

India was an outlier with an increase of 0.67% in 2017 as compare to 2016, even though this has been more of a yearend phenomenon as the RBI has been lowering and not increasing rates. This was so as the market has gotten the message that the RBI would not be lowering rates any further due to the hawkish stance taken on inflation. The six-member fiscal arrangement board which had consistently chosen to keep the repo rate unaltered at 6.25 percent toward the beginning of April, had raised an auxiliary rate called the reverse repo rate, which is utilized to empty overabundance funds out of banks. The board, which plans to cut down inflation to 4 percent in the medium term, kept up its hawkish position on inflation, with most individuals communicating worry over upside dangers to core inflation. Besides core inflation, a demand pick-up on a government salary increment and reflation risk from commodities globally were the key reasons that all panel members cited for voting to keep the repo rate unchanged.

A Reuter's poll of 35 economists conducted from April 10-19 showed that the RBI would keep the repo rate unchanged until October-December of 2018 and the next move would be a cut.

Turkey witnessed the highest increase of 1% followed by China with 0.75% in 2017 though Turkey's central bank kept its main interest rates unchanged in current months in 2018 as expected, to keep the cost of lending elevated until there's a marked improvement in inflation. Price gains accelerated to double digits last month, which the bank said showed that the past depreciation of the lira is still feeding into consumer prices. The currency has recovered more than 10 percent

from a record low in January, after the regulator raised the cost of borrowing to the highest level in at least six years.

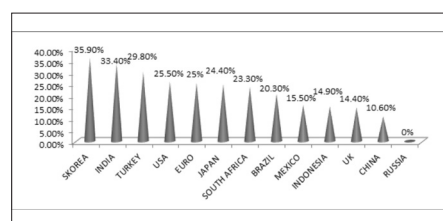
The sharpest decline in rates was witnessed in Brazil due to the gradual economic recovery as the government struggles to pass austerity measures and inflation remains stubbornly below an official target.

However, both USA and UK have witnessed declines in the yields even though the central banks have increased interest rates as in USA, the country has followed the zero interest rate policy (ZIRP) from 2008 as a mechanism for boosting spending, borrowing and investment but now the Federal Reserve looks ready to raise interest rates in order to have slow and steady economic growth though the worries have intensified since Donald J. Trump's election. Investors are betting Mr. Trump will collaborate with Congress on tax cuts and other measures that could increase economic growth. He has also proposed new barriers to imports, which could drive up inflation further in later times.

4. WHAT ARE THE INVESTORS TAKE ON THESE COUNTRIES?

It appears that the almost all the countries have positive markets and had give good returns to the investors despite economic growth has not been all pervasive across countries.

Figure 5: Change in Stock Indices (%) (2017)



Source: On basis of actual data on extracted from www.tradingeconomics.com & Ministry of Finance of respective countries

India is one of the top performers with increase of 33.4%, being lower than only South Korea where markets were up by 35.9% in 2017, although the scam of Punjab national bank and Fed reserve movement of increasing interest rate has build a negative sentiment in global investors and Investors are now bracing for an extended fall, with foreign portfolio investors selling their holdings. Between February 15 and 20, abroad financial investors have net left Rs 2,150 crore worth of debt securities on the whole in a three-day offering binge, indicate information from National Securities Depository. Overseas investors were seen short-selling the rupee against the dollar also.

All others had increases of above 10%. Quite clearly, the stock markets have been winners everywhere providing attractive returns.

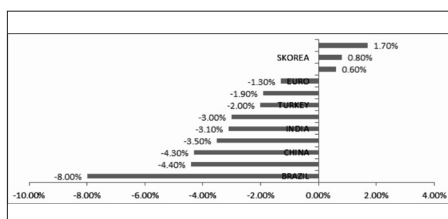
Russia was the only market where there was virtually no change this is due to the financial crisis (2014-2017). A decline in confidence in the Russian economy caused investors to sell off their Russian assets, which led to a decline in the value of the Russian ruble and sparked fears of a Russian financial crisis. The absence of trust in the Russian economy originated from no less than two noteworthy sources. The first is the fall in the cost of oil in 2014. Unrefined petroleum, a noteworthy export of Russia, declined in cost by about half between its yearly high in June 2014 and the second is the result of international economic sanctions imposed on Russia following Russia's annexation of Crimea and the Russian military intervention in Ukraine.

5. FISCAL DEFICIT

Fiscal deficits have been there in most of these regions with only 3 countries running surpluses – Germany, South Korea, and Hong Kong. The others have deficits with the median for this group of countries being 2.8%. It may be pointed out that some of

these countries like USA, UK, Japan and Euro region have been following nonconventional monetary policy involving buyback of bonds coupled with higher deficits to boost their economies post the financial and sovereign debt crises.

Figure 6: Fiscal deficit as % GDP 2017



Source: On basis of actual data on extracted from www.tradingeconomics.com & Ministry of Finance of respective countries

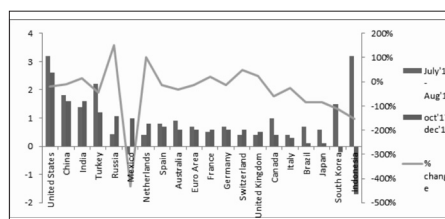
India being on 3.10% in 2017 though have decided to bring the economy back on track, even if is at the cost of fiscal deficit. However, reports suggest that the Finance Minister is going to stick to fiscal deficit target and may sell bonds to raise funds for extra spending. In the Budget 2018 Government has decided to keep the corporation tax rates high, the government is mopping up more revenue than last year and is also simultaneously spending more on providing subsidy to the needy compared to last fiscal. The Finance Minister in February likewise planned to bring 5.8 trillion rupees up in 2017-18 through bond deals to connect the financial shortfall of 3.2 percent of GDP.

Capital flows is the movement into a country of capital resources for the purpose of investment, trade or business production. It has significant role for every national economy, regardless of its level of development. Most of the countries are able to maintain their cash inflows although a high fluctuation can be seen in the countries like US and Russia which may be due to the political as well as economic reforms.

6. NOW WHAT ABOUT GDP GROWTH RATE?

Real gross domestic product (GDP) in the G20 area grew by 1.0% in the third quarter of 2017, the same rate as in the previous quarter but with wide variation across countries, according to provisional estimates.

Figure 7: GDP GROWTH RATE



Source: On basis of actual data on extracted from www.tradingeconomics.com

Growth accelerated strongly in Korea (to 1.5%, from 0.6%), and to a lesser extent in India (to 1.6%, from 1.4%) and Germany (to 0.8%, from 0.6%). Growth also picked up marginally (to 0.4%, from 0.3%) in Italy and the United Kingdom and was stable in Indonesia (1.2%) and the United States (0.8%).

On the other hand, growth slowed markedly in Turkey (to 1.2%, from 2.2%), Russia (to 0.1%, from 1.0%), Canada (to 0.4%, from 1.0%), Brazil (to 0.1%, from 0.7%) and Mexico (to minus 0.3% from 0.3%). Growth also weakened in Australia (to 0.6%, from 0.9%), South Africa (to 0.5%, from 0.7%), China (to 1.7%, from 1.8%), Japan (to 0.6%, from 0.7%) and France (to 0.5%, from 0.6%).

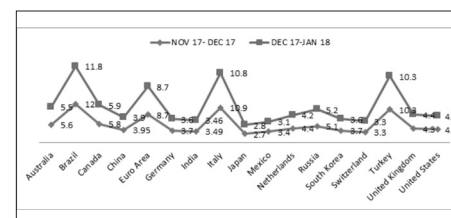
Year-on-year GDP growth for the G20 area increased to 3.9% in the third quarter of 2017 (from 3.7% in the previous quarter), with Turkey (10.2%) recording the highest growth and South Africa the lowest (1.0%).

7. CAN ECONOMY BE AFFECTED BY THE UNEMPLOYMENT RATE?

Notwithstanding various indicators,

for example, GDP, inflation and interest rates, the joblessness rate of a nation is an extremely normal measure for deciding the wellbeing of an economy. With the increase rates of unemployment other economy factors are significantly affected, such as: the income per person, health costs, quality of health-care, standard of living and poverty. As the pattern of monthly analysis shows that countries like Brazil, Euro, Italy and Turkey have the high unemployment rate whereas most of the countries has the median of 4.5%.

Figure 8: UNEMPLOYMENT RATE



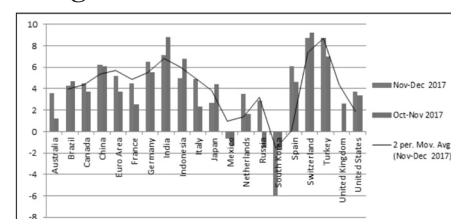
Source: On basis of actual data on extracted from www.tradingeconomics.com & Ministry of Finance of respective countries

The unemployment rate in India is 3.7% which is still lower than China by 3.9%. Thus, India had performed slightly well in terms of job creation in 2016.

8. WHAT ABOUT INDUSTRIAL PRODUCTION?

Industrial production in India measures the yield of business entities coordinated in various industrial division of the economy like mining, utilities, fabricating, manufacturing and so forth. In India, of aggregate yield has a place with assembling/manufacturing, 14.4 percent for mining and digging and power for 8 percent.

Figure 9: Industrial Production



Source: On basis of actual data on extracted from www.tradingeconomics.com & Ministry of Finance of respective countries

Australia has relied too much on the mining boom and has lost an opportunity to foster competitive industries. Australia's recent mining boom was no exception. Following the pattern of resource-based economies, a commodity price hike increased their terms of trade without any special effort—adding 15 per cent to their national income over a six year period while the rest of the world languished in recession. Australia has squandered a once in a generation chance to reposition its economy for sustainable growth.

Brazil's industrial output expanded in 2017 for the first year in four due to a strong pickup in auto production. The outlook for Brazilian manufacturers has turned favorable as borrowing costs fall and growth in Latin America's largest economy looks set to shift into a higher gear this year. Brazil's most profound depression in decades left industrial organizations pondering high debt loads and idle capacity, yet booming car exports lit up their fortunes a year ago.

In Turkey, industrial production measures the yield of organizations incorporated in industrial segment of the economy. Manufacturing is the most essential division and records for 84 percent of aggregate generation & production. The biggest fragments inside Manufacturing are: Food items (16% of aggregate production); essential metals (11%); motor engine vehicles, trailers and semi-trailers (9%); material (8%); other non-metallic mineral things (6%); elastic and plastic things (5%); chemical compounds and synthetic items (5%); electrical gear (5%); wearing attire (5%); and created metal things (5%).

Switzerland witnessed an increase in industrial production by 8.7% yoy in the

last quarter of 2017, after an upwardly altered 9.2 percent sharp increase in the previous three-month time span. Yield growth slowed for assembling (9.3% versus 9.7% in Q3), mining and quarrying (1.2% versus 4.2%) and power supply (5% versus 5.9%).

CHALLENGES

1. A major challenge will be to upgrade entire interconnected production systems

A test for firms in developing nations will be their capacity to update machines, processing plants and business ICT frameworks, which are required for interconnected generation. NPR advancements work with resiliencies, and with specialized benchmarks and conventions, that developing nation firms are frequently new to. Also, Next Production Revolution (NPR) innovations regularly require a ceaseless continuous wellspring of energy, which isn't accessible in some developing nations.

2. NPR may be restricted by financial services in some countries

New and emerging technologies in production require huge financial outflows, which are generally not recoverable in a short span of time.

3. Developing countries will need comprehensive telecommunications infrastructures

Completely profiting by the Next Production Revolution (NPR) requires far reaching, solid and secure media communications framework, including high data transfer capacity broadband, remote systems and versatile and landline broadcast communications systems. Providing coverage to remote rural areas, particularly in

large countries, will facilitate communication between local producers and consumers and the development of integrated domestic markets. Financing Next Production Revolution (NPR) investments can thus necessitate: a range of financing institutions, such as venture capital firms and development banks; machinery-related term lending; and, specialized SME and start-up lending. Such a breadth and depth of financial services is only available in a few countries.

4. Rethinking investment policy for the Next Production Revolution (NPR)

Most developing countries have been able to count on some form of foreign investment in their development strategies. The Next Production Revolution (NPR) could change this and will require careful attention to the design of investment policies. In 2014, India adopted the Make in India and National Manufacturing Policy initiatives.

Also, in 2015 China embraced Made in China 2025 (along these lines renamed China Manufacturing 2025), which intends to overhaul Chinese industry and create green and cutting edge manufacturing in fields, for example, biomedicine, advanced apparatus, vitality sparing vehicles and IT.

RECOMMENDATIONS

Developing nations are numerous and profoundly financially and economically diverse. Large Developing economies, middle-income economies and least developed nations have distinctive absorptive limits and won't have the capacity to acclimatize Next Production Revolution (NPR) technologies similarly.

Fruitful absorption of Next Production Revolution (NPR) advancements in developing nations could raise efficiency, productivity, and invigorate sustainable economic and financial growth. Infact, some new generation advancements and production technologies are suited to economic conditions frequently often found in developing countries. For instance, certain state-of-the-art robots are self operated as well as relatively inexpensive. China, for instance, is now the world's biggest client of mechanical and industrial robots and somewhere in the range of 3 000 robot makers report beginning activities in China in the previous five years (Xinhua, 2016)

Notwithstanding, NPR advancements and technologies also raise the likelihood of economic disruption in developing countries. As the advances in technologies incite a realignment of relative costs and the improvement of new plans of action, the low wage favored outlook of a couple of countries might be off-set, provoking a move in global value chains.

CONCLUSION

- India showed a tremendous growth in 2017 as number of global investors showed there interest in rupee leading to higher capital inflows and appreciation in currency but due to the latest Punjab National Bank Scam figures have changed drastically for India and other factors such as Federal Reserve decision of increasing interest rate which was zero for so long have undermined the sentiments of global investors and with the dollar gaining strength against major currencies. Money managers find this level attractive enough to bet on the world's safest securities.
- Currencies have by and far strengthened against the dollar in 2017. But in 2018 the USD could be expected to strengthen

considering that the economy is gaining momentum and the Federal Reserve would be increasing rates further in upcoming months in 2018.

- Despite of all the markets having good returns in 2017 it would be tough to predict the future movement of the indices due to the uncertainties happening in 2018 in all the countries.
- India has unemployment rate as 3.7 % still lower than China by 3.9% thus India had performed slightly well in terms of job creation in 2016, when a "majority" of the 13.4 million new employment created in Southern Asia happened in the country
- In GDP, Turkey (10.2%) recording the highest growth and South Africa the lowest (1.0%). India comes in top 4 in terms of GDP growth among G20s.
- Most of the countries are able to maintain their cash inflows although a high fluctuation can be seen in the countries like US and Russia which may be due to the political as well as economic reforms.
- Turkey witnessed the highest increase of 1% in interest rates followed by China with 0.75% in 2017
- Inflation has tended to rise in most countries which is one reason why some of the central banks have geared up for a combination of monetary tightening

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RELATIONSHIP BETWEEN SELF REGULATION AND QUALITY OF LIFE AMONG THE ADOLESCENTS

Meera Anand*

ABSTRACT:

Adolescence is commonly characterized by issues such as rebellious behavior, lying, cheating, school performance problems, negative attitudes, disobedience and disrespect, sibling rivalry, drug and alcohol abuse, pressures from peers, depression, and issues of emotional and psychological disturbances. This marks the need, role and contribution of them being assisted in rightly self regulating and emotionally channelizing their behavior for a holistic and potentially worthwhile growth and development. This paper looks at the issues, stages and various influences that a child experiences throughout their development into functioning adults.

Keywords: Adolescents, Child psychology, Self regulation

INTRODUCTION

Adolescent and child psychology involves looking at the issues, stages and various influences that a child experiences throughout their development into functioning adults. Adolescent psychology can be divided into two main areas - the actual process of psychological development that the child goes through when growing up and the analysis and treatment of the various problems that a child may face throughout their development.

Adolescence is commonly characterized by issues such as rebellious behavior, lying, cheating, school performance problems, negative attitudes, disobedience and disrespect, sibling rivalry, drug and alcohol abuse, pressures from peers, depression, and issues of emotional and psychological disturbances. This marks the need, role and contribution of them being assisted in rightly self regulating and emotionally channelizing their behavior for a holistic and potentially worthwhile growth and development. Self-regulation refers to 'self-generated

thoughts, feelings and actions that are planned and cyclically adapted to the attainment of personal goals.

Life for many adolescents is a painful tug of war filled with mixed messages and conflicting demands from parents, teachers, friends, family and oneself. Growing up, negotiating a path between independence and reliance on others is a tough business. Adolescence can be a time of both disorientation and discovery. It describes the teenage years between 13 and 19 and can be considered the transitional stage from childhood to adulthood. However, the physical and psychological changes that occur in adolescence can start earlier, during the preteen or "teen" years (ages 9-12). This transitional period can bring up issues of independence and self-identity and is a particularly hard time for children as they experience all kinds of changes both in their body and mind. Furthermore, they often feel misunderstood, searching for identity as they are constantly struggling to leave behind their childhood heading towards stepping into the next

developmental phase in their life. This marks the need, role and contribution of them being assisted in rightly self regulating channelizing their behavior for a holistic and potentially worthwhile growth and development. The present investigation is a leap forward in the same direction.

Self-regulation is the ability to monitor and manage your energy states, emotions, thoughts, and behaviors in ways that are acceptable and produce positive results such as well-being, loving relationships, and learning. Developing this ability requires self-awareness, emotional intelligence, efficient filtering of sensory stimulation, coping effectively with stress, relating well to others, and sustaining focus. It is one of the big developmental tasks of childhood.

The most distinguished characteristic of the mental function in humans is the ability to self-regulate, which is based on language acquisition and social reciprocity. Humans can use self-regulation to regulate their own mind

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and establish an ego. This self-regulation is unique to humans. It is realized by the highly developed prefrontal cortex and is established during adolescence. Adolescence is the phase in life when the prefrontal cortex matures and is thus an important period for establishing an ego. An inappropriate maturation of self-regulation among adolescents, on the other hand, could lead to the prevalence of serious mental health problems in modern society.

Self-regulation refers to 'self-generated thoughts, feelings and actions that are planned and cyclically adapted to the attainment of personal goals' (Zimmerman, 2000). In popular discourse, the term 'self-regulation' suggests self-control or self-discipline. However, research into self-regulated learning extends beyond the issue of how learners resist impulses or regulate their concentration. Self-regulated learning includes processes such as: 'setting goals for learning, attending to and concentrating on instruction, using effective strategies to organize, code and rehearse information to be remembered, establishing a productive work environment, using resources effectively, monitoring performance, managing time effectively, seeking assistance when needed, holding positive beliefs about one's capabilities, the value of learning, the factors influencing learning and the anticipated outcomes of actions, and experiencing pride and satisfaction with one's efforts..

It is being able to control your emotions and responses to situations and other people. It includes the ability to concentrate, become involved in group activities, restrain disruptive and impulsive behavior, and work autonomously – and its impact on learning and attainment. The core competencies of self regulations are:

- Emotional self-control – controlling impulsive emotions.
- Trustworthiness – being honest

and taking action that is in line with your values.

- Flexibility – being able to adapt and work with different people in different situations.
- Optimism – the ability to see opportunities in situations and the good in other people.
- Achievement – developing your performance to meet your own standards of excellence.
- Initiative – taking action when it is necessary.

As per my understanding self-regulated students take time to plan. They think about their academic goals and consider whether the goals are relevant, valuable, rational and achievable. Once they set a goal, these students are motivated to achieve the goal and act autonomously to do so. They exert effort, feel confident and ensure to succeed. Self-regulated adolescents understand and use problem solving strategies. They select strategies to achieve their goals, sequence the strategies selected, set standards to gauge the quality of their performance, manage their attention and monitor the degree to which they are acting in accordance with their standards and making progress in achieving their goals. If they become frustrated along the way, these students work to overcome the problem. They do not procrastinate and are aware of discrepancies among their actions, goals and performance standards self-regulated learners engage in self-evaluation. They compare the results of their efforts with their intentions, attach meaning to the outcome, and think about whether they have acted according to their own standards or principles. When pleased with the results, these youth experience positive emotions that further enhance their motivation. When they are not happy with the results, they often become distressed but when they do, they can use that feeling as motivation to improve.

Quality of life (QOL) is an important subjective measure of one's condition. QOL encompasses several domains of subjective experience including physical ability, psychological well-being, social interactions and school or work performance. Further research however, is needed to comprehend the same. In basic terminology we in our society have recently become more concerned about quality in general, for example, in product development and manufacturing and consumer services. This development has seen parallels in considerations for the human condition. Examples are concerned about the contribution of services, programs, and policies to the life experience of individuals. Recently, there has been a sharp increase in research concerning the role of emotion-related self-regulatory processes in children's school readiness and academic outcomes that ultimately improves the quality of life.

As per adolescents, quality of life is about the positive cycles of life. Feeling good, being satisfied with oneself and having an overall positive attitude are in most cases described as the starting points of a positive cycle. To get into and stay in the positive cycle, a positive self-image, good friends and good family relations are important. Consequently, adolescents' quality of life is threatened when these factors are negative. Friends seem to be the most significant factor. It is extremely difficult to be without friends and none of the adolescents would admit that they were, not even to themselves, although it was rather obvious in some cases. Self-image and popularity are factors associated with the ability to get friends.

The complete understanding the adolescent's view of quality of life emphasizes the importance of focusing on their psychosocial health and in particular their peer relations, to promote and sustain their quality of life.

Self-regulation is essential to the learning process (Zimmerman, 2008). It can help students create better learning habits and strengthen their study skills, apply learning strategies to enhance academic outcomes, monitor their performance, and evaluate their academic progress. Teachers thus should be familiar with the factors that influence a learner's ability to self-regulate and the strategies they can use to identify and promote self-regulated learning (SRL) in their classrooms. In addition to self-regulation, motivation can have a pivotal impact on students' academic outcomes (Zimmerman, 2008). Without motivation, SRL is much more difficult to achieve.

All of these researchers have informed my research study and in particular, the work of Zimmerman has shaped my theoretical framework considerably. From these readings, I developed a basic understanding of the descriptors of a self-regulated learner. I was now connecting this theory with my present research.

Duncan et al. (2007); McClelland et al. (2000) from their studies concluded that there exists a positive overall relationship between self-regulation and academic achievement. Children and young people with more adaptive personal skills and learning resources are more likely to succeed academically. Furthermore, individual elements of self-regulation – e.g. attitudes towards learning, attention and persistence – are also related to academic achievement (Yen et al., 2004). Duncan et. al further indicated that aspects of self-regulation such as attention, persistence, flexibility, motivation and confidence can all be improved as a result of effective teaching and learning practices. Research has also indicated that stresses associated with low income, such as residential instability, psychological distress among adults and low-quality childcare settings, may hamper the development of self-regulation skills.

A study conducted by Saranya & Velayudhan (2008) among 30 male and 30 female university students regarding gender differences related variables revealed that there exists no significant difference in self-awareness, self regulation, social awareness and social skills among day scholar boys and girls (Source: Cited in Review of Literature, 2010)

Though, the above review of literature has indicated that gender has contributed to self regulation, but there is dearth of related literature on how gender has impacted both self regulation and quality of life cumulatively, which is a major gap in research. Taking this into consideration, the present investigation is an ambitious attempt to quantify the same.

Ponitz, et. al. (2009) examined gender differences in self-regulation in the fall and spring of kindergarten and their connection to gender differences in 5 areas of early achievement: applied problems (math), general knowledge, letter–word identification, expressive vocabulary, and sound awareness. Behavioral self-regulation was measured using both an objective direct measure (N = 268; Head-Toes-Knees-Shoulders task) and, for a subsample of children, a teacher report of classroom self-regulatory behavior (n = 156; Child Behavior Rating Scale). Results showed that girls outperformed boys in both assessments. Although gender differences in self-regulation were clear, no significant gender differences were found on the 5 academic achievement outcomes, as measured by the Woodcock–Johnson III Tests of Achievement.

Researchers have endorsed adolescence to be the most vulnerable stage as involved in different health risk-taking behaviours. As maturation in adolescence is incomplete and often contributes to impulsivity, sensation-seeking, depression and inefficacious

coping resulting into deficit quality of life. Several research studies have reported that ability to form relationship, to solve problems, to develop a sense of autonomy and to have a plan and hope in life are important aspects affecting physical, mental and social health. There has been very less work done in India related to the reasons associated with self regulation and quality of life. Quality of life (QOL) is an important subjective measure of one's condition. QOL encompasses several domains of subjective experience including physical ability, psychological well-being, social interactions and school or work performance Statistics (NFHS, 2005-06) indicate that youth of India in the age group 15-19 years having great knowledge of quality of life, but many adolescents tend to be less informed that they often have a sense of having unlimited power, feelings of invulnerability and impulsiveness that can lead to reckless behavior. A greater understanding of youth motivation in engaging in these behaviors and also understanding of psychosocial factors will help in designing tailored intervention programmes as they are required for tackling major health risk-taking behaviours that will put them in a better position..

OBJECTIVE OF THE STUDY

1. To study the gender differences on self-regulation among adolescents.
2. To study the gender differences on quality of life among adolescents.
3. To study the changing perspective between the self regulation and quality of life among adolescents.

Hypothesis: On the basis of review of literature and objectives, the following hypotheses have been formulated.

1. Female adolescents will be higher on self-regulation than male adolescents.
2. Female adolescents will be higher on quality of life than male adolescents.

3. There would be a positive relationship between self regulation and quality of life among adolescents

METHODOLOGY

Sample: The convenient random sample for the present investigation comprised 200 adolescents (100 girls and 100 boys), collected from school in Chandigarh in the age range of 14-18 years from 9th to 12th std. Prior consent from school authority will be taken for the participation in this study.

Design:

Gender	Self Regulation	QOL
high		
BOYS		
low		
high		
GIRLS		
low		

Tools:

Self Regulation Questionnaire (SRQ; Brown, Miller & Lawendowski, 1999): Self Regulation Questionnaire is a self report inventory designed to assess self-regulatory processes. It consists of 63 items to be answered on a likert scale ranging from 1 (Strongly Disagree) to 9 (Strongly Agree). The test-retest reliability of S.R.Q (that was administered twice with a gap of 48 hours on a sample of 83 people with varying levels of alcohol problem severity) was .94 and the internal consistency was .91.

Quality of life inventory: This form of the Quality of Life Scale (QOLS) has 16 items rather than the 15 found in the original Flanagan version. Item #16, "Independence, doing for yourself" was added after a qualitative study indicated that the instrument had content validity in chronic illness groups but that it needed an item that reflected the importance to these people of remaining independent and

able to care for themselves. It has also been used to track changes in individuals over the course of therapy. Higher scores indicate a higher overall quality of life.

Procedure:

It will be conducted in two phases: The convenient random sample for the present investigation comprised 200 adolescents (100 girls and 100 boys), collected from school in Chandigarh in the age range of 14-18 years from 9th to 12th std during the academic year 2018-19.. Prior consent from school authority has been taken for the participation in this study. The data were collected randomly from participants studying in the private school of Chandigarh. First of all Investigator had established the rapport with the students before the actual administration of the self-regulation questionnaire. The investigator had explained briefly, but distinctly the purpose of the study and asked students to fill up SRL and QOL questionnaire given in a separate Performa. The respondents were assured that their responses would be kept confidential and that only the researchers would have access to them.. All students responded to the questionnaires at their own pace during regular class. Since students were met in different classes, they were instructed to give responses focusing on this specific course. Due care was taken that the respondents did not leave any item unmarked. Finally, scoring of each questionnaire was done manually.

RESULTS AND DISCUSSION

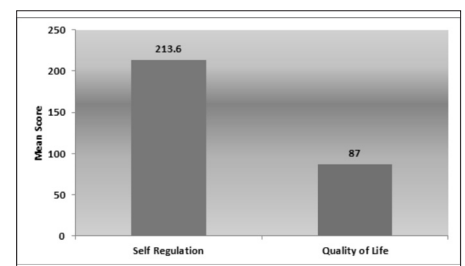
For the sake of convenience, data have been presented in tabular form. The data was analyzed in accordance with the objectives and hypotheses of the study. The raw data was put to statistical treatment. The hypothesis framed were statistically tested and accordingly accepted or not accepted. The present study aimed at investigation "Changing perspective of relationship between self

regulation and quality of life among adolescents".

TABLE 1: Descriptive Statistics of Self Regulation and Quality of Life among Adolescents

	Self-Regulation	Quality of Life
N	200	200
Mean	213.60	87.00
Median	212.50	89.00
Std. Deviation	16.84	12.74
Skewness	0.36	-0.54
Std. Error of Skewness	0.24	0.24
Kurtosis	-0.32	0.07
Std. Error of Kurtosis	0.48	0.48
Minimum	181.00	50.00
Maximum	257.00	110.00

FIGURE-1: Showing Descriptive Statistics of Self Regulation & Quality of Life among Adolescents



For Self-Regulation, Mean and SD were 213.60 and 16.84 respectively. The value of skewness was 0.36, which depicts the distribution is positively skewed and is less than ± 1 . This value is within the acceptable limit of normality and may be acceptable as having skewness of moderate degree and the value of Kurtosis was -0.32; which indicated that the curve was platykurtic. Thus, it may indicate towards the fact that the distribution of Self-Regulation is approximated to normal distribution. Maximum and minimum scores of Self-Regulation were 257 and 181 respectively.

For Quality of Life, Mean and SD were 87 and 12.74 respectively. The value of skewness was -0.54, which depicts the distribution is negatively skewed and is less than ± 1 . This value is within the acceptable limit of normality and

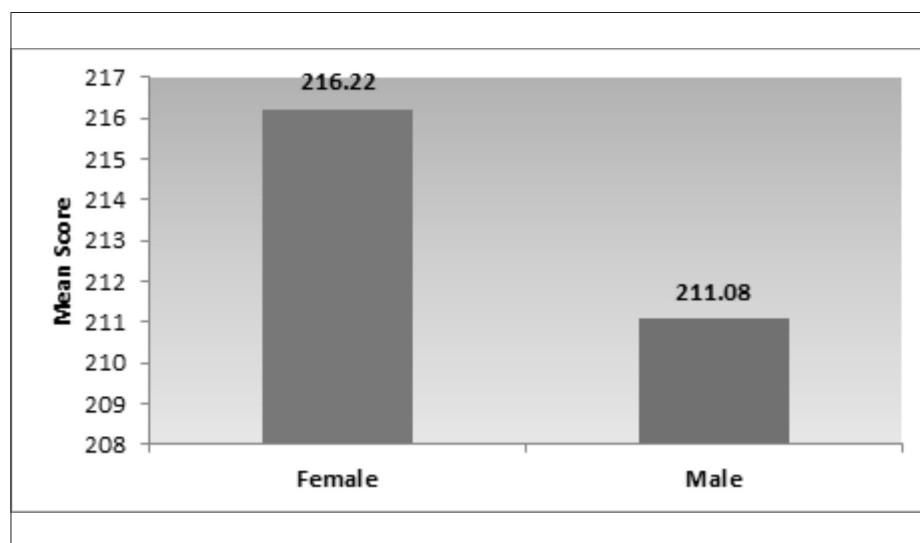
may be acceptable as having skewness of moderate degree and the value of Kurtosis was 0.07; which indicated that the curve was leptokurtic. Thus, it may indicate towards the fact that distribution of Quality of Life is

approximated to normal distribution. Maximum and minimum scores of Depression were 110 and 50 respectively.

TABLE 2: DIFFERENCE ON SELF-REGULATION AMONG FEMALE AND MALE ADOLESCENTS

Gender		N	Mean	Std. Deviation	t-value	p-value
Self-Regulation	Female	100	216.22	18.576	1.524	.131
	Male	100	211.08	14.727		

FIGURE-2: SHOWING DIFFERENCE ON SELF-REGULATION AMONG FEMALE AND MALE ADOLESCENTS



Result of table 2 revealed that there is non-significant difference on Self-Regulation among female and male adolescents as t-ratio ($t=1.524$) was found insignificant at 0.01 level. In other words, female and male adolescents have no difference between each other on Self-Regulation.

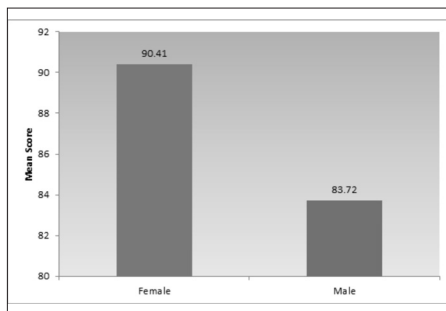
For female adolescents, mean scores and standard deviation were 216.22 and 18.576 and mean scores and standard deviation for male adolescents were 211.08 and 14.727 respectively. When mean scores were compared, it was found that Self-Regulation of female adolescents is little high as compared to the Self-Regulation of male adolescents.

Therefore, Hypothesis-1 that "Female Adolescents will be higher on Self-Regulation than Male

Adolescents" is accepted.

TABLE 3: Difference on Quality Of Life among Male And Female Adolescent

Gender		N	Mean	Std. Deviation	t-value	p-value
Quality of Life	Female	100	90.41	11.669	2.682	.009**
	Male	100	83.72	12.979		

FIGURE 3: Showing Difference on Quality Of Life among Female and Male Adolescents

Result of table 3 revealed that there is significant difference on Quality of Life among female and male adolescents as t-ratio ($t=2.682$) was found significant at 0.01 level. In other words, female and male adolescents have significant difference on Quality of Life.

For female adolescents, mean scores and standard deviation were 90.41 and 11.669 and mean scores and standard deviation for male adolescents were 83.72 and 12.979 respectively. When mean scores were compared, it was found that Quality of Life of female adolescents is high as compared to the Quality of life of male adolescents. Therefore, Hypothesis-2 that “Female Adolescents will be higher on Quality of Life than Male Adolescents” is accepted.

TABLE 4: Relationship between Self Regulation and Quality of Life among Male Adolescents

Correlations			
Self-Regulation		Quality of Life	
Self-Regulation	Pearson Correlation	1	.274
	p-value		.059
	N	100	100
Quality of Life	Pearson Correlation	.274	1
	p-value	.059	
	N	100	100

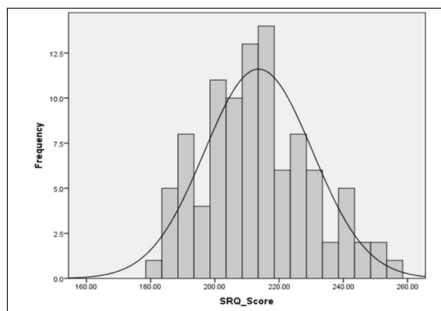
FIGURE 4: Showing relationship between self-regulation and quality of life among male adolescents

Table-4 represents the details of correlation between Self-Regulation and Quality of life of male adolescents which is found to be insignificant at 0.05 level of confidence as their Pearson correlation value was 0.274, which means Self-Regulation in male is positively weak and non-significant relationship with Quality of Life.

TABLE 5: Relationship between Self-Regulation and Quality of Life among Female Adolescents

Correlations			
		SRQ_Score	QOL_Score
Self-Regulation	Pearson Correlation	1	.487**
	p-value		.000
	N	100	100
Quality of Life	Pearson Correlation	.487**	1
	p-value	.000	
	N	100	100

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

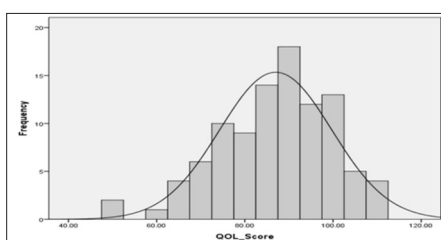
FIGURE 5: Showing Relationship between Self-Regulation and Quality of Life among Female Adolescents

Table-5 represents the details of correlation between Self-Regulation and Quality of life of female adolescents which is found to be significant at 0.01 level of confidence as their Pearson correlation value was 0.487, which means Self-Regulation in female adolescents has positive, moderate and significant relationship with Quality of Life.

In female adolescents self-regulation has an important place to make better their quality of life or it can be said that female adolescents give more importance to self-regulation for doing better their quality of life.

TABLE 6: Relationship between Self-Regulation and Quality of Life among Adolescents

Correlations			
		Self Regulation	Quality of Life
Self-Regulation	Pearson Correlation	1	.394**
	p-value		.000
	N	200	200
Quality of Life	Pearson Correlation	.394**	1
	p-value	.000	
	N	200	200

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

Table-6 represents the details of correlation between Self-Regulation and Quality of life of adolescents which is found to be significant at 0.01 level of confidence as their Pearson correlation value was 0.394, which means Self-Regulation in adolescents has positive, moderate and significant relationship with Quality of Life.

In adolescents self-regulation can play an important role to make better their quality of life. Better or more self-regulation, better quality of life and less

self-regulation, less quality of life which means self-regulation is must to make the quality of life better in adolescents.

Therefore, Hypothesis-3, that “There would be a positive relationship between self-regulation and quality of life among adolescents” is accepted.

RECOMMENDATIONS

Following are recommendations for future research:

- To conduct a comparative cross sectional and cross cultural study on self regulation and quality of life.
- To conduct home based intervention programme for parents with specific objective of changing the home conditions relevant to self regulation and quality of life.
- Intervention programmes can be conducted for a longer period of time on larger sample.
- Govt can take up these types of educational enrichment, intervention programme and implement them at colleges.
- A longitudinal study can be conducted to examine the effect of intervention programme on self regulation and its effect on quality of life throughout the life span of the adolescents.

LIMITATION OF THE STUDY

The sample size for the study was small and was conducted upon the adolescents from the educational institute of Chandigarh only

FINDINGS

1. Male and female adolescents are significantly differing on self regulation and the self regulation level of female is higher as compare to male adolescents.
2. Male and female quality of life is differing and quality of life level of female is higher as compared to male adolescents.

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CYBER SECURITY

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ABSTRACT:

In today's world, we all use the internet. Using the internet is interesting as well as it plays a vital role in our daily life. The internet is transforming our lifestyles; it is connecting everyone to everything. The number of issues today have been created more concern within this dynamically changing landscape than cyber security. There won't be a single person who doesn't use the internet as we all have a device in our pocket, it's called smart phones. Modern trends like growing dependence on the cloud, more personal information on the internet, usage of personal devices on corporate networks, are some of the major causes behind data breaches. The terms and conditions are a set of guidelines which help in permitting personal details. Besides various measures, cyber security is still a very big concern to many. Does it describe what these terms and conditions mean? Do these terms and conditions talk about authorising our detail? Do we know what kind of details do they ask from us while accessing their websites or their product? They ask for our personal details. They basically use the data so that they can keep track of our activities for their gains. They only monitor activities which they feel would be a misuse of their website or products. This paper critically analyse the Indian laws and regulations based on cyber security and cyber crimes. This paper also focuses on challenges faced by cyber security on the latest technologies. It also focuses on the cyber security techniques, ethics and the trends changing the face of cyber security.

Keywords: Cyber security; Laws and policies.

INTRODUCTION

Today man is able to send and receive any form of data may be an e-mail or an audio or video just by the click of a button but did he ever think how securely his data is being transmitted or sent to the other person safely without any leakage of information?? The answer lies in cyber security. Today the Internet is the fastest growing infrastructure in everyday life. In today's technical environment many latest technologies are changing the face of mankind. In 1996, only 36 million people, or about 1% of the world's population, used the Internet. By the beginning of 2017, 3.7 billion people, or nearly half the world's population, were online. But due to these emerging technologies, we are unable to safeguard our private information in a very effective way and hence these days cyber crimes are increasing day by day. People around the world are becoming increasingly connected with smart devices. Sending and receiving massive amounts of data back and forth,

we rely on the transfer and storage of data on a daily basis. Hackers and cyber attackers know this and know how to steal data for their profit. Our job as an information security specialist is to defend our company's data, implementing preventative and protective measures and monitoring our data and systems. Meanwhile, with a plethora of information available, it can be difficult for businesses to know where to begin when it comes to taking measures to reduce the risks of becoming a cyber-attack victim. For businesses large and small, it is vital to be able to identify cyber security risks and effectively manage threats to information systems.

Figure 1: Digital Population Growth

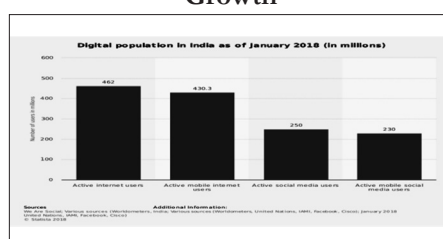
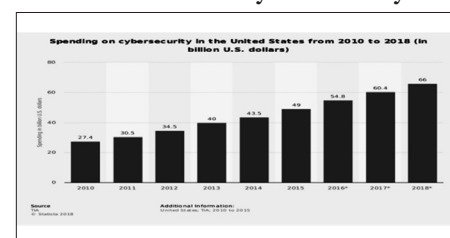


Figure 2: Money Spent by Countries on Cybersecurity



The concept of Cyber Security- Cyber security refers to preventative methods used to protect information from being stolen, compromised or attacked. It requires an understanding of potential information threats, such as viruses and other malicious code. Cyber security strategies include identity management, risk management and incident management. The term cyber security refers to a wide range of problems that were not a major concern among the small community of researchers and programmers who developed the Internet. Cyber security is a very broad category which encompasses numerous hardware and software

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technologies and can be applied on any level, including personal, corporate or governmental devices or networks. Passwords are a cyber security tool that people encounter nearly every day. Other common cyber security tools include:

1. Anti-virus/anti-malware software
2. Software patches
3. Firewalls
4. Two-factor authentication
5. Encryption

A cyber security plan is critical for any company with highly sensitive information. Many companies now appoint a chief security officer (CSO) or chief information security officer (CISO) to oversee their cyber security. Most of the businesses have a Chief Information Security Officer (CISO) who is responsible to implement the necessary defence mechanism to protect the organization from external and internal data thefts.

The concept of Cyber Crimes- Cyber crimes are the criminal activities carried out by means of using digital devices like computers through the internet. Basically, a crime committed by using the internet is called a cyber-crime. Cybercriminals often exploit less developed countries due to less attention of government in this issue and then use these exploitations to target more developed countries to gain access to big multinational companies. Cybercrime is an attempt to destroy or infect computer networks in order to extract or extort money or for other malicious intentions such as procuring necessary information. Cyber crimes alter computer code, data or logic via malicious code resulting in troublesome consequences which can compromise the information or data of the organizations to make it available to cybercriminals. Cyber crimes consist of various attacks which are hacking, D.O.S, Virus Dissemination, Credit Card Fraud, Phishing or Cyber

Stalking. It's the new boardroom discussion. Since we are living in the most technologically sophisticated threat environment ever, companies are paying attention to the cyber security domain. With the increasing amount of data businesses and its customers are producing comes an increasing number of people maliciously trying to obtain it. In relevant previous years, we saw increases in ransomware attacks, financial fraud and massive data breaches. It was a busy year for security practitioners, and 2019 will be no different, with new global regulations, redesigned threats to new devices, and ways to combat those threats. International Chamber of Commerce (ICC) also leverages its worldwide reach to strengthen cyber capacity and expertise globally, sharing business recommendations and experience with intergovernmental organisations and relevant forums addressing cyber security risks and management. However, business managers, including executives and directors, must recognise that cyber risk management is a continual process with no end solution. But improving cyber security is possible via a risk management process that puts heavy emphasis on management. It is difficult to take action and ensuring information security best practices are adopted within enterprises. One of the institutions the ICC Cyber security developed a guide for business, a pragmatic guide to starting a cyber security conversation between information technology specialists and company management. ICC global digital appendix of cyber security resources was created as an evolving digital appendix of resources that serves as a living database and provides localized advice from standards of practice to technical standards.

CHALLENGES IN INDIA

Cybercrimes are crimes specifically dealt with computers and networks, such as hacking, phishing and processing traditional crimes through the use of

computers (such as child pornography, hate crimes, telemarketing/internet fraud). Some common cybercrimes are briefly discussed below:

1. Hacking: Hacking in simple terms means an illegal intrusion into a computer system and network. There is an equivalent term to hacking i.e. cracking, but from Indian legal perspective there is no difference between the term hacking and cracking.
2. Child Pornography: The internet is extensively accessed and used for sexual abuse of children's. While children access and use the internet to become the victim of Paedophiles. Paedophiles (a person who is sexually attracted to children) lure the children by distributing pornographic material and then pursue them for sexual exploitation.
3. Cyber Stalking: This term is used to refer to the use of the internet, e-mail, or other electronic communications devices to stalk another person. Cyberstalking can be defined as the repeated acts of harassment or threatening behaviour of the cyber-criminal towards the victim by using internet services.
4. Denial of Service: This is a technology-driven cyber intrusion, whereby the influencer floods the bandwidth or blocks the user's emails with spam emails depriving the user, access to the internet and the services provided therefrom.
5. Data Diddling: It involves altering raw data just before it is processed by a computer and then changing it back after the processing is completed.
6. Dissemination of Malicious Software (Malware): Malware is defined as software designed to perform an unwanted illegal act via the computer network. It could be also defined as software with malicious intent

and it can be executed through the virus, worms, Trojans horse programme, hoax and spyware.

7. Web Jacking: Web Jacking occur when someone forcefully takes control of a website (by cracking the password and later changing it)
8. Phishing: It lures users to a phoney website, usually by sending them an authentic appearing e-mail. Once at the fake site, users are tricked into divulging a variety of private information, such as passwords and account numbers.
9. Credit Card Frauds: It is theft and security of data of cardholder facing the payment problem.
10. Password Sniffing: Password Sniffers are programs that monitor and record the name and password of network users as they log in, jeopardizing security at a site. Whoever installs the Sniffer can then impersonate an authorized user and login to access restricted documents.
11. E-Mail Bombing/Mail Bombs: E-Mail bombing refers to sending a large number of E-Mails to the victim to crash victim's Email account (in the case of an individual) or to make victim's mail servers crash (in the case of a company or an E-Mail service provider).
12. Identity Theft: Identity theft is a fraud involving another person's identity for an illicit purpose.
13. Data Related: It encapsulates the data interception, data diddling and data theft etc.
14. Network Related: It includes Network interference, Data Security Network sabotage.

According to Economics Times out of the top 10 most targeted countries by cyber attackers, India ranks third and cyber security defenders are facing a lot of threats from these cyber criminals. A Cyber crime is an illegal activity and

is continuously increasing in India for financial loots. India is rapidly moving towards a digital ecosystem. The number of connected devices is only increasing and the Internet is penetrating the remotest of areas, but have we covered all our bases? There are huge gaps in India's cyber-security infrastructure. India might be ready for a digital future but is it truly prepared to handle the security risks that tag along

JUDICIAL ACTIVISM

- Kumar v. Whiteley (2009): In this case the accused gained unauthorized access to the Joint Academic Network(JANET) and deleted, added files and changed the passwords to deny access to the authorized users. Investigations had revealed that Kumar was logging on to the BSNL broadband Internet connection as if he was the authorized genuine user and made an alteration in the computer database pertaining to broadband Internet user accounts' of the subscribers. The complaint also stated that the subscribers had incurred a loss of Rs 38,248 due to Kumar's wrongful act. He used to 'hack' sites from Bangalore, Chennai and other cities too, they said.
- Verdict: The Additional Chief Metropolitan Magistrate, Egmore, Chennai, sentenced N G Arun Kumar, the techie from Bangalore to undergo rigorous imprisonment for one year with a fine of Rs 5,000 under section 420 IPC (cheating) and Section 66 of IT Act (Computer related Offence)
- State of Odisha v. Jayanta Das (2017): For the first time in the judicial history of Odisha, a local Friday held guilty one person in a cyber pornography case and sentenced him to six years of imprisonment. The Puri sub-

divisional judicial magistrate court convicted Jayanta Kumar Das, a known RTI activist, for uploading a photo of a married woman on a pornographic website in 2012. The sdjm, Shibasis Giri, while sentencing six-year imprisonment also slapped an Rs-8,000 fine on Das. The cyber cell of the Odisha crime branch police had registered a case following a complaint by a local journalist. After an investigation, the crime branch had arrested Das on September 18, 2012, under section 66(c) and 67(a) of the Indian Information Technology Act 2008 and under sections 292, 465, 469, 500 of the Indian Penal Code. Das used to send obscene photos and messages to the wife of the journalist by opening fake account in order to teach a lesson to the journalist who had once written against him sentenced to six years' imprisonment and a fine on charges of forgery, identity theft and cyber pornography for creating a fake profile on a pornographic website in the name of the complainant's wife.

- Shankar v. State (2010) (see "Electronic theft" above): a case was also made out that by downloading, copying and causing the publication of confidential information, the accused diminished the value and utility of such information and affected it injuriously.
- Bhim Sen Garg v. State of Rajasthan (2006): fabrication of an electronic record, or committing forgery by way of interpolations in a CD; and
- Dr Prakash v. State of Tamil Nadu (2002): The appellant stands convicted and sentenced by the learned Additional Sessions Judge holding that the alleged guilt against the appellant, he was proved beyond

a reasonable doubt

- Verdict: - He was convicted under section-67 of Information Technology Act and sentenced to imprisonment for posting nude pictures of female patients online in contravention of Section 367 of Indian Penal code and under section 4 read with section 6 of Indecent Representation of Women (Prohibition) Act, 1986.

- I D R I S H B H A I SAIFUDDINBHAI HATHI V STATE OF GUJARAT & 2 : The petitioner is an agriculturist. He possesses savings bank account No.210910100002143 in Bank of HC-NIC Created On Sun Mar 13 22:05:12 IST 2016 R/SCRA/1410/2016 ORDER India at Pisawada Branch. It is the sway of the petitioner that on 16.2.2015 when he went to ATM, SBI, Bazar Branch to withdraw Rs.1000/-, the machine was not working properly. He managed to get the amount of Rs.1000/- after inserting the card twice or thrice with the help of some persons. It is his say that to his shock he realized that sum of Rs.50,000/- had been deposited from his account on 16.2.2016. Therefore, he rushed to his bank to find out the truth of the matter only to find another shock that the card, which he was carrying was not that of his but that of a third person. His card had been taken away by those who camouflaged to help him. He, therefore, had lodged a complaint of cheating by giving a representation to P.I. Dholka police station and as no FIR is lodged,
- Verdict: - This Hon'ble Court may be pleased to grant such other and further relief's as deemed fit and proper in the interest of justice." Learned

advocate Mr. M. A. Saiyed appearing for the petitioner has urged that this not only concerns the offence of fraud and cheating but also relates to cyber-crime. He has also placed in service, a communication shot by the Police Commissioner, Ahmedabad on 5.5.2012 to emphasize that every time there is a question of cyber-crime, ordinarily, no complaint is being registered.

Surveys

Internationally, businesses are intimately familiar with the need for data protection. Yet 2017 has taught us that even some of the largest businesses holding some of the most sensitive consumer data are still vulnerable—and at times, poorly secured. Around the world, hackers increasingly targeted businesses and governments. Small Business and even hospital learned the hard way that enterprise businesses are not the only ones who need to be concerned.

- 32 per cent of U.S. organizations were victims of cybercrime in 2016, with 34 per cent expecting to become victims in the next two years. (Source: PWC)
- In 2016, malware affected around 75 per cent of organizations in 13 countries. (Source: Cisco)
- In the first half of 2018, the industry with the highest number of reported DDoS attacks was the wired telecommunications carrier industry, with almost 800,000 attacks during that period.

Figure 3: Attacked users on Malware

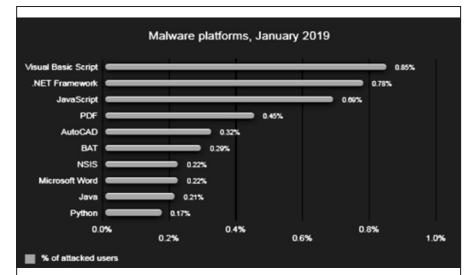
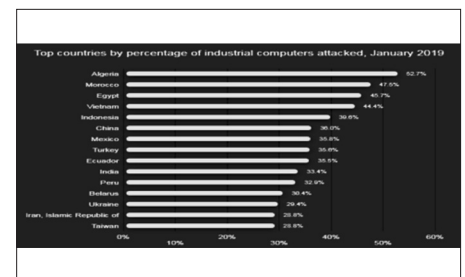


Figure 4: Cyber Attacks Percentage



Cyber Attack on Cosmos Bank

A daring cyber attack was carried in August 2018 on Cosmos Bank's Pune Branch which saw nearly 94 Crores rupees being siphoned off. Hackers wiped out money and transferred it to a Hong Kong situated bank by hacking the server of Cosmos Bank. A case was filed by Cosmos Bank with Pune cyber cell for the cyber attack. Hackers hacked into the ATM server of the bank and stole details of many visa and rupee debit cards owners.

In July 2018 fraudsters hacked into Canara Bank ATM servers and wiped off almost 20 lakh rupees from different bank accounts. The number of victims was over 50 and it was believed that they were holding the account details of more than 300 ATM users across India. The hackers used skimming devices on ATMs to steal the information of debit card holders and made a minimum transaction of INR 10,000 and the maximum of INR 40,000 per account. On 5 August 2018, two men were arrested in New Delhi who were working with an international gang that uses skimming activities to extract the details of a bank account.

- India ranks 3rd in terms of the highest number of internet users in the world after USA and China, the number has grown 6-fold between 2012-2017 with a compound annual growth rate of 44%.
- India secures a spot amongst the top 10 spam-sending countries in the world alongside USA
- India was ranked among the top five countries to be affected by cybercrime, according to a 22 October report by online security firm "Symantec Corp"

Figure 5: Cyber Attack at Cosmos Bank, Pune

WHAT HAPPENED	IS THE ACCOUNT HOLDERS' MONEY SAFE?
<p>▪ Fraudsters launched a malware attack and siphoned off ₹8.42 crore from Cosmos Bank on August 11 and 13</p> <p>HOW IT HAPPENED</p> <p>▪ The fraudsters created a proxy switch to interact with the VISA and Rupay payment gateway</p> <p>▪ They used the fake switch to approve 12,000 transactions at ATMs in 28 countries, and 2,800 transactions in India</p>	<p>▪ The account holders' money is safe now and in the future, says the bank, as the proxy switch was operative on the payment gateway, not the 'Core Banking System'</p> <p>WHO'S BEHIND IT?</p> <p>▪ Experts suspect the hand of Lazarus, a group linked to the \$81 million heist in Bangladesh and the 2014 attack on Sony Pictures</p> <p>▪ The bank has appointed a professional forensic agency to investigate the attack</p> <p>▪ The servers, internet banking, mobile banking and ATMs have been suspended</p> <p>▪ The bank said it will take 3-4 days for the alternative switch to become operational</p>

72 Per cent of Indian Companies Faced Cyber Attack in 2015

Incidences of cybercrime in India shot up drastically in 2015, with 72 per cent companies in the country falling prey to online attacks this year, a survey report said. "Around 72 per cent of Indian companies faced cyber crimes this year alone. 94 per cent respondents indicated that cyber-crime is a major threat faced by organisations, but surprisingly only 41 per cent indicated that it forms part of the board agenda," the KPMG Cybercrime Survey Report 2015 prepared by KPMG in India, a professional services firm, said. The survey report was released in the presence of Mumbai Police Commissioner Ahmed Javed today. 83 per cent respondents of the 250+ C-suite executives that participated in the survey indicated that there is usually external involvement in cyber-attacks with directors/management being most vulnerable according to 64 per cent, the report said adding, "It was also alarming to note that 54 per cent indicated that spend on cyber defences is less than five per cent of the IT

spend." City police commissioner urged the companies to approach police instead of leaving such incidents to go unreported. "The reason for this (incidents being unreported), usually, is that the company is afraid of its reputation being spoilt in the market or his shares might come down," said Commissioner Javed. Also, the advancement and adoption of technology have enabled criminals to leverage upon it to carry out crime, he said. The Mumbai police have a dedicated cyber police station and are continuously strengthening itself by undertaking training to deal with cyber-crime cases, he informed. "It is critical for the citizens, both corporates and individuals, to be aware of cyber risks and not fall prey to the phishing scams. We are undertaking a drive to educate and create awareness among citizens with reference to cyber-threats," Mr Javed said.

STATUTORY FRAMEWORK GOVERNING CYBERSECURITY IN INDIA

Infection of IT systems with malware (including ransomware, spyware, worms, trojans and viruses)

The following acts constitute offences when conducted fraudulently or dishonestly and without the permission of the owner/person in charge of the computer:

- Introduction of a computer contaminant/virus; and
- Damage to any computer, computer system or computer network or any data, database or computer program residing therein (Sec. 43(c) and (d), ITA).

The above offences are punishable with imprisonment of up to three years or with a fine of up to INR 500,000 or with both (Sec. 66A, ITA).

Possession or use of hardware, software or other tools used to commit cybercrime (e.g. hacking tools)

Possession of any plate (including negative duplicating equipment, block, mould, etc.) for making infringing copies of copyrighted work is punishable with imprisonment of up to two years and a fine (Sec. 65, Copyright Act).

Dishonestly receiving stolen computer resources or communication devices is punishable with imprisonment of up to three years or a fine of up to INR 100,000 (Sec. 66B, ITA).

Identity theft or identity fraud (e.g. in connection with access devices):- Publication of electronic signatures: (i) that are fake; or (ii) for fraudulent/unlawful purposes, is punishable with imprisonment of up to two years or with a fine of up to INR 100,000 or with both (Secs 73 and 74, ITA).

Electronic theft (e.g. breach of confidence by a current or former employee, or criminal copyright infringement):- The following acts constitute offences when conducted fraudulently or dishonestly and without the permission of the owner/person in charge of the computer:

- Downloading, copying or extracting data/information from a computer resource (including any removable storage medium) (Sec. 43(b), ITA); and
- charging services availed of by a person to the account of another person by tampering with/manipulating any computer (Sec. 43(h), ITA).

The above is punishable with imprisonment of up to three years or with a fine of up to INR 500,000 or with both (Sec. 66A, ITA).

Violation of privacy by intentionally or knowingly publishing/transmitting a private image of a person without his/her consent is punishable with imprisonment of up to three years or with a fine of up to INR 200,000 or with both (Sec. 66E, ITA).

Disclosure of personal information obtained while providing contractual services, with the intent/knowledge that wrongful loss/gain will result, is punishable with imprisonment of up to three years or with a fine of up to INR 500,000 or with both (Sec. 72A, ITA).

Criminal copyright infringement (i.e. with knowledge): knowingly using an infringing copy of a computer program, and infringement and passing off of trademarks, is punishable with imprisonment of up to three years and a fine of up to INR 200,000. In each case, an enhanced penalty is invoked upon subsequent convictions (Sec. 63 and Sec. 63B, Copyright Act and Sec. 104 of the Trade Marks Act).

Theft, cheating, fraud, dishonest misappropriation and criminal breach of trust provisions under the IPC may also be invoked

Other activity that adversely affects or threatens the security, confidentiality, integrity or availability of any IT system, infrastructure, communications network, device or data

The following acts constitute offences when conducted fraudulently or dishonestly and without the permission of the owner/person in charge of the computer:

1. Destroying, deleting, injuring, altering or diminishing the value/utility of information residing in a computer resource; and
2. Stealing, concealing, destroying or altering computer source code (including computer commands, design and layout, program analysis, etc.) with an intention to cause damage (Sec. 43(i) and (j), ITA).

The above is punishable with imprisonment of up to three years or with a fine of up to INR 500,000 or with both (Sec. 66A, ITA).

Knowingly or intentionally tampering (concealing, destroying or altering) with computer source documents required to be kept/maintained by law is punishable with imprisonment of up to three years or with a fine of up to INR 200,000 or with both (Sec. 65, ITA)

Laws, rules and regulations those are applicable in Indian jurisdiction. This may include, for example, laws of data protection, intellectual property, breach of confidence, the privacy of electronic communications, information security, and import/export controls, among others.

1. Information technology laws
 - a. Information Technology Act, 2000 ("ITA");
 - b. IT (Certifying Authority) Regulations, 2001;
 - c. IT (Security Procedure) Rules, 2004;
 - d. IT (Procedure and safeguards for an interception, monitoring and decryption of information) Rules, 2009 ("Decryption Rules");
 - e. IT (Procedure and safeguards for blocking for access to information by the public) Rules, 2009;
 - f. IT (Procedure and safeguard for monitoring and collecting traffic data or information) Rules, 2009;
 - g. IT (Intermediaries Guidelines) Rules, 2011 ("Intermediary Rules");
 - h. IT (Guidelines for Cyber Cafe) Rules, 2011;
 - i. IT (Electronic Services Delivery) Rules, 2011;
 - j. IT (the Indian Computer Emergency Response Team and manner of performing functions and duties) Rules, 2013 ("CERT Rules"); and
 - k. National Cyber Security Policy, 2013.
 - l. In addition, relevant offences under the Indian Penal

Code, 1860 ("IPC") may also be added to offences under the ITA at the time of prosecution.

2. Privacy and data protection laws: - IT (Reasonable security practices and procedures and sensitive personal data or information) Rules, 2011 ("Privacy Rules"):- when the Information Act 2000 (hereinafter referred to as IT Act) first came in force on October 17, 2000, it lacked provisions for protection and the procedure to be followed to ensure the safety and security of sensitive personal information of an individual. This led to several other amendments and bills being passed and finally The Information Technology (Amendment) Act, 2008 inserted Sec. 43A in the IT Act which notified and Information Technology (Reasonable security practices and procedure and sensitive personal data or information) Rules, 2011 (hereinafter referred as the 2011 Rules). The key features of the 2011 Rules are:-
 - a. These 2011 Rules only apply to body corporates and person located in India Sec 43A of the IT Act explicitly provides that whenever a body possesses or deals with any sensitive personal data or information, and is negligent in maintaining a reasonable security to protect such data or information, which therein causes wrongful gain to any person, then such body corporate shall be liable to pay damages to the person so affected
 - b. A list of items has been provided which are to be treated as sensitive personal data which include passwords biometric information sexual

orientation, medical reports etc but any information which is freely available or accessible in the public domain is not considered to be sensitive personal data.

- c. Anybody seeking such sensitive personal data must draft a privacy policy which has to be published on the website of the body corporate, containing details of information being collected and purpose for its use.
- d. The purpose must be clear and information used only for such consent as given and data to be retained only till such time is needed.
- e. The 2011 Rules also provide Grievance Office who shall be responsible to address grievances of information providers within 1 month for resolution of such grievances. Body corporates must have an audit of the security practices and procedures implemented by it by an auditor at least once in a year or as and when the body corporate or a person on its behalf undertake significant upgradation of its process and computer resources.
- f. The punishment for disclosure of information in breach of lawful contract and imprisonment under the IT Act may be for a term not exceeding 3 years or with a fine which maybe Rs.5,000,000 or with both.

Thus, as can be seen, Sec 43A of the IT Act, 2011 Rules and many similar provisions are there under the GDPR but applicable only for the residents of India. However, this does mean that most companies already have a privacy policy in place which can now be further developed and extended to include and encompass the stricter

regulations of GDPR so that they do not face any penalties for breaches under the GDPR.

3. The government recently released a draft Digital Information Security in the Health Care Act, which is geared towards the protection of “digital health data”, “personally identifiable information” and “sensitive health-related information” (“Health Information”). This Act is currently in draft form but is intended to apply (once enforced) to all clinical establishments and entities/ individuals that generate, collect and have custody of Health Information.
4. Intellectual property (“IP”) laws
 - a. (i) Copyright Act, 1957.
 - b. (ii) Patent Act, 1970.
 - c. (iii) Trade Marks Act, 1999.
5. Credit Information Companies Regulation Act, 2005 (“CICRA”) As per the CICRA, the credit information pertaining to individuals in India have to be collected as per privacy norms enunciated in the CICRA regulation. Entities collecting the data and maintaining the same have been made liable for any possible leak or alteration of this data. Based on Fair Credit Reporting Act and Graham Leach Bliley Act, the CICRA has created a strict framework for information pertaining to movable property has been defined as property which is not attached to anything and is not a land. credit and finances of the individuals and companies in India. The Regulations under CICRA which provide for strict data privacy principles have recently been notified by the Reserve Bank of India.

AADHAR CARD

Aadhar system a nationwide biometric identification system is being currently challenged in India with the key dispute being whether the norms for the compilation of the demographic biometric data by the Government violates the right to privacy. This card has to be applied for the individuals and in the application requires a person to provide his or her personal data. This card is provided by the Government of India. Recently, the Government of India has mandated that even foreign residents who are taxpayers in India must obtain an Aadhar Card along with the already in place of PAN (Permanent Account Number). Thus, with the recent GDPR (General Data Protection Regulation) coming into force, the information obtained by the Government of India under the Aadhar system is impacted, especially for EU (European Union) Citizens currently residing in India. The Aadhaar scheme which was first introduced as a means of targeted distribution of subsidies, is today being implemented towards a variety of purposes, including the fight against black money, transaction authentication, and ‘know your customer’ requirements for banks and telecom companies. Aspects of Aadhaar Act, such as (i) security of the Aadhaar system, (ii) the inability of the individual to file complaints (for violation under the Aadhaar Act) relating to theft or misuse of their data, and (iii) the inability to withdraw / delete one’s data once registered with the UIDAI (government authority dealing with Aadhaar laws) is under scrutiny in the current pending litigation with the Supreme Court of India. While the judgement which delivered the decision regarding privacy as a fundamental right of individuals subject to reasonable restrictions was not directly intended to impact the use of Aadhaar card, it will now have a significant impact on the pending litigation. The outcome of this pending litigation will significantly impact data protection policies in India.

The Data (Privacy and Protection Bill), 2017:-Recently, a Bill was introduced in Parliament proposing to bring privacy under the ambit of legislation. This is not the first Bill on privacy introduced in Parliament. However, this Bill is different from the previous Bills in the sense that it seeks to make the consent of an individual for collection and processing of personal data mandatory. The Bill states that the individual will have the sole right and the final right to modify or remove personal data from any database, public or private. In the context of sensitive and personal information, the person must provide his or her express and affirmative consent for the collection, use, storage of any such data. This Bill applies not only to private corporations or body corporate but is equally applicable to state entities, government agencies or any other persons acting on their behalf. Even the definition of a “third party” under this Bill includes the public authorities. This symbolises a significant change in law from the existing regime under the IT Act and the 2011 Rules in India. However, with respect to sensitive, personal data, Section 20(2) provides that no sensitive data shall be processed for any other purpose apart from its intended use but can be used by welfare schemes and social protection laws. Hence, this would imply that the Aadhaar scheme, as mentioned earlier, would also have access to a person’s personal, sensitive information. This Section is analogous with the present dispute at the Supreme Court and will continue to be subject to debate due to the existing privacy concerns. Although this Bill, which is still pending to be passed into legislation, is much more in line with the stricter GDPR norms it is unlikely to come into force until the pending litigation regarding the Aadhaar scheme comes to a conclusion regarding the use of the Government of the personal and sensitive data who resides in India

DIGITAL INDIA VIZ-A-VIZ CYBER SECURITY

The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. The journey of e-governance initiatives in India took a broader dimension in the mid-90s for wider sectoral applications with emphasis on citizen-centric services. Later on, many States/UTs started various e-governance projects. Though these e-governance projects were citizen-centric, they could make lesser than the desired impact. The government of India launched the National e-governance Plan (NeGP) in 2006. 31 Mission Mode Projects covering various domains were initiated. Despite the successful implementation of many e-governance projects across the country, e-governance as a whole has not been able to make the desired impact and fulfill all its objectives.

Need of Digital India

About one-third of India’s population is internet users, and one-fourth of mobile internet users are in rural areas. But internet penetration in villages, at 8.6% compared to 37.4% in cities, has a long way to go, and this is the statistic ‘Digital India’ hopes to change. As per a World Bank report, a 10% increase in a country’s broadband connections leads to a 1.38% rise in its gross domestic product.

Figure 6: Increase in Ecommerce

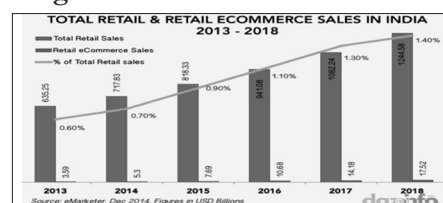


Figure 7: Online Transaction after Demonetization in India

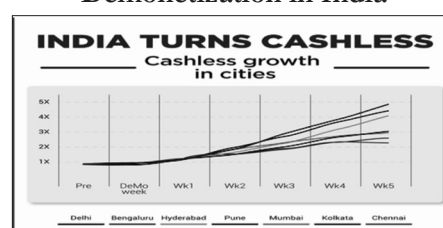
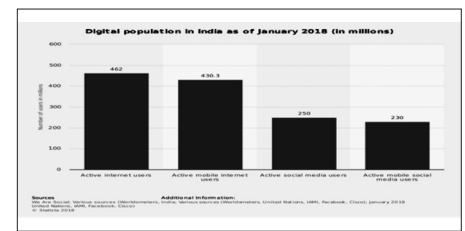


Figure 8: Digital Population in India



Government Grand Vision

Our government has emphasized the need for leveraging technology to drive the nation and bring in transparency within governance and simplifying citizens’ access to public services. The vision of building ‘one hundred smart cities’ – which has been allocated Rs. 7,060 crore – is a major project that would rely strongly on technology, calling for a robust cloud computing backend coupled with real-time surveillance and big data analytics technologies. The Digital India programme will be implemented in phases from the current year until 2018. The vision of the government under the project includes the creation of ICT infrastructure like the high-speed Internet at gram panchayat level, on-demand availability of government services like health, education etc., and digital empowerment of citizens, especially through digital literacy. Under the programme, the government will train one person in each household digitally through ICT training to 10 lakh people with an outlay of Rs.376 crores.

Impact on overall economy

Analysts feel ‘Digital India’ has the potential to be one of most transformative programmes in recent times. Digital India Initiatives would provide the much-needed impetus to the economic growth given its focus on key social and industry sectors. Not only IT/ITeS, telecom, electronics manufacturing sectors would be benefited from Digital India, but we would see a positive impact on other industry sectors as well, like Power Sector, Banking, and Financial Services.

Implementation & Monitoring Strategy

Digital India Advisory Group (DIAG) would be created, which will be headed by Minister of Communications to supervise the implementation of the programme, advise the government on policy issues and strategic interventions necessary for accelerating the implementation of Digital India Programme across Central and State government ministries/departments. The government will appoint nodal officers at key ministries to ensure smooth implementation of 'Rs. 1 lakh crore Digital India' programme. The new posts of 'Chief Information Officers' (CIO) would be created in at least 10 key ministries to supervise the implementation.

Digital India Initiatives & Need for Cyber Security

We have already discussed the alarming rise of cyber crimes in India and the government's continuous struggle to cope up with the latest trends of attacks. Apart from domestic cyber threats, India also faces tough cyber-attacks from countries including Pakistan, China, UAE, US, Turkey, Brazil, Bangladesh, Algeria and nations in Europe. To counter this alarming situation, the Indian Government has aimed to step up cyber security measures under Digital India programme starting with an Rs. 800-crore centre that will help people check and clean their computer system from viruses and other malware. The programme is intending to build a capability to tell you that not only can track the malware in the computer system but will clean that infection as well. A year in the works, the National Cyber Security and Coordination Centre (NCSC) will analyze Internet traffic data scanned and integrated from various gateway routers at a centralized location. It will facilitate real-time assessment of cyber-security threats and generate actionable reports for various agencies. As a multi-agency body under the Department

of Electronics and IT, the NCSC will include the National Security Council Secretariat, the Intelligence Bureau, the Research and Analysis Wing (RAW), the Indian Computer Emergency Response Team (CERT-In), the National Technical Research Organisation (NTRO), the three armed forces and the Department of Telecommunications. It is expected to subsume the work done by CERT-In as well as issue alerts in the event of a cyber-attack.

CONCLUSION

The need to develop and enforce legislation, regulations, standards and competence in the face of pervasive and dynamic digital technology and attendant security concerns. Though not all people are victims of cyber crimes, they are still at risk. Crimes by computer vary, and they don't always occur behind the computer, but they executed by a computer. The hacker's identity is ranged between 12 years young to 67 years old. The hacker could live three continents away from its victim, and they wouldn't even know they were being hacked. Crimes done behind the computer are the 21st century's problem. With the technology increasing, criminals don't have to rob banks, nor do they have to be outside in order to commit any crime. They have everything they need on their lap. Their weapons aren't guns anymore; they attack with mouse cursors and passwords. As internet technology advances so do the threat of cybercrime. In times like this these, we must protect ourself from cybercrime. Antivirus software, firewall and security patches are just the beginning. To stress on the need to engage in the end to end user education on the danger of cybercrime, on the imperative of adequate cyber security, on the protection of critical infrastructure and on the need for self-reporting. Cybercrimes can be reduced by creating awareness programmes between people and developing security system of computers.

SUGGESTIONS

1. **Use Strong Passwords**
Use different user ID/password combinations for different accounts and avoid writing them down. Make the passwords more complicated by combining letters, numbers, special characters (minimum of 10 characters in total) and change them on a regular basis.
2. **Secure your computer**
 - a. **Activate your firewall**
Firewalls are the first line of cyber defence; they block connections to unknown or bogus sites and will keep out some types of viruses and hackers.
 - b. **Use anti-virus/malware software**
Prevent viruses from infecting your computer by installing and regularly updating anti-virus software.
 - c. **Block spyware attacks**
Prevent spyware from infiltrating your computer by installing and updating anti-spyware software.
3. **Be Social-Media Savvy**
Make sure your social networking profiles (e.g. Facebook, Twitter, Youtube, MSN, etc.) are set to privacy. Check your security settings. Be careful what information you post online. Once it is on the Internet, it is there forever!
4. **Secure your Mobile Devices**
Be aware that your mobile device is vulnerable to viruses and hackers. Download applications from trusted sources.
5. **Install the latest operating system updates**
Keep your applications and operating system (e.g. Windows, Mac, Linux) current with the latest system updates. Turn on automatic updates to prevent potential attacks on older software.

6. Protect your Data

Use encryption for your most sensitive files such as tax returns or financial records, make regular back-ups of all your important data and store it in another location.

7. Secure your wireless network

Wi-Fi (wireless) networks at home are vulnerable to intrusion if they are not properly secured. Review and modify default settings. Public Wi-Fi, a.k.a. “Hot Spots”, are also vulnerable. Avoid conducting financial or corporate transactions on these networks.

8. Protect your e-identity

Be cautious when giving out personal information such as your name, address, phone number or financial information on the Internet. Make sure that websites are secure (e.g. when making online purchases) or that you’ve enabled privacy settings (e.g. when accessing/using social networking sites).

9. Avoid being scammed

Always think before you click on a link or file of unknown origin. Don’t feel pressured by any emails. Check the source of the message. When in doubt, verify the source. Never reply to emails that ask you to verify your information or confirm your user ID or password.

10. Call the right person for help

Don’t panic! If you are a victim, if you encounter illegal Internet content (e.g. child exploitation) or if you suspect a computer crime, identity theft or a commercial scam, report this to your local police. If you need help with maintenance or software installation on your computer, consult with your service provider or a certified computer technician.

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RISK MANAGEMENT IN BANKING SECTOR IN THE VUCA WORLD: HOW PNB WAS DEFRAUDED OF RS. 11,400 CRORES?

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ABSTRACT:

The world is never straightforward. Over some undefined time - frame, it has prompted such a large number of changes which we have never envisioned. We are living in a world brimming with Volatility, Uncertainty, Complexity and Ambiguity, the four elements of risk. We live in an alternate world described by VUCA, Volatile with precarious difficulties, and Uncertain with obscure results, and Complex with many interconnected parts, and Ambiguous with the absence of lucidity. The idea of VUCA is utilized to depict the turbulent, unpredictable and quickly changing natural setting considered by numerous individuals to be the new mantra of working together. As per VUCA on the off chance that we hang tight unreasonably long for a minute the minute may go without our insight. New forces are changing how the banks and companies work. Data and the advanced insurgency are compelling each bank to change their discernment. In the present situation, plans of action are getting to be old quicker than any time in recent memory as new ideas seem each day. There is a genuine interruption for a large portion of the business and it is anticipated that more disturbances are probably going to come. The Digital Revolution is relentless. What does it mean in assessing risk? The old school of contemplations does not give any answers and the outlook, just as administration, is stuck in old reasoning. There is an expanding disconnect among the real world and hazard culture. All in all, the inquiry emerges is "What style of Risk Management is required among the VUCA World?"

Keywords: Volatility, Uncertainty, Complexity, Ambiguity, Risk Management.

INTRODUCTION

Between World War II, there were two universes dwelling on one and just the same planet – the communist world was driven by USSR and the capitalist world was driven by the USA. Life was in no way, shape or form ever simple VUCA. Two major amazing quality attempts to up play out one another by military methods, endeavoring to prevail upon nations in all pieces of the world, contending on mechanical accomplishments like the capacity to send individuals into space and to the moon and attempt to win a bigger number of awards than the opposite side at the Olympics. At that point in the late 1980s, the Soviet Union began to implode which made a huge difference. Strategist at US Army War College began to think about the world after the Cold War. They concocted the abbreviation VUCA to depict it, a world you are no longer facing the enormous enemy, yet you

may be enduring an onslaught under different fear-based oppressor and guerilla bunches in different pieces of the world that can sort out themselves very rapidly and effectively. In the 21st century, as the pace of progress in the business is expanding, business people have adopted the term VUCA to portray the riotous, fierce and quickly changing the business condition that has turned into the "new typical."

Defining VUCA – Conceptual Framework

VUCA is a stylish administrative abbreviation short for Volatility, Uncertainty, Complexity, and Ambiguity. Some people think VUCA is only used to describe the dark clouds on the horizon scenarios, but it is far broader than that. It can be positive as well as negative. The meaning and significance of VUCA is much clearer if we balance it with its contrary energies/opposites as appeared in the accompanying table.

Table 1

		As opposed to
V	Volatile	Stable
U	Uncertain	Predictable, Certain
C	Complex	Simple, Linear
A	Ambiguous	Clear

A few circumstances are on the VUCA side while some are on the Non - VUCA side.

The "V" in the VUCA abbreviation represents Volatility. It is fundamentally related and associated with the speed of advancement in the business, market and so on. Volatility leads to the chance of failure or negativity. The more unpredictable the world is, the more and quicker things change. For instance, in an unpredictable market, the prices may pointedly increment or forcefully decline or the heading of the pattern can turn around all of a sudden. It is to be noted that change is only the

status quo. The way we compete, our client's behavior, our political and administrative environment are moving and changing consistently which the business and cash-related financial specialists care for. That's why Brexit delivered so much volatility and instability in the monetary markets.

The "U" in the VUCA shortening speaks to Uncertainty. It fundamentally means a lack of predictability in issues and events. The more dubious the world is, the harder it is to anticipate. It is basically a term used to describe a situation characterized by a lack of knowledge pertaining to whether a situation is significant enough to constitute a meaningful cause. Taking a gander at the Brexit case once more, everybody knew that the "leave" choice of voters had a 50% chance of event but many hours afterward, the results of it were still difficult to foresee. This standard of Uncertainty is additionally very much outlined by the repercussions of India's Pulwama Terror Attack 2019 Post Pulwama attack was not necessarily volatile; the core issue taking India's Governments was not a lack of stability or unpredictability. Rather, Government pioneers understood that the success of attacks on the Kashmir region might encourage other terrorists to create similar plots. What number of more assault may we face? When and where these assaults may happen? Who may be behind them? This is an uncertain situation – but not necessarily a volatile situation, nor a totally ambiguous one, nor an overly complex one.

The "C" in the VUCA abbreviation represents Complexity. Complexity refers to the number of variables and factors we have to consider, their variety, and the connections and relationships between them. The more mind-boggling the world is, the harder it is to investigate. In other words, the more complex the world, the harder it is to analyze. Brexit again is a genuine

incident. Outcomes of this political factor will be practical, business, administrative and enthusiastic. In addition, all outcomes will interface together making the whole a kind of never seen patchwork.

The "A" in the VUCA abbreviation represents Ambiguity. Ambiguity refers to a lack of clarity about how to interpret something. The more ambiguous the world is, the harder it is to interpret. For example, a situation is considered as ambiguous if the information is incomplete or it is inaccurate for drawing any conclusions.

OBJECTIVES OF THE STUDY

The principal objective of the study is to analyze the occurrence of the Punjab National Bank Scam in the VUCA world and to study the impact of this scam on different sectors.

RESEARCH METHODOLOGY

This study uses secondary data. Newspaper journals, international periodicals and RBI circulars related to the scam was reviewed. The methodology used in the study is the 5W2H approach. 5W2H is a quality management tool which aims at examining the problem with the aim to reach feasible solutions. It helps to consider various facets of the situation being analyzed. 5W2H stands for 5Ws and 2Hs or Who, What, When, Where, Why, How, and How much.

The idea of this research methodology is adapted from the paper "A Critical Analysis of the Punjab National Bank Scam and Its Implications" by S. Gayathri and T. Mangaiyakarasi, School of Management Studies, VISTAS, Pallavaram, Chennai.

PUNJAB NATIONAL BANK

Punjab National Bank (PNB) is an Indian multinational banking and financial services company. It is a state-owned corporation based in New Delhi, India. The bank was founded

in 1894 by Lala Lajpat Rai and Dyal Singh Majithai. As of 31 March 2017, the bank has over 80 million customers, 6,937 branches (7,000 as on 2nd Oct 2018) and 10681 ATMs across 764 cities. Its current CEO is Sunil Mehta. It is India's second state-run lender.

TABLE 2: 5W2H OF THE PNB SCAM

WHAT?
<p>What happened? On 14th February 2018, PNB, India's second largest state-owned bank revealed that it has seen fraudulent transactions or fake exchanges worth \$ 1.77 billion (Rs.11,400 crores) at one of its Mumbai branches. In a complaint to the CBI, PNB has alleged that the misrepresentation was driven by Nirav Modi, a jeweler who is on No. 85 on Forbes's 2017 list of India's richest people.</p>
<p>What is the fraud about? Two PNB employees issued fake Letter of Understanding (LoU's) to Indian Banks who had overseas branches on behalf of Nirav Modi. LoC is a document issued by a bank guaranteeing payment under which bank allows its customers to raise money from another bank in the form of short-term credit. 151 LoU's were issued in 2017 alone.</p>
<p>What is irregular about this fraud? Two parameters were considered to be irregular about this fraud. Firstly, no collateral was asked at the time of sanctioning the loan and the bank employees had sent these guarantees in the absence of credit limit. Secondly, no valid entry was made in the bank's Core Banking Solution (CBS) – the software used to support a bank's most common transactions.</p>
<p>What action has PNB taken? PNB has suspended 10 employees and referred the case to CBI and Enforcement Directorate (ED).</p>

What other banks were affected?

Modi and his companies leveraged those LoUs in Hong Kong to secure buyers' credit from the local branches of Allahabad Bank (estimated to be Rs. 2,000 – 2,200 crore), Union Bank (about Rs. 2,000 – 2,300 crore) and State Bank of India (Rs. 960 crores) among others.

What is the extent of the fraud?

PNB became answerable to the countries some of the leading banks namely Allahabad Bank, Union Bank and as well as State Bank of India. Secondly, huge disruptions were made in the banking, insurance, and jewelry sector. Last but not least, this fraud also questions about the credibility of the Public Sector Banks and the role of RBI and SEBI among others. Citizens trust in PNB were also at stake.

What are the authorities doing?

The CBI has arrested 12 people – 6 from the bank and 6 from Modi and Choksi's companies. The ED has seized diamonds and jewelry worth Rs. 56.74 billion after searching Nirav Modi's home and offices. It has also seized 9 of his luxury cars. The RBI has taken steps to ensure that banks to integrate their SWIFT system with their main banking software.

What all other companies were involved in this scam?

Modi's companies Solar Exports, Stellar Diamonds, and Diamonds R US were involved in the scam.

WHO?**Who are the culprits involved?**

Following persons were involved in the fraud:

Nirav Modi

Ami Modi (Wife of Nirav Modi)

Mehul Choksi (Uncle of Nirav Modi)

Neeshal Modi (Brother of Nirav Modi)

Gokulnath Shetty (A Deputy Manager of PNB)

ManajKharat (A PNB Official)

Who reported the fraud?

The fraud was detected by the Punjab National Bank itself and was reported to the Central Bureau of Investigation (CBI) and the Reserve Bank of India (RBI).

Who assumes the liability?

PNB CEO Sunil Mehta said that PNB will follow the regulator's instructions on repayment. A senior government official said PNB will repay other banks their dues by 31st March and it would be funded from internal sources.

Who are the stakeholders involved?

Customers of the bank

Employees

Board of Directors

Creditors

Regulators: RBI, SEBI

The Government of India

WHEN?**When did the fraud come into the light?**

On January 29, 2018, PNB filed a criminal complaint with India's Federal Investigative Agency against 3 companies and 4 people. On 14th February 2018, the bank updated the fraud amount to Rs. 11,400 crores.

When did the scam start and stop?

The scam was going for as long as seven years from 2011. The scam arrived at an end when one of the guilty parties among the bank official resigned (Gokulnath Shetty). At the point when Modi's firm requested a fresh guarantee, the new PNB worker in that position requested collateral security. On being informed this was never requested before, the bank began exploring and found 140+ LoU's identifying with these organizations.

WHERE?**Where did the scam happen?**

The scam had happened within the operating environment of PNB.

WHY?**Why did PNB give an LoU guarantee without any collateral?**

The loan was not a "fund-based limit". In a fund-based limit like a term loan, the bank pays out money. In the non-fund-based limit, the bank will only pay if someone else defaults or an event happens like banks LoU is evoked. It means PNB assumed that the foreign bank was giving a loan directly to Nirav Modi and that PNB needed to pay only in case Nirav Modi defaulted. So, in the eyes of PNB, it was always a "non-fund-based".

Why is it a problem?

The PNB's financial framework has been undermined and the clients and speculators trust were influenced.

HOW?**How was the LoU misused?**

A PNB Deputy Manager, Gokulnath Shetty, allegedly used his access to the SWIFT messaging system used by banks for overseas transactions to authenticate guarantees given on LOUs without any sanctions. Based on such authentications, overseas branches of several Indian Bank gave forex credit. Exactly 140+ LOUs were issued to Mr. Nirav Modi. Normally, a period of LoU revolves around between 90 to 180 days.

How did the PNB fraud come into the light?

The scam came into the light when one of the guilty parties among the bank official resigned (Gokulnath Shetty). At the point when Modi's firm requested a fresh guarantee, the new PNB worker in that position requested collateral security. On being informed this was never requested before, the bank began exploring and found 140+ LoU's identifying with these organizations.

HOW MUCH?**How much is the loss?**

The misfortune was \$ 1.77 billion (Rs. 11,400 crores).

How much was the fraud in numbers?

The government was expected to infuse Rs. 5,473 crores in PNB equity. The fraud is 8 times the bank's 2016 – 2017 profit of Rs. 1,325 crores.

It is equal to a PNB share third of PNB's net worth (Rs. 35,300 crores).

MAGNITUDE OF THE SCAM

The magnitude of the scam is as follows:

1. Size of the transactions:
The value of the scam which is more than Rs. 11,000 crores is twice the amount of recapitalization that was provided by the Government of India in the financial year. Basically, the taxpayer's money which was provided by the Government of India is half of the value of the fraudulent practice of the PNB. The scam is more than 8 times the profit reported by the PNB for FY 2017. The public sector banks are already suffering from the effects of twin balance sheet problem, on one side they are unable to meet the credit requirements of various sectors and on the other side the profit margin had already decreased and in the last 4 years, the profit of Public Sector Banks i.e., the return on assets have already entered into negative. In this particular scenario, if a particular bank becomes prey for these particular scams, it will have a large-scale impact on the investor's confidence in this particular bank. The investors who had invested in PNB such as LIC, the shares of LIC have taken a hit, the banking sector shares have taken a hit and the confidence on diamond traders have also taken a hit. Thirdly, the value of the scam is one-third of the market capitalization of the bank.

2. Security in the banking sector:
On the off chance that a typical man understands that the bank is falling prey for this sort of deceitful exchanges, what sort of confidence will he have on the banking sector? What does this speak to this regarding the security of the banking sector? What does it say about PNB, the bank which has fallen prey for the second time in 4 years for a similar sort of deceitful exchanges?
3. Auditing:
In a particular financial year, a bank will undergo many processes of auditing. A bank will have employed internal auditors as well as external auditors. Apart from this, even RBI will also keep an inspection. Despite having auditing process done at so many levels, it is astounding to take note of why this scam was not revealed?

REPERCUSSIONS OF THE SCAM

The repercussions of the scam are as follows:

1. The confidence of the investor:
Punjab National Bank has announced that it will return to normalcy which will take around half a year. The share values or the market capitalization of Punjab National Bank as well as other involved banks have already fallen down. So, it will affect the investor's confidence in the functioning of the Punjab National bank and all the other banks which were involved with this false exchange.
2. Taxpayers taxed again?
On one side there is an argument that since the Government of India is a majority stakeholder in these particular banks; Government of India has to provide the financial assistance by pumping in capital into the

banking sector. But on the other side, there is already an existing argument that banking sector, especially public sector banks do not follow the guidelines, do not lend to creditworthy people as a result of which they may incur the losses. And if they are incurring the losses, what is the use of taking the taxpayers money and giving it to public sector banks. In essence, the argument is good money is being used for bad purposes.

3. The weakening of Bail – in Provision:
The Government of India has introduced Financial Resolution and Deposit Insurance (FRDI) Bill in August 2017 which contains one of the most contentious provisions called “Bail-in Provision”. If the Punjab National Bank had crumbled under the pressure because of higher scam, then the bank would be provided with the bail-in provision in which particular scenario the value of deposits would be taken a hit. Financial Resolutions and Deposit Insurance (FRDI) bills are designed to address the bankruptcy of financial institutions. Whenever a bank will not be able to do its business and it will not be able to repay the money of the common people, then it will help the bank to recover from the crisis. This FRDI Bill is being brought out to bail it out of this crisis. Long story short, the argument of “Bail-in Provision” would be weakened by the exposure of this particular scam.
4. Loopholes in the system:
This scam basically represents the loopholes which are present in the system. Banks, for the most part, deals with its credit hazard or operational dangers by actualizing certain policy

reforms which will guarantee that the investor's cash has the highest security. If the PNB itself is inclined to these transactions, then it represents the loopholes in the financial framework.

5. Sector under stress:

Both banking and jewelry sector will fall back into the stress. The banking sector is as of now under incredible worry as in

they need to clear out the Non-performing resources, they have to meet the credit requirements of the industrial sector and lastly, they have to meet the BASEL III provisions by 2019. PNB scam further imposes stress on the banking sector. Jewelry sector will be under the stress in the sense that because of these scams, it will be amazingly

troublesome for the diamond traders to get LoU's from many of the banks as the banks will not have confidence on these sorts of merchants.

6. Impact on Stock Markets:

There are mainly four banks that hit hard after the PNB scam namely Union Bank of India, Allahabad Bank, Axis Bank and State Bank of India.

Table 3: Impact on Banks on account of PNB Scam

S.No	Bank Name	Percentage Loss	Erosion in Market Capitalization	Gross NPA (Q3 FY18)
1.	Union Bank of India	-5.8%	Rs. 6,33 crores	13.03%
2.	Allahabad Bank	-9.9%	Rs. 4,84 crores	14.38%
3.	Axis Bank	-3.4%	Rs. 4,800 crores	5.3%
4.	State Bank of India	-3.34%	Rs. 8,329 crores	10.35%
Source: Times Now				
Period: Between 12th February 2018 – 15th February 2018				

Table 3 speaks to the effect on those four banks that have been influenced by the unapproved LoU's issued by PNB. The Union Bank of India lost -5.8% in market cap with the disintegration of Rs. 633 crores. It's Gross NPAs stood at 13.03% in Q3FY18. Allahabad Bank's stock price lost over -9.9% and its market cap are eroded by Rs. 484 crores. In Q3FY18, the bank reported a 5.4% reduction in total income with a net loss of Rs. 1263.79 crores and it's Gross NPAs stood at 14.38%. Axis Bank share price lost -3.4% and

it's market value fell over by Rs. 4,800 crores. It's Gross NPAs stood at 5.3% in Q3FY18. The share price of SBI tanked -3.34% and it's market value fell by Rs. 8,329 crores. In Q3FY18, the bank suffered a net loss of Rs. 2,416 crores and reported a Gross NPAs at 10.35%.

When talking about the jewelry sector, the scam has not abandoned them as well. Table 3 exhibits the effect of the scam on the jewelry sector.

Table 4: Impact on Jewelry Sector on account of PNB Scam

S. NO	Institution Name	Percentage Loss in Shares
1.	Gitanjali Gems	18%
2.	PC Jewelers	19.5%
3.	Tribhovandas Bhimji Zaveri	4.32%
4.	Thangamayil Jewelry	2%
5.	Rajesh Exports	1.34%

Nirav Modi fraud case has not only affected his company and Punjab National Bank but the jewelry sector as a whole. From table 4, it is clear that PC Jewelry was the one which has a maximum loss in its shares by 19.5% followed by Gitanjali Gems and many more.

LIC was also not spared by this scam. LIC is the biggest loser in this scam as it is the single largest institutional holding of all the four significantly hit banks.

Table 5: Loss of LIC on account of PNB Scam

S. No	Institution Name	LIC Shareholdings (%)	Fall in Share price (%)	The Loss in Value of Holding
1.	Punjab National Bank	13.93%	22.27%	Rs. 1,216 crores
2.	Union Bank of India	13.24%	7.22%	Rs. 1,04 crores
3.	Allahabad Bank	13.17%	10.25%	Rs. 65.8 crores
4.	Gitanjali Gems	2.88%	40.25%	Rs. 11.9 crores
Source: The Indian Express				

LIC owns 13.93% in PNB, 13.24% in the Union Bank of India, 13.17% in Allahabad Bank and 2.88% in Gitanjali Gems. From Table 5, it is evident that LIC incurred a loss of Rs. 1,216 crores on account of fall in the price of PNB, Rs. 104 crores from fall in the price of Union Bank of India, Rs. 65.8 from fall in the price of Allahabad Bank and Rs. 11.9 crores from fall in prices of Gitanjali Gems. The complete misfortune adds up to Rs. 1397.7 crores. Other than Gitanjali Gems, LIC has stakes in other listed jewelry manufacturing firms including PC Jewelers (2.18%) and Rajesh Exports (5.04%).

Credit Rating Agencies such as Moody's Investors Services, Fitch Ratings, CRISIL, ICRA etc. has downgraded the ratings of Punjab National Bank. Moody's Investors Service has downgraded the local and foreign currency deposit rating of Punjab National Bank (PNB) to Ba1/NP from Baa3/P-3. At the same time, Moody's has downgraded the bank's baseline credit assessment (BCA) and Adjusted BCA to 'b1' from 'ba3. Fitch Ratings has downgraded Punjab National Bank's viability rating- its view on the bank's creditworthiness to 'bb-' from 'bb' implying a higher risk of default by the bank. CRISIL has removed its ratings on the debt instruments of Punjab National Bank (PNB) from 'Rating Watch with Negative Implications' and downgraded the ratings to 'CRISIL AA+/CRISIL AA-' from 'CRISIL AAA/CRISIL AA'. India Ratings downgraded the rating of Punjab National Bank to "IND A++".

This scandal has had an adverse effect on all of its stakeholders including the Indian Government, employees of the PNB, Nirav Modi's company, and most of all the Indian citizens. Image of India's state-owned bank and diamond industry is tarnished. Indian banks are underrated by global rating companies such as Moody's and Fitch.

RECOMMENDATIONS

There are a few escape clauses in the financial framework that has been utilized by the fraudster. The quantities of bank fakes have been expanding year on year alongside that, RBI likewise takes part in making the financial framework exact and verified. The fakes might be fundamental because of the absence of satisfactory supervision of best administration, flawed motivation component set up for representatives; plot between the staff, corporate borrowers and outsider organizations; feeble administrative framework; absence of proper devices and innovations set up to distinguish early cautioning signs of a cheat; absence of familiarity with bank workers and clients; and absence of coordination among various banks over India and abroad. The postponements in legitimate methods for announcing and different escape clauses in the framework have been viewed as a portion of the significant purposes behind cheats and NPAs.

Following are some of the ways/ reforms which can be implemented by the Government of India to ensure that these kinds of transactions/scams donot happen again in the future.

Fix the banking sector: The Government of India will have to fix the banking sector and their lending rehearses.

Due diligence: The stakeholders who are involved in this particular scam should have alerted the officials in the Punjab National Bank long ago. Due diligence is the investigation or exercise of care that a reasonable business or person is expected to take before entering into an agreement or contract with another party, or an act with a certain standard of care. It can be a legal obligation, but the term will more commonly apply to voluntary investigations. So, the question arises is why was due diligence not conducted

in case of these Letter of Undertakings (LoU's)?

Autonomy to the banking sector: Autonomy to the banking sector is one of the main long-standing demands of various experts which the Government of India has not initiated yet. Independence is critical for a straightforward reason, numerous multiple times the landing practices of various public sector undertakings will be influenced by the Government of India. Since the banking sector is associated with credit business, they should have the self-governance to choose to whom they need to land to or to what degree they need to loan to. So, it is vital for the Government of India to furnish them with appropriate autonomy or self-governance so that they can make choices based on their risk taking capacity.

Independent specialized cadre: The government could consider an independent cadre of officers possessing financial as well as legal know-how in order in order to ensure early prevention of such frauds. In the short term, the government can consider forming this cadre with a pool of commercial bankers, RBI and CBI officials.

Risk management officer: Perhaps the most important way out or recommendation is the proper appointment of a risk management personnel in all public as well as private sector banks so as to safeguard themselves with multiple types of risk and as well as to ensure early detection of frauds.

Use of latest technology: The banks should utilize the best accessible IT frameworks and information examination so as to guarantee viable execution of the red-flagged account (RFA) and early warning signs (EWS) structure recommended by the RBI, which would help in better profiling

of clients by breaking down examples of their exchanges and rendering close continuous checking for banks.

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SUSTAINABLE TALENT MANAGEMENT PRACTICES IN A VUCA (VOLATILE, UNCERTAIN, COMPLEX, AMBIGUOUS) ENVIRONMENT

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ABSTRACT:

The term VUCA stands for Volatility, Uncertainty, Complexity and Ambiguity. This is a common phrase being used by the corporate world and was coined by the United States Army to describe the unfavourable surroundings that resulted from the end of cold war. The corporate environment is facing similar challenges in the current scenario. Rapid changes are taking place on political, economic, social and technological fronts. This has created deep implications for leaders and employees across organizations. Human Resource Management plays an important role in the current scenario as HR function revolves around managing people, their careers and workplace culture. In this process, talent management is considered to be one of the most important human resource management functions. However, talent management practices have not been formulated effectively in a number of organisations. Therefore, this generates a need for organisations to formulate and implement innovative talent management strategies that can help them sustain through the impact of changing times. The present paper is an attempt to study the major VUCA challenges influencing the three rapidly growing industries operating in Indian business environment namely Fast Moving Consumer Goods (FMCG), Pharma and Banking. The study is also an attempt to identify innovative talent management practices that have been undertaken by these sectors. Further, it suggests sustainable talent management practices that can be adopted by organisations and other industry segments striving in a VUCA environment. .

Keywords: VUCA (Volatile, Uncertain, Complex, Ambiguous), HR Practices, Talent Management Practices, Corporates, Industries.

INTRODUCTION

“VUCA is the new normal”.

We live in a world, which is Volatile, Uncertain, Complex and Ambiguous. VUCA was a notion introduced by the United States Army to describe the dynamic, unpredictable and unfavourable surroundings that resulted from the end of Cold War. It was subsequently adopted by leaders and organisations across the globe. The term VUCA started gaining momentum in the business circles in the late 1990s and became a popularized acronym in the private sector with the onset of Financial Crisis 2008-09. This is an on-going phenomenon; all the forecasts suggest that VUCA is going to stay with us in future. This rapidly and constantly changing business environment represents the new normal. Organizations and employees are struggling to manage such situations which are beyond their control. There are different sets of VUCA factors

influencing different industries in India. This has forced organisations and industry segments across geographies to revamp their HR strategies to be able to sustain through VUCA times. This paper is an attempt to identify the innovative talent management practices that can be adopted by organisations and industries striving in a VUCA environment. Further, it also discusses the steps that can be taken for sustainable talent management in changing times.

Defining VUCA

VUCA which stands for Volatility, Uncertainty, Complexity and Ambiguity represents the way organisations view themselves in the current scenario and how they can prepare themselves for the future. It has become important for organisations to think strategically and reframe VUCA challenges into opportunities. “VUCA is like an on-going test that any organization needs

to pass in order to succeed.”(Sahu & Panda, 2016)

VUCA comprises of four dimensions (Bennett and Lemoine, 2014):

- i) Volatility: Volatility is defined as a relatively unstable change and for which the duration is unknown.
Example: Currency Instability
- ii) Uncertainty: Uncertainty is defined as the lack of predictability of events that means even though cause and effect relationships may be understood; it becomes difficult to analyze the possible outcomes of future.
One of the examples of Uncertainty is Terrorism
- iii) Complexity: Complexity is defined as a situation or a phenomenon having many interconnected variables resulting in an overloaded

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- information network. Example: Doing business in foreign markets is complex
- iv) Ambiguity: Ambiguity is defined as lack of clarity. In other words, when the cause and effect relationship is unclear and there is possibility of making more than one interpretation. An example for Ambiguity is transition from legacy Mobile phones to modern era smart phones. The period of transition.

Impact of VUCA on Indian Market

Any developing nation exists in a VUCA environment for the very fact that it goes under various changes in order to develop itself as an economy. India, being one of the largest developing nations, is no different. Few factors which lead to a VUCA environment in India are frequent regulatory changes, uncertain & complex government policies, ambiguity driven by the number of cultures and the population of the country, resulting in changing demographic patterns of consumers based on geography, gender, caste etc.

There are several VUCA challenges impacting three major industries of India viz. FMCG, Pharma and Banking which have been discussed at a later stage in the literature review section.

Overview of Indian FMCG, Pharma and Banking Industry:

FMCG Industry: FMCG products are relatively inexpensive products which are sold quickly and require little to no shopping efforts. It is divided into 3 major categories namely Food and Beverages, Personal Care and Household Care. It is the fourth largest sector and one of the key contributors of GDP to Indian economy. According to IBEF report, it was valued at 52.7 billion dollars and expected to reach 103.7 billion in the next 2 years.

Pharmaceutical Industry: Indian pharmaceutical industry is one of the

largest provider of generic drugs and one of the most successful sectors operating in India. It is further bifurcated into two major segments – Active Pharmaceutical Ingredients (APIs) and Formulations. It is expected to expand at a CAGR of 22% over 2015-2020.

Banking Industry: According to RBI, the banking sector in India is efficiently regulated and well capitalised. Indian banks have been resilient and withstood global downturns in an efficient manner. The Indian banking industry comprises of 26 banks in public sector, 21 banks in private sector, 49 foreign banks and a number of regional rural and cooperative banks.

In the emerging world of business, human resource function has gained momentum and moved up the value chain. It is no longer viewed as a support function; it is rather seen as a strategic function. One of the key features of human resources is managing talent.

Talent Management is defined as the process of attracting, developing, engaging and retaining talent. The top executives and HR function have always been focusing on the very basic aspects of talent management. However, in order to succeed, they require engaged and committed employees who are high-performing, which is possible through implementation of strategic talent management practices. (Bhattacharya, 2016)

In the study so far and the literature review as sighted later in this report, studies have been conducted on various VUCA factors impacting major industries of India. Studies also reflect that talent management is one of key aspects of human resource function as well as an important driver of organizational growth. Therefore, it becomes important to identify a pool of talent management practices that can be adopted by industries striving in

a VUCA environment.

REVIEW OF LITERATURE

We are living in a dynamic world which is changing at a fast pace. The change can be seen at every level of Maslow's hierarchy starting from our basic needs to self actualization. Similarly, the companies and leaders have been operating in an environment which is highly unstable. The consequences may be adverse. Organisations are trying to be proactive in this constantly changing and unpredictable world (Gruwez, 2017).

Doheny, Nagali and Weig (2012) assert that across many industries volatility, uncertainty and business complexity has been increasing at a fast rate. This has changed the nature and meaning of competition. In their study, they have highlighted several factors that have been haunting organisations across the globe. These include incremental globalisation, interconnected operations, and disruptive trends such as fluctuating demand, labour rates or commodity prices and other factors such as natural calamities. All these roadblocks have been rising in the recent years making market conditions even more challenging. Several studies show a broad consensus that the whole world is experiencing Volatility, Uncertainty, Complexity and Ambiguity. It is therefore important for leaders and organisations worldwide to think out of the box in order to stay abreast of the current unreliable scenario. (Bennett & Lemoine, 2014)

According to a study, India has always existed in a VUCA world. India is a cosmopolitan country with a lot of complexity and it is important for corporates to learn from the unpredictable nature around us. (Sabherwal, 2013). According to Economic Survey 2018, India will be facing various challenges in the coming time. Some of the challenges evident from the survey are raising oil prices,

India's agrarian crisis, the lending sector and increasing competition in technology sector. (Dash, 2018)

A survey report by KPMG found out that India has been operating in a highly volatile and uncertain environment with economic, regulatory and political conditions acting as major challenges. (Financial Express, 2015)

Talent Management – A Key Aspect of Human Resource Management

According to a survey conducted by Dun and Bradstreet in 2017, Talent Management is viewed as the best HR practice followed by Employee Engagement and Training &

Development. Hanif and Yunfei (2013) cited that different practices related to talent management play an important role for motivating and therefore retaining the talent in the organization. Different human resource functions like recruitments, training, performance management, succession planning etc. play a major role in the incorporation of effective talent management practices. Singh (2012) found out that in the era of globalization, talent management has become an important factor. The organizations therefore should understand their core competencies if they want to overpower their competitors.

VUCA Factors influencing fastest growing sectors operating in Indian Economy – FMCG, Pharma and Banking

The following section attempts to find out the issues, challenges and various VUCA factors impacting the three fastest growing industries of India namely Fast Moving Consumer Goods (FMCG), Pharmaceuticals and Banking. Prior studies carried out, outlined in a tabular form (Table 1, 2, 3, 4, 5, 6), will offer an opening, for the researchers for plausible future research to be performed.

Table 1: Review of the previous studies related to issues and challenges (VUCA Factors) influencing the Indian FMCG sector

S.No.	PURPOSE	OUTCOMES/VUCA CHALLENGES IMPACTING FMCG SECTOR	AUTHOR (S)
1	Investigated significance, features, trends and challenges faced by FMCG industry. The study also highlights strategies adopted by FMCG sector to sustain through changing times.	Cut-throat competition, fragmented landscape, aggressive marketing and poor infrastructure and lack of proper supply chain facilities are some of the challenges highlighted in the study.	Jayanthi (2017)
2	An attempt was made to gain insights into the FMCG sector and to study the growth factors and challenges impacting FMCG industry.	Issues and challenges facing FMCG industry include the following : Complicated tax structure, infrastructure issues, regulatory constraints, policy framework, change in consumer profile and emergence of alternative channels.	Patil(2016)
3	Identified features of FMCG industry operating in India.	Counterfeiting, poor supply chain infrastructure, fragmented retail landscape, large geographical expanse and clumsy taxation policy are some of the factors impacting the FMCG sector.	ASSOCHAM and TechSci Research (2016)

Table 2: Review of the previous studies related to issues and challenges (VUCA Factors) influencing the Indian Pharmaceutical sector

S.No.	PURPOSE	OUTCOMES/VUCA CHALLENGES IMPACTING PHARMA SECTOR	AUTHOR (S)
1	Investigated trends, opportunities and challenges facing Indian pharma industry.	The Indian pharma sector has been facing the following challenges in the last few years : Increased customer consolidation, large number of competitors, product approvals, decreased value from new product launches and increasing pricing control and protectionism.	FICCI(2018)

2	Explored VUCA trends and challenges impacting pharma industry.	VUCA factors extracted from the study include empowered patients, adoption of value based healthcare systems, emergence of new competitors, increase in superiority clinical trials, increased M&A activities, low investment in R&D.	Palnitkar(2016)
3	Identified challenges and opportunities facing Indian pharma sector.	Intellectual property protection, compliance issues, market access barriers, FDI policies, clinical trial policies and aggressive marketing practices are viewed as challenges impacting the pharma industry.	Chandra, Sridharan and Shwetha(2016)

Table 3: Review of the previous studies related to issues and challenges (VUCA Factors) influencing the Indian Banking sector

S.No.	PURPOSE	OUTCOMES/VUCA CHALLENGES IMPACTING BANKING SECTOR	AUTHOR (S)
1	Investigated issues and challenges in Indian banking industry.	The study has outlined the following issues : Privatization, larger non-performing assets, increasing competition, risk taking and deposit insurance.	Bhaumik and Mukherjee(2001)
2	Identified emerging challenges and issues in banking sector.	Challenges facing banking sector include emergence of competitors, rising customer expectations, non-performing assets, risk management, financial consumer protection, revolution of information technology, cyber threats and alternative modes of banking.	Sindhu(2018)
3	Explored the concurrent challenges, opportunities and general features of Indian banking industry.	Difficulty in reach to rural markets, risk management, market discipline and transparency, financial inclusion, employee and customer retention – these are some of the VUCA factors impacting banking industry.	Goyal and Joshi (2012)

Talent Management Practices formulated/currently in use by Indian FMCG, Pharma and Banking Sectors

The following section attempts to find out the Talent Management practices that can be undertaken to sustain through rapidly changing times. Each table depicts the talent management practices that have been adopted or are currently being used by the three fastest growing industries operating in India namely Fast Moving Consumer Goods (FMCG), Pharma and Banking.

Table 4: Review of the literature related to Talent Management practices and initiatives undertaken by the Indian FMCG Industry

S.No.	PURPOSE	TALENT MANAGEMENT PRACTICES UNDERTAKEN BY INDIAN FMCG SECTOR	AUTHOR (S)
1	The report gave an overview of features, trends, challenges and HR practices being used in Retail and FMCG sector.	Talent Management practices outlined in the report are improving employee retention and focus on employee development. This can be achieved by reducing time to reach the desired level of competence, by presenting attractive compensation plans, framing an efficient compliance plan, investment in technological infrastructure and making use of technology (analytics, automation) an essential part of the system.	Cornerstone (2010)
2	Explored the areas that can be addressed by HR to sustain through rapidly changing FMCG environment.	Recruitment, Development and Retention of talent should be directly linked to business strategy, build a talent pipeline aligned to business goals, hire the right fit – someone who has the right mix of skills ranging from sales to supply chain, inculcate performance and value based culture.	Root, Lannes and Booker (2011)

3	Identified retention strategies across profitable FMCG companies – PepsiCo, Jubilant Foodworks and Nestle	PepsiCo – Sends its top performers for an all expense paid trips. For eg : Recently, PepsiCo arranged an all expense paid trip for its young performers to Cannes. Jubilant FoodWorks- Has started a quarterly spot and chairman's award for employees that includes overseas trips. It has also introduced celebratory leaves not only for self but also to celebrate special days of family members. Nestle – Recognises its employees on a daily as well as weekly basis across factories and branches.	Bhushan and Verma (2016)
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Table 5: Review of the literature related to Talent Management practices and initiatives undertaken by the Indian Pharma Industry

S.No.	PURPOSE	TALENT MANAGEMENT PRACTICES UNDERTAKEN BY INDIAN PHARMA SECTOR	AUTHOR (S)
1	Studied talent management practices being used in pharma sector and examined their influence on the development of this sector.	Talent Attraction Strategies – Devising employee centric HR strategies, flexible work hours, rewards and favourable work environment. Talent Transition Strategies – Career planning , succession planning, internal job rotations and transfers Talent Retention Strategies – Job Security, employee feedback and recognition of top performers	Kumar, Kishore and Jahangir (2015)
2	Investigated talent management practices and explored issues of pharma companies in Sikkim.	Talent Management initiatives framed by the pharma companies : Linking workforce to business strategy, vision and mission, building succession pipeline, creating conducive work environment for better retention, devising suitable career growth and development plans, recognising and rewarding best performers.	Roy and Devi (2016)
3	Gained insights into talent acquisition practices undertaken by pharma giant – Dr. Reddy's Laboratories.	-Dr Reddy's Labs has an embedded system for acquisition of talent – a number of channels are used to attract best talent for the organisation. These include advertisements in print media, sourcing through social media, consultants, -Use of integrated HRIS system that enables talent analytics – helpful in mining relevant data from internal and external environment. -Innovative practices to attract talent at entry and latent level. -Talent Acquisition system is based on role-designation matrix. Eg: For RO level the turn-around time for hiring is 30 days , similarly for R1 and R2 level the TAT is 45 days so on and so forth for other levels. -Use of BOOMERANG policy i.e. re-employment or recruiting ex-employees back into the organisation.	Rao and Darshini (2016)

Table 6: Review of the literature related to Talent Management practices and initiatives undertaken by the Indian Banking Sector

S.No.	PURPOSE	TALENT MANAGEMENT PRACTICES UNDERTAKEN BY INDIAN BANKING SECTOR	AUTHOR (S)
1	Studied existing talent management practices adopted by private banks.	The following practices have been outlined in the study: Hiring talent according to business strategy, aligning workforce to vision, mission and company values, providing a holistic experience to employees by promoting talented work force and providing internal job transfers opportunities, promoting career progression, buddy programme for new joinees along with regular coaching and mentoring, innovative rewards and recognition programs, CSR initiatives and theme events that can be helpful for engaging employees in a better manner.	Pratibha and Balakrishnan (2014)
2	Investigated HR practices in Indian banking sector and their influence on organisational commitment.	Banks are following the following practices to manage talent : -Various nationalized banks are focusing improving their performance management system. -Empowering employees by providing them with proper information, an attractive rewards system and effective policies have been framed to keep the workforce motivated. -State Bank of India provided numerous short term employee benefits. Eg :casual leaves, medical benefit, trips etc are paid by the organisation in exchange of services rendered by employees. -Bank of Patiala has been focusing on improving culture of the organisation. They begin the day with a 4 minute meditation and prayer session. Similarly, Punjab National Bank has an innovative succession planning policy.	Singh and Sood (2017)
3	Investigated HR management practices and their influence on employee productivity with a special reference to banking industry in India.	The following practices have been framed to manage talent across private, public and foreign banks in India : Recruitment practices aligned to company vision, employee engagement and motivation, training and development, innovation , efficient performance management system, attractive compensation and benefits plan, employee accountability and participation, work life balance etc.	Khera (2010)

OBJECTIVES OF THE STUDY

1. To identify VUCA factors influencing some of the fastest growing sectors operating in Indian economy namely FMCG, Pharmaceutical and Banking.
2. To explore the talent management practices undertaken by these industries.

3. To suggest sustainable talent management practices that can be adopted by organisations and other industry segments striving in a VUCA environment.

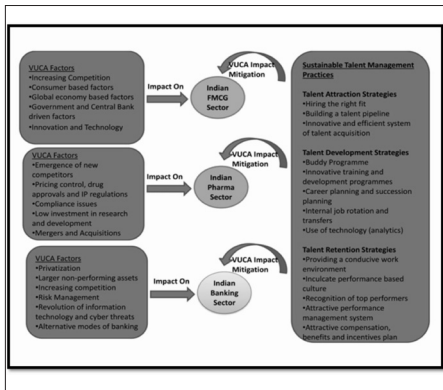
RESEARCH METHODOLOGY

The study is exploratory in nature and data has been collected from various

secondary sources. The research work investigates journals, research papers, organisational reports, government reports, media reports, articles available on websites and industry insights to identify and suggest sustainable talent management practices that can be adopted by organisations and industry segments striving in a VUCA environment.

FINDINGS

Figure 1: Framework showing sustainable talent management practices that can be adopted by organisations operating across Indian FMCG, Pharma and Banking sectors to be successful in a VUCA Environment



VUCA factors influencing the FMCG Industry operating in Indian Economy: Increasing competition, consumer based factors, global economy based factors, government and central bank driven factors, innovation and technology.

VUCA factors influencing the Pharmaceuticals Industry operating in Indian Economy: Emergence of new competitors, pricing control, drug approvals and IP regulations, compliance issues, low investment in research and development, mergers and acquisitions.

VUCA factors influencing the Banking Industry operating in Indian Economy: Privatization, larger non-performing assets, increasing competition, risk management, revolution of information technology, alternative modes of banking.

The following section investigates some of the practices that have been adopted by some of the most profitable and rapidly growing companies across the FMCG, Pharma and Banking. These findings provide a bird's eye view to practitioners, marketers and leaders across other organisations and industry

segments that have been struggling to cope with the rapidly changing times. Similar models can be formulated by other organisations that may help them sustain through the volatile environment.

Talent Attraction Strategies:

Building a talent pipeline: Firstly, it is important on the part of organisations to gauge what kind of talent is required to meet future demands. It is very important to anticipate the demand for talent in future. Farsighted companies keep a track of strategies to build a talent pipeline. Example: Procter & Gamble in China runs a Management Trainee program, which is believed to be its most trusted source of future leadership talent. Walmart has also been following a similar strategy. Another study on Indian banks by Kujur and Shah (2016) reveals that a pre-defined strategy of hiring is available in most banks. Similarly, pharma giants Dr. Reddy's Laboratories and Lupin Ltd have strong strategies in place that helps them keep a fast track on their talent pipeline.

Hiring the right fit: Profitable FMCG, Pharma and banking companies have been focusing on hiring talent with a multitude of skills ranging from sales to supply chain. Hiring a new employee with the right skills and someone possessing a mix bag of skills reduces time to proficiency. Example: At Unilever, a major position in marketing requires a mix of 30 skills ranging from technical skills to market research, media planning, general management etc. Kujur and Shah (2016) in their study on Indian banks found out both private as well as public sector banks select qualified personnel with the right service attitude and competence.

Innovative and organised system of acquiring talent: For profitable and large firms the process of acquiring talent is aligned with organisation's core values. The HR leaders look for talent

that is strategically aligned to the culture of the organisation. Example: Pharma giant Dr. Reddy's Laboratories has an embedded framework for acquisition; DRL makes use of innovative practices to attract talent at entry and lateral level. The Talent Acquisition system is based on role-designation matrix i.e. at R0 level the turn-around time for hiring is 30 days, similarly for R1 & R2 levels the TAT is 45 days, so on and so forth for subsequent levels. DRL has framed a BOOMERANG policy, which involves recruiting ex-employees back into the organisation. Similarly, Axis Bank has a unique program known as Axis Bank Reconnect. This is an initiative to recruit ex-women employees back into the organisation.

Talent Development Programmes

Innovative training programs to develop the right skills: The profitable companies focus on developing the right skills. It begins by identifying positions that are critical to business strategy; this is followed by deploying the talent which is the right fit for these mission critical roles. The last step is to develop and implement training and development initiatives that would improve the targeted areas and fill the gaps that were identified. This can include short-term and long-term global or local training programs. Examples: At Godrej, employees undergo an innovative training programme called 100 leaders programme; top 100 employees having leadership capabilities are identified. These employees are then differentiated, trained and groomed for leadership roles in future. Lupin Ltd, a leading pharma company has designed a business leadership programme to provide leadership training to their site leaders. Also, Bank of Baroda framed a programme targeting its frontline employees and personnel who have been posted overseas. It is called grooming and etiquettes session. Similarly, they are running another program to improve skills; it is called

as self-efficiency and effectiveness development (SEED).

Buddy Programme: This is an induction programme targeting the new joiners. This is provided as an effort to orient new employees to the organisation and its culture. An existing employee who has been in the organisation for over a year is assigned as the buddy of the newly joined and assists the new employee in cultural integration. This is a programme that has been adopted by numerous FMCG and Pharma organisations such as GlaxoSmithKline Consumer and Lupin Ltd. However, there is a lack of studies that discuss induction initiatives by banking sector. Therefore, this is one area that the banking industry can focus on and can orient the new joiners in a better manner.

Career Growth, Internal Job Transfers and Job Rotation: Rapidly growing and profitable companies across segments have been providing numerous career growth opportunities such as promotions, internal job transfers and job rotation. This is done in a way to provide a holistic experience to its employees. Example: According to a study by Kujur and Shah (2016) Indian banks have been providing attractive career development opportunities such as provision of educational opportunities at work place, providing timely promotions etc. Axis bank offers online certification courses to its employees through an initiative known as Coursera.

Talent Retention Strategies

Conducive Work Environment, Employee Motivation and Work Life Balance Initiatives: The concept of playing light music in the office was introduced by State Bank of India. Greater work autonomy is now provided to employees at all levels. Apart from banks, leading FMCG companies such as Godrej has been voted as one of the best consumer

companies to work. They follow a practice called as “Bedhadak Bolo”, this encourages employees to express their opinions without any hesitation. It has also come up with another programme known as Careers 2.0 which provides opportunity to female employees who are willing to restart their corporate life after a gap for whatsoever reasons. Many FMCG companies now offer part time working opportunities. Pharma companies lack provision of work life balance initiatives. Therefore, they can design initiatives to manage employee retention in a better manner.

Innovative Compensation Practices and Recognition of Top Performers: Some leading organisations are designing innovative compensation, benefits and incentives plan as a step towards attracting retaining talented workforce. Example: FMCG giants such as PepsiCo, Jubilant Foodworks and P&G have come up with innovative compensation practices. Best performers receive incentives in between a time period of 6-11 months, these companies provide an all expense paid overseas trips to its top performers. Similarly, banks such as State Bank of India provide numerous short term employee benefits ; casual leaves, medical benefit, trips etc are paid by the organisation in exchange of services rendered by employees. Bank of Patiala has been focusing on improving culture of the organisation. They begin the day with a 4 minute meditation and prayer session. Bank of Baroda from banking sector and Cipla Labs, a leading pharma company have designed recognition programmes such as employee of the month and spot recognition programme.

SUGGESTIONS

- Leaders, HR managers and practitioners across organisations and industry segments need innovative talent management practices to manage a large workforce and to be productive in a competitive and unstable environment.

- It becomes imperative for linking recruitment, development and retention strategies to vision, mission and business goals. There are a handful of organisations in the Indian business environment that have formulated and implemented creative strategies that are linked to the overall business goals. There is no doubt about the fact that these handful organisations are some of the most profitable and rapidly growing organisations operating in Indian business environment.

- The other start-ups, smaller organisations and leaders across industry segments can build similar models keeping the creative ones as their base. This may help them sustain through the rapidly changing landscape.

- Studies show that there is a huge gap in supply and demand of talent. Due to this scarcity of talented workforce in the market, all organisations chase talent aggressively. Therefore, organisations can frame attractive talent acquisition strategies to acquire the best talent such as building a talent pipeline, hiring the right fit with multitude skills and have an organised talent acquisition system in place.

- Talent Development is a second area that organisations need to pay attention to. Implementing out of the box talent development programmes such as buddy's programme, leadership development programme, skill development training, internal job transfers and promotions etc. may be helpful in providing better levels of service, a motivated work force and increased productivity and efficiency.

- The problem of attrition has become very common. Retaining employees has become more challenging than hiring them.

Hence, leaders and HR managers across organisations and industry segments should examine different strategies which can be used to reduce attrition and keep the employees motivated. Attractive compensation plans should be provided in the form of direct (salary, bonuses) and indirect pay (paid trips, paternity leaves etc.). Providing a conducive work environment and work life balance opportunities can be useful to retain employees.

IMPLICATIONS

The Indian business environment is operating in a VUCA landscape. There are several VUCA factors impacting

many organisations and industrial sectors. The top management, HR leaders and employers need to understand the importance of talent management in such a scenario. Organisations can use innovative practices by captivating core elements of talent management such as attraction, development, engagement and retention. This will help them gain a competitive advantage. It also should be noted that different skill sets are required across different industries and levels and hence different talent management strategies will be required to cater to the needs of different sectors. Talent Management is an ongoing process that would demand constant attention of leaders, employers and

HR practitioners. The industrial and academic researchers can investigate the impact of talent management practices on various VUCA factors and understand the relationship between the two which will in turn, facilitate HR managers to recommend best practices for their organisations.

LIMITATIONS

The limitations of the study have been related to time and biases of opinions gathered from secondary sources. The study is limited to three industries operating in Indian economy namely FMCG, Pharma and Banking due to time constraints.

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EFFECTS OF SOCIAL NETWORKING SITES ON THE ACADEMIC PERFORMANCE OF UNDERGRADUATE STUDENTS

Ambika Rathi* Ankur Budhiraja**

ABSTRACT:

The world is going through a constant technological change which has been brought about by young millennials. They are called digital natives, tech-savvy and what not, however the ground reality is that, yes they are born in the deep waters of the digital revolution paving their way into the new millennium. Digitalization is embedded into their systems not only physically but also psychologically. If their behavior is different from others it is because they have been born and reared in the light of a digital spectrum. They have gained electronic independence as quoted by Marshall McLuhan of the communication theory fame. However, this independence has made them dependent on the internet. These digital natives have mastered the art of social interactions so beautifully that they are almost addicted to such digital platforms. Facebook, Instagram, snapchat, twitter, tinder, linkedin are such platforms to name a few. Such platforms since their inception have undergone a dramatic change in their user base and user behavior pattern. Social networking sites help to create a social image through impression management and quick electronic word of mouth interaction (Shimpi 2018). Such interactions also lead to participative style of learning. The current study is an attempt to explore first and foremost the usage pattern of these students of these SNS, their behaviour pattern and the correlation of this behaviour on their academic performance.

Keywords: Social Networking Sites (SNSs), Millenials, Addiction, Digitalization.

INTRODUCTION

The world is going through a constant technological change which has been brought about by young millennial. They are called digital natives, tech-savvy and what not , however the ground reality is that, yes they are born in the deep waters of the digital revolution paving their way into the new millennium. Digitalization is embedded into their systems not only physically but also psychologically. If their behavior is different from others it is because they have been born and reared in the light of a digital spectrum.

The day dawns with the light of their mobile phones and ends when the battery gets exhausted. Their personalities get groomed with the help of the digital devices in the digital spaces. They are developing into twin identities of actual and virtual realities. They are evolving into capabilities which are surpassing the peripheries of the human mind, because it is not just the human minds at play but the digital world or the virtual reality which is now

unfolding with them. They are much more capable and evolved than their ancestors as they beautifully articulate the actual and the virtual lives. They have gained electronic independence as quoted by Marshall McLuhan of the communication theory fame. However, this independence has made them dependent on the internet. They are able to manage themselves on ground as well as virtually. It will be more appropriate if we say that they are more comfortable communicating virtually. Access to technology through gadgets and internet has opened new horizons and further new frontiers to be conquered.

Education and knowledge become two faced swords. The vast arena of knowledge at their fingertips is tipping towards a new realm of a new universe to be explored by them. The use of this knowledge to educate themselves is the challenge that this generation will face or is rather facing. The way they think, communicate and behave is certainly a matter of concern, because

the knowledge with which they feel liberated is like the widespread jungle fire which needs to be tamed. And are they capable enough to do that. In the use of this knowledge, not only their thought process, their learning outcomes, but their interactions have taken a 360-degree turn. They are able to maintain their identities, interactions and collaborations digitally in a unique manner only known to them. How to know new people, how to make friends with them, and how to exploit such relationships for their well being is the task of the so-called Social Networking Sites. The fabric of society allows you to weave your relationships in a manner which are mutually beneficial. However, these digital natives have mastered the art of social interactions so beautifully that they are almost addicted to such digital platforms. Facebook, Instagram, Snapchat, Twitter, Tinder, LinkedIn are such platforms to name a few. Such platforms since their inception have gone a dramatic change in their user base and user behavior pattern. Social networking sites help to create a social

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image through impression management and quick electronic word of mouth interaction (Shimpi 2018). Such interactions also lead to participative style of learning.

However, such sites carry very interesting features to let the participants spend more and more time on them. Initially what started as an interaction is now becoming more of addiction for these knowledge-fed and education-starved breed of digital natives.

Through this study, we would like to highlight the usage pattern of such population who are also undergraduate students and are pursuing courses which are career oriented. We are trying to explore first and foremost the usage pattern of these students of these SNS, their behaviour pattern and the correlation of this behaviour on their academic performance. We will be doing so with the help of a structured questionnaire on a sample base of around 100 students pursuing an undergraduate program. Since we have the access to their academic grades, therefore we will then study the effects of their behaviour pattern on their academic performance. The study relies greatly on the premise that what started as a collaborative learning and improved learning motivation due to enhanced relationships might have taken a different tangent of exploiting the privacy and an addiction to the media resulting in a waste of the precious academic time of the students. Therefore the research holds a key role in exploring the effect of their behaviour pattern which will include their interactions on the types of the sites they access and the quality and quantity of time they spent on such sites, on their academic performance and concentration of their studies.

LITERATURE REVIEW

Social media today has acquired wider acceptance among students and is

seen as an effective communication tool for learning and conducting interactive sessions simultaneously. Studies revealed that the impact of social media in enhancing education has been highly significant. Studies and opinions have brought forward four major advantages which social media has upon higher education. These include enhanced relationships, improved learning motivation, ability to get personalised course material, and developed collaborative abilities. Usman (2015), in his study, statistically revealed that students were eager to use social networking sites or SNS as a tool to support their educational activities. The study showed that SNSs had a positive impact on sharing knowledge among students through audio conferencing and web conferencing. Even some instructional games had an impact on sharing knowledge among them. His study showed that students fervent at sharing their ideas and views through online group discussions, instant messaging, and group chats. The findings of the study conducted by Timm and Perez (2010) showed that students relied on SNSs to a great extent for communicating and sharing information with online friends.

Social networking has actually brought a sense of collaboration and sharing among students to appraise and upgrade their educational quality. Social media has a profound impact on students of higher education. It has been widely used by the higher education institutes as it significantly contributes to their academic development through collaborative work, knowledge sharing and explored professional connections that enable them to seek job opportunities (Boateng & Amankwaa, 2016). Academic practitioners and management of various colleges have pushed education beyond the border. They have focused on the benefits of social media that helps student to emerge with new ideas, skills, and verdicts.

It enriches their educational efforts and result in higher level of engagement in learning (Srivastava, 2012). SNSs are an efficacious tool in reinforcing the education system among the students. They play an active role in socializing and networking along with providing a unique learning experience. They have also proven to be time-saving method to interact and participate with others. SNSs have been utilised by the students to form groups without any obstacle of time and space and help them to connect with each other, clear their doubts, think together on research activities, and become more integrated (Mhunpiew & Purayidathil, 2015). Social media has helped the students in knowledge creation (Dabbagh & Kitsantas, 2011). Research done by Goel and Singh (2016) showed that graduates were willing to use social networking sites that provided supplementary information for their curriculum and was of great utility. The research also highlighted that students had a positive approach towards social networking sites in improving academic performance.

Morollo(2014) showed that students admitted that SNSs had adequately helped them in their students, but there were other factors too on which their academic performance depended. A study conducted by Junco, Heibergert and Loken(2011) revealed a surprising conclusion that students of Twitter group secured greater GPAs and higher scores than the other group of non users. A research conducted on students and Universities by Amin, Mansoor, Hussain and Hashmat (2016) showed that they commonly used Facebook and Twitter to prepare their assignments, and it had become a routine work to access the sites which influenced their academic performance positively. Students reached out to more respondents by emailing the questionnaire while coordinating a research activity; communicated and shared information & materials on a

daily basis and augmented their learning skills. Moreover, communication pertaining to those of changing class schedule, academic events and notifications kept the students updated and connected. On the same line, the study found that social networking sites acted as a medium for networking among classmates, teachers, mentors and colleagues.

Online recruitment has emerged as a unique way for attracting potential candidates. SNSs provide a great opportunity for companies to get in touch with potential talents. SNSs act as an effective and time saving tool to approach employers. A survey showed that 94% of recruiters were currently using LinkedIn to find suitable candidates for their companies. Organisations progressively use YouTube for the purpose of sharing information about themselves, and mostly they upload videos showing off the personality of their workplaces. Users are a lot more prone to share a video than to share text. If companies persuade the sharing of their videos, they will reach even more potential hires (Hada& Gairola, 2015).

A significant change has been noted in teaching and learning activities in the modern era of strategic learning and practices. SNSs have become a prevalent medium for collaboration between students & a teacher not only within a defined time, but also beyond that defined time. Facebook and other SNSs are ubiquitous in everyday life, seeping into educational environments, and leaving educators little choice but to explore how it is best to incorporate SNS tools into teaching and learning (Madge, Meek, Wellens & Hooley, 2009). Sometimes, it was seen that teachers themselves participated in SNSs and groups to be a part of the learning culture and nourished and built the student group. The studies of researchers revealed that a sense of community in online

learning environment contributed to student motivation and increased learning (Rovai, 2002). A sense of community is also closely associated with interactions. Researchers have also shown that a sense of community helps to reduce feelings of isolation and facilitates learning by making more resources available in the form of other learners from whom learners can seek help. Although the social networking sites act as a means for collaboration, alliance and participation, they also restrict interactions. People having smartphones often prefer to interact with people online than to take a call or talk personally. The process seems to be easy, simple and effective and people also prefer it.

As the amount of time users spend on social networking sites continues to grow, their interactions with other offline content tends to decrease, which means that most of their socializing and socialization occurs within the glow of a computer or phone screen (Pew research internet Project, 2013). Chandra Johnson related it to the act of children exploring the world within their own eyes, compared to looking at the same things in a picture. The two can never be equalled. Since there is no face to face interaction, the real expression cannot be noted, and hence, after a time, expressions deaden. People start losing friends and families in due course of time. The growth of SNSs has showed significant changes in the personal lives of the users. SNSs have led to people expressing their emotions and verdicts through technological communication rather than expressing it in person (Wang, Chen & Liang, 2011).

SNSs offer public sharing of thoughts and personal stuff, which may create some grave issues. A research study conducted by Gross & Acquisti in 2005 on 4000 Facebook profiles of Carnegie Mellon University students found threats arising from the personal

information which they shared on the sites. This information could be used to estimate a person's social security number and finding sensitive Information. With SNSs, it has become easy to target one another. Cyber bullying is one of such forms, and SNSs have made it worse for the victims. Such open access to private life has opened up risks of being attacked. The victims are vulnerable online, and the insults made towards them are deadlier because of the computer masked the faces and the majority of the insults, tweets and taunts go on without repercussions.

With the emergence of social networks, there is now a specific focus on social aspects of trust. Social networks have fostered individual connectivity and have helped people to personalize their own communities (Sherchan, Nepal, & Paris, 2013). Studies have revealed that people have developed substantial trust on SNSs. Trust is more likely to emerge among strong ties, presumably due to greater emotional bonds, better knowledge and understanding, and the development of common ways of thinking and communication (Levin & Cross, 2004). Students in these cases have now become a cause of concern. SNSs provide young people with a space to work out identity and status, make sense of cultural cues, and negotiate public life. Free from adult regulation, young people's articulation and expression of various parts of their identity to their friends and others support critical peer based sociality (Boyd, 2007). Such processes of socialization are essential for psycho social development at a time when many young people are consolidating their identities, pulling up roots from their family, striving for independence, and are developing new types of relationships (Cobb, 1995). Livingstone (2008) in her study observed that the youth centered social networks that consist of self-constructed pages are one of the important segments of

managing their own identity, lifestyle, and social relationships. She also stated that such SNSs have helped in gaining confidence in an ego identity that is autonomous and socially valued (Livingstone, 2008). Studies have shown that people who are active online are likely to be active in group activities. The Pew Research Centre found that 80% of Internet users participated in groups, and students made an effective use of it. In crisis situations like the Haiti earthquake or Mumbai attacks, there were more broadcast based information sharing activities, where the users pushed information out to many users which was not directed towards one specific user (Hughes & Palen, 2009). Revere and Kovach (2011) reflected in their study that social online networking sites provided a 'continuous stream of information' to the students. Social media helps out students to follow professional societies and organizations. These also facilitate students in contributing their opinions and verdicts on different issues of discussions and questions across a network. All of these activities enrich their learning experience and enable individual knowledge management.

Some studies have highlighted the disadvantages of SNSs. Kuppaswamy and Narayan (2010) stated that SNSs grabbed total attention and concentration of students and diverted their time towards non educational and inappropriate actions and time killing by random searching. Olowu and Seri (2012), in a study conducted on students of different universities, found that students' use of SNS even pointed towards obsession. They ranked this as their 'top priority' and connected to it more in order to feel satisfied. A study conducted by Dau (2015) showed that students of tertiary institutions in Nigeria spent excessive time on SNSs, which affected their productivity. He concluded that the danger posed by exposing too much information online

cannot also be overemphasized and that students should be careful. Gok (2016) conducted a survey which highlighted that SNSs degraded socialization and habits of the students which diminished their personal productivity.

OBJECTIVES OF THE STUDY

The current research paper aims to accomplish the following objectives:

- To understand the general usage behaviour of Social Networking Sites (SNSs) of the NDIM students.
- To understand if there exists any relationship between the time spent on SNSs and its impact of students' academic scores.

RESEARCH METHODOLOGY

Universe and Sample Size: For the purpose of the current paper, the students of NDIM constitute the universe from which a sample of 100 students was taken to fill a structured, multiple choice questionnaire having statements aiming at eliciting responses in relation to the above stated objectives.

Data Collection: For the purpose of the current paper, both primary and secondary data was collected. While the primary data has been collected with the help of a questionnaire oriented towards BBA students of NDIM, secondary data has been sourced from various web sources, research journals and other articles relevant to the topic of this study.

Statistical Tool used: The responses collected were analysed so as to establish a correlation between the independent factor, 'time spent on Social Networking Sites' and dependent variable, 'Academic scores' of the NDIM students. The research also focused on finding out the level of 'addiction' of SNSs of these students. While the numeric responses of the number of hours spent on the SNSs were put under series X and the academic scores were put under

the series Y and correlation between the both was calculated using Karl Pearson's Coefficient of Correlation.

FINDINGS & ANALYSIS

The findings of the questionnaire responses are described as follows:

Age

We had taken an age cohort of 19, 20 and 21. Our major category of age falls in the age of 20 as 52.4% comprises of this age group.

Gender

Between males and females, around 59.5% were females and rest 40.5% were males constituting the total number of respondents.

Statement 1: Definition of Addiction

The researchers wanted to understand the definition of 'addiction' on such sites from the perspective of the respondents. To avoid giving a biased view, the respondents' point of view was taken in terms of number of hours of usage of SNSs could be described as Addiction. Out of the four choices - 1 hour, 2 hours, 3 hours or 4 hours, 50 % respondents feel that more than 4 hours could be described as Addiction. However, 23.9% feel more than 3 hours as addiction, 15.2% feel more than 2 hours is also Addiction. The most interesting part is that a small fraction, about 10.9% feels that even more than 1 hour is also considered Addiction.

Statement 2: Fear of losing out if not on digital space

A phenomenon of FOMO, described as Fear of Missing Out, is seen very prevalent among this age cohort. The researchers wanted to understand whether these students also feel that they are missing out some important part of their lives if they are not there on the digital space.

In this context, a strange phenomenon was seen with a majority of 45.7% respondents who have chosen

'MAYBE' as a response that shows that they are quite confused whether they experience this phenomenon or not. 31.3% feel that they do not feel the fear of missing out and responded 'NO', while rest 25% revealed that they feel strongly of this fear of missing out if they are not on the digital space.

Statement 3: Expenditure on mobile data

Expenditure on mobile data was a moderate ranging from Rs.150-200 /- for a majority of 56.3%. Another 20.8% spend Rs. 250-300, while 16.7% spend Rs. 450-500/- and only a minority of 6.3% spend more than Rs. 600/- on their mobile data.

This finding is not very conclusive as the respondents may be using the data of others or using internet through Wi-Fi.

Statement 4: Preference of SNSs

In the preference for various SNSs, Instagram has come out as the most popular among these millenials with a whopping 87.5%, while Facebook and Snapchat are almost of equal preference for 56.3% and 54.2% respectively. Twitter is also in their list but only a total of 8.2% prefer using it. Two interesting features in this context were surfaced: (i) they are not at all using Tinder as given in the options of responses and a considerable 28% is using LinkedIn which is a professional site.

Statement 5: Hourly usage of SNSs

The usage of SNSs in terms of number of hours is more than 3 hours with the highest percentage of 36% respondents, while 26% use more than 4 hours and 24% use more than 3 hours and only 14% is using more than 2 hours.

This question was specifically placed in between in an effort to dodge the respondents and also not to create a biased response as far as addiction is concerned.

Therefore, through this analysis, we can also conclude that about 26% feel that they are addicted to the social networking sites.

Statement 6: Harmful effects of SNSs

The response rate of students was either a clear YES by a total of 50% of the respondents who feel that there are harmful effects of social networking sites on students while another 50% chose MAY BE as their response. This may mean that either they are not aware or they do not want to acknowledge the fact that there are harmful effects of using SNSs.

Statement 7: Effects of SNSs usage

Effect of SNS usage can have other effects on students have found the maximum response of keeping them connected with relevant people on digital space with 47.3%.

An interesting trend is the response to the same question is that "it wastes their productive time" giving a response of 41.8%. Therefore they do feel that they are wasting their productive time on these social networking sites. It can be authenticated with a though meagre 7.3% that it is making them vulnerable to the digital world.

And last but not the least is the encroachment of their privacy get a mere 3.6%.

Statement 8: Effect of SNSs usage on academic performance

Talking about their academic performance a whopping 47.3% feel that use of SNS does affect their academic performance, where as another 47.3% also is confused that maybe it affects their academic performance.

To study this in detail, the researchers have taken a correlation of their usage of SNS on their academic performance which will be discussed in detail further.

Statement 9: Miscellaneous help of SNSs

Any help of these SNS in their academic performance again saw a interesting trend where in 58.2% responded that such sites help them in (gathering course material 30.9%, understanding the concepts 16.4%, to help in examination 10.9%).

A 14.5% also feel that there is no such a help from such SNS is there.

Results of Karl Pearson's Correlation Summarised:

- The research proved that there is a string positive correlation between use of SNSs and academic performance.
- Also there is a positive correlation between SNSs' usage and remaining updated on social media space
- There is not so strong correlation between SNS usage and better performance in exams despite the fact that the respondents found these sites helpful in gathering content as notes
- There is a high correlation between usage of social networking sites and harmful effects for individuals.

CONCLUSION

After a thorough analysis of questionnaire responses, we can conclude that usage of social networking sites is considered to be an addiction which affects individual students in different ways. As far as the positive outcomes are concerned, these sites are a good source of updated information provided students use them like that. Also, these are somewhat helpful in rendering help to students in their academics by way of notes and ready reference material handily available during exam days. SNSs have been considered a negative element by some of the student respondents who feel that it acts as a distraction to them and they are tempted to watch videos

and content other than their relevant stuff. On the whole it can be therefore concluded that if used in right ways and for the right amount of time, SNSs can be beneficial and may lead to positive consequences.

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SELF PERCEIVED APTITUDE AND COMMITMENT: A STUDY OF HIGHER EDUCATIONAL INSTITUTIONS IN NCT. DELHI

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ABSTRACT:

In a competitive globalized era, higher education institutions need to concentrate on employee aptitude to ensure right performance and delivery. A right aptitude can trigger thrust for development and may ensure holistic development in this competitive world. Teaching community is not merely treated as the factor of production but is important in determining fate of a nation as well as of a race. In national reconstruction too, the teachers play an important role. Teaching and learning are the key drivers of knowledge and innovations and a favourable and positive attitude of a resource person often complements it. Effective teaching results from a teacher's skill at creating both intellectual excitement and positive rapport in students, the kind of emotions and relationships that motivate them to do their best work. As teachers have not only the capacity but also the cherished desire to enhance our professional competence. The effective and productive learning in the higher educational institutions can be efficiently complemented and enhanced with a directed positive attitude of a teacher and finally it shapes the learning desires and their respective outcomes in a desired direction. As teachers have not only the capacity but also the cherished desire to enhance our professional competence. The present research makes an attempt to find out different variables that affects attitude of a teacher in government funded and self financed higher educational institutions and also consider the impact of important variables like gender, payments and emoluments, qualifications etc on the attitude of teachers. The research work also makes an attempt to carry out a comparative study of the work commitments of teachers associated with government aided and self financed higher educational institutions.

Keywords: Self Financed, Government Aided, Attitude, Teachers, Higher Educational Institutions.

INTRODUCTION

Education plays a vital role in India, where it has helped improve the country's economy and plays a vital part in its ongoing development. Originally, technical education in India was provided exclusively by government-operated institutes, but increasing demand for technically qualified personnel led to the establishment of other higher education institutions

In a competitive globalized era, higher education institutions need to concentrate on employee aptitude to ensure right performance and delivery. A right aptitude can trigger thrust for development and may ensure holistic development in this competitive world. Teaching community is not merely treated as the factor of production but is important in determining fate of a nation as well as of a race. In national reconstruction too the teachers play an important role. Teaching

and learning ource person often complements it. Effective teaching results from a teacher's skill at creating both intellectual excitement and positive rapport in students, the kind of emotions and relationships that motivate them to do their best work. As teachers have not only the capacity but also the cherished desire to enhance our professional competence. The effective and productive learning in the higher educational institutions can be efficiently complimented and enhanced with a directed positive attitude of a teacher and finally it shapes the learning desires and their respective outcomes in a desired direction. As teachers have not only the capacity but also the cherished desire to enhance our professional competence.

Organizational/ Work Commitment Commitment is complex and a multi-faceted construct, and can take different forms. Work commitment has

been defined as the relative importance between work and one's self (Loscoco, 1989). Work commitment is seen as a person's adherence to work ethic, commitment to a career/profession, job involvement, and organizational commitment (Morrow, 1993). Individuals can feel committed to an organization, top management, supervisors, or a particular work group. Commitment has been examined with regard to "career, union and profession" (Darolia, Darolia, & Kumari, 2010). Studies showing instances of high work commitment have also proven to highly relate to organizational performance. Organizational/ Work commitment is a mental state or attitude that represents desire, need or obligation to continue working in an organization. In this context, desire means a personal willingness or tendency to continue serving an organization.

They further highlighted the special

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case of (Educational Sector) private university employees. Ruiz B. and Adams S., (2003), have explained about the impact of new methodologies adoption on attitude and hence on teamwork and team effectiveness in Higher Education. Sandhu R., (2015), has explained the impact of type of college, gender, age, teaching experience, emotional intelligence and attitude towards teaching on the job-satisfaction of teacher educators. Saeed R. et al. (2013), have highlighted the effect of manager's attitude, organizational culture, personal problems, job content and financial rewards in the banking sector of Pakistan. Singh J.K. and Jain M., (2013), have explained the meaning of job performance for employees and the factors on which it depends. Their work also highlights the impact of job performance on satisfaction level of employees. Susanty A. and Miradipta R., (2013), has highlighted the relationship between attitude and work/ Performance and the relationship between organizational commitment and work performance separately. Need means one is obliged to continue serving an organization because he or she has already invested in it. Furthermore, obligation denotes the liabilities, responsibilities and duties one has toward an organization. From another perspective, organizational commitment refers to a sense of belonging and attachment to the organization. Therefore, organizational commitment denotes "employee loyalty to the organization and an ongoing process through which the employees express their interest in the organization, its success and its continuous efficiency. According to Moody et al., commitment designates something beyond determined duties. Expressing commitment in practice is essential for performing job tasks especially in key positions. Cook and Wall also presented the three concepts of "loyalty", "sense of identity and identification", and "readiness" for commitment. The success or failure of

an organization is closely related to the effort and motivation of its employees. The motivation of employees is often the product of their commitment towards their job or career. Work commitment is an extremely important topic for organizations to understand. The level to which an employee engages in his or her work (job involvement), commits to and believes in the organization's goals and purpose (organizational commitment), desires to work (work ethic), and commits to a specific career or profession can all have an impact on an organization.

Teachers are the pillars in education and the success of students largely depends on the right aptitude and attitude of teaching staff (Lal R. and Shergil S. S., 2012). Nobody can effectively take his place or influence children in the manner and to the degree it is possible, for him alone to do. The teachers are focal point and play a central role in the education system and are connecting link between students and education system of a nation. The impact of any kind of schedule or programme related to education depends on the effectiveness and productivity of teacher; the two mentioned characteristics are in turn influenced by right aptitude of a teacher.

Teachers should realize their importance in the education system and should carry a right and balanced aptitude towards their profession and should be acting like a change agents. It is the role of teacher educators to prepare future teachers and educational workers to be life-long learners and to create a learning society (Khan M.S. et al., 2014). But, teacher educators can play such type of role effectively only if their own education is better and is imparted in a proper manner.

The infrastructure, policies and strategies developed by ministries should supplement the aptitude and attitude amongst teachers working in

government aided and self financed college equally (Jose M.M., 2008). The performance of a teacher could be treated as a dependent variable hovering around, structure, strategy and policy followed, physiological and psychological environment, motivational methods etc followed by organization as a synchronized tool (Ramon R., 2017). Right aptitude is the source to create competitive advantage for the organization and higher educational institutes, hence focus should be given on identification and development of right policies and strategies to nurture, develop and evaluate right aptitude among employees and teachers (John J S., 2016). The employee performance could be treated as a dependent variable hovering around, structure, strategy and policy followed, physiological and psychological environment, motivational methods etc followed by organization as a synchronized tool. In spite of an uneven support system, the teachers should carry a positive attitude towards their profession.

OBJECTIVE OF THE STUDY

- To study the attitude and work commitment of teachers working in higher educational institutions in NCR
- To find out whether there is significant difference in attitude and work commitment of male as compared to female teaching staff or not

HYPOTHESIS OF THE STUDY

There is no significant difference between attitude and work commitment between male and female teachers working in higher educational institutions in NCR.

RESEARCH METHODOLOGY

- Research Design - Exploratory
- Sampling technique – Random
- Sample size – 180 (50 male teachers and 130 female teachers)
- Sampling Unit – Teachers working in higher educational Institutions in NCR

- Data Sources – Primary and Secondary (teachers’ attitude Inventory by S. K Ahluwalia has been used for primary data collection)

SAMPLING DETAILS

Sample Size - The total sample size considered was of 180 respondents,

the bifurcation of which has been mentioned below:

Table: 1 sample size

Sl No.	Nature of College	Number of Male Teacher Respondent	Number of Female Teacher Respondent
1	Government aided	27	63
2	Self Financed	23	67

Table: 2 Sampling Frame

Sl No.	Items	Sampling Technique
1	Selection of the field of Study	Convenience and Judgmental
2	Selection of respondents	Simple Random

Data Collection Sources

Both primary and secondary sources were used for data collection. Secondary data was collected with the help of research papers, journals, websites and other relevant published sources

Table 3: Tool for primary Data Collection

Sl No.	Item	Scale Used
1	Teaching Aptitude	TAT developed by Jai Prakash and R. P. Srivastava

Brief description of TAT developed by Jai Prakash and R. P. Srivastava

The TAT scale to measure teacher’s aptitude was developed by Jai Prakash and R. P. Srivastava and it helps to measure the aptitude of teachers towards teaching profession. This standard scale follows Otis and Smith method to capture and analyze information. The scale is a 10 item scale and under each item 15 sub

categories (Sub – tests) are there. The response is taken with the help of Likert scale. The reliability of the test was calculated by split-half method using Guttman and Spearman-Brown Prophecy formula which yielded the coefficient of correlations as 0.891 and 0.91 respectively.

The scale has following sub areas as sub test

- Cooperative Attitude
- Kindliness
- Patience
- Wide interest
- Fairness
- Moral Character
- Discipline
- Optimism
- Scholarly Taste
- Enthusiasm

DESCRIPTIVE STATISTICS

Group	Mean	Standard Deviation	SED	Calculated ‘t’ value	Degree of freedom	value of ‘t’ at .05 and .01 levels	Significance Level
Male	186.94	31.93	3.56	1.86	333	1.97(.05),	Not significant
Female	180.32	33.41				2.34(.01)	

Variables Considered

- Dependent Variable - A dependent variable is the variable being tested and measured in a scientific experiment. Pertaining to the study is teaching Aptitude is dependent variable.
- Independent Variables – it highlights/ refers the characteristics that are either being observed or controlled by the investigator/ researcher in an attempt to ascertain its comparison to other variable. Pertaining to the study conducted the independent variables is gender

Male Teachers

Attitude Categories	Male Teachers
	[P25 =171 & P75 =188]
	No.
High Attitude	18
Moderate Attitude	12
Low Attitude	20
N	50

Female Teachers

Attitude Categories	Female Teachers
	[P25 =166 & P75 =185]
	No.
High Attitude	41
Moderate Attitude	79
Low Attitude	40
N	160

DATA ANALYSIS**Male Teachers**

Chart Showing Teaching Aptitude of Male Teachers

Nature of College	N	Mean	S.D.	df	t` value
Government - aided	27	192.47	49.6	48	3.2099**
Self Financed	23	184.31	27.2		

(** Level of Significance @ 0.01)

In accordance with the above table

- The mean value of Male teachers of Government aided colleges was found to be 192.47
- The mean value of Male teachers of self financed colleges was found to be 184.31
- The S.D. Value of Male teachers of Government aided colleges was found to be 49.6
- The S.D. value of Male teachers of Government aided colleges was found to be 27.2
- Degree of freedom was 48

The calculated values of t is compared to the value which are tabulated values of t and it was found that at 0.01 level of significance the values are significant, therefore the null hypothesis considered is rejected and the alternating hypothesis stating the significant difference in teaching aptitude of male teachers in government aided and self finance colleges tends to be accepted.

After analysis of the data it was also stated that the teaching aptitude of the male teachers is more intense in self financed colleges as compared to the government aided colleges as there is a significant difference in mean and standard deviations.

Chart Showing Component wise teaching Aptitude of Male Teachers

Component	Nature of College	N	Mean	S.D.	df	`t` value
Cooperative Attitude	Government - aided	27	21.63	9.62	48	10.94**
	Self Financed	23	16.26	8.76		
Kindness	Government - aided	27	17.80	8.48	48	6.53**
	Self Financed	23	20.17	8.39		
Patience	Government - aided	27	15.97	11.19	48	1.31
	Self Financed	23	16.81	13.32		
Wide interest	Government - aided	27	20.23	8.53	48	1.53
	Self Financed	23	17.52	8.72		
Fairness	Government - aided	27	22.06	9.31	48	1.81**
	Self Financed	23	22.17	8.46		
Moral Character	Government - aided	27	19.43	9.15	48	6.05**
	Self Financed	23	16.83	6.9		
Discipline	Government - aided	27	18.93	9.71	48	5.21**
	Self Financed	23	16.57	7.17		
Optimism	Government - aided	27	20.23	10.07	48	4.56**
	Self Financed	23	17.96	8.47		
Scholarly Taste	Government - aided	27	16.53	9.35	48	3.25**
	Self Financed	23	18.27	8.46		
Enthusiasm	Government - aided	27	15.67	10.23	48	4.83**
	Self Financed	23	19.38	10.44		
(** Level of Significance (@ 0.01)						

After analyzing the above table it was found that Male teachers in Self financed colleges are intense in terms of Fairness, cooperative attitude, discipline and optimism as the mean score obtained are higher in above mentioned cases as compared to the male teachers of Government aided colleges. Whereas the male teaching staff of government aided colleges are intense in terms of patience and wide interest component of their teaching aptitude as their mean score are comparative higher in the respective components.

Female Teachers

Chart Showing Teaching Aptitude of Female Teachers

Nature of College	N	Mean	S.D.	df	't' value
Government - aided	63	175.27	55.26	128	3.905**
Self Financed	67	180.17	36.33		
(** Level of Significance @ 0.01)					

In accordance with the above table

- The mean value of female teachers of Government aided colleges was found to be 175.27
- The mean value of female teachers of Self financed colleges was found to be 180.17
- The S.D. Value of female teachers of Government aided colleges was found to be 55.26
- The S.D. value of female teachers of Government aided colleges was found to be 36.33
- Degree of freedom was 128

The calculated values of t is compared to the value which are tabulated values of t and it was found that at 0.01 level of significance the values are significant, therefore the null hypothesis considered is rejected and the alternating hypothesis stating the significant difference in teaching aptitude of female teachers in government aided and self finance colleges tends to be accepted. After analysis of the data it was also stated that the teaching aptitude of the female teachers in more intense in self finance colleges as compared to the government aided college as there is a significant difference in mean and standard deviations.

Chart Showing Component wise teaching Aptitude of Female Teachers

Component	Nature of College	N	Mean	S.D.	df	't' value
Cooperative Attitude	Government - aided	63	17.63	9.62	128	15.94**
	Self Financed	67	14.26	8.76		
Kindness	Government - aided	63	30.80	8.48	128	76.53**
	Self Financed	67	17.17	8.39		
Patience	Government - aided	63	16.97	11.19	128	13.31**
	Self Financed	67	12.81	13.32		
Wide interest	Government - aided	63	28.23	8.53	128	15.53**
	Self Financed	67	12.52	8.72		
Fairness	Government - aided	63	18.06	9.31	128	12.23**
	Self Financed	67	20.17	8.46		
Moral Character	Government - aided	63	17.43	9.15	128	8.25**
	Self Financed	67	19.83	6.9		
Discipline	Government - aided	63	18.93	9.71	128	4.21**
	Self Financed	67	17.57	7.17		
Optimism	Government - aided	63	17.23	10.07	128	1.66**
	Self Financed	67	17.96	8.47		
Scholarly Taste	Government - aided	63	15.53	9.35	128	8.45**
	Self Financed	67	17.27	8.46		
Enthusiasm	Government - aided	63	15.67	10.23	128	12.83**
	Self Financed	67	19.38	10.44		
(** Level of Significance (@ 0.01)						

After analysis of data it was clarified that in terms of Moral Character, Scholarly Taste, Fairness, Enthusiasm and wide interest component of teaching aptitude the female teachers working in self financed colleges are more intense as their recorded mean scores are high as compared to the female teaching staff of government aided colleges, where as the female teaching staff of government college are more intense in terms of kindness, patience and discipline as the recorded mean is high in these categories as compared to the female teaching staff working in self financed colleges.

FINDINGS

Pertaining to the study conducted it was recorded that the teaching aptitude of Male teachers in Government financed college is significantly higher as compared to their counterparts working in a self financed system and the same aspect was found to be

opposite in case of female teachers. The aptitude of female teachers working in self financed colleges was found to be higher as compared to those female teachers who are working with government aided colleges. In case of male teachers who are working in government aided colleges the aptitude related to moral character, discipline, optimism, cooperation and fairness except kindness, scholarly aspects and enthusiasm are higher and intense as compared to those male teachers who are working with self financed colleges. However with respect to wide interest the aptitude of both, male teachers working in government aided and self financed colleges were similar. The findings also suggest that the teaching aptitude of female teachers in self financed colleges with respect to moral character, scholarly taste, enthusiasm, fairness and wide interest is significantly high as compared to the female teachers of government

aided colleges. However with respect to attributes like Kindness, Cooperation and Discipline the aptitude of female teachers of Government aided colleges are more significant as compared to their counterparts in self financed colleges.

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CREDIT RISK ASSESSMENT SYSTEM IN INDIAN BANKING INDUSTRY

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ABSTRACT:

The determinants of the credit risk assessment of banks in emerging economies have received limited attention in the literature. The major purpose of credit risk assessment is to identify risks in lending situations, draw conclusion regarding the likelihood of payment and make recommendations as to the proper type and structure of the loan in the light of the perceived financing needs and risks.

Credit risk assessment involves the examination of the link between management performance or capacity and the working relationship of a company's assets, liabilities and equity as shown on its balance sheet, the result of its operations as reflected in its income statement and cash flow. The objective of this paper is to understand the credit risk assessment process and its implications on quality of credit and risks associated so on.

Keywords: Credit, Collateral, Cash Flows, Loan Proposal, Credit Risk, Credit risk assessment, Lending.

INTRODUCTION

Credit is much older than writing. Hammurabi's code, which codified legal thinking around 4,000 years ago in Mesopotamia did not outline the basic rules of borrowing and did not address the concepts such as interest, collateral and default. These concepts appear to have been too well known to require explanation. However, the Code did emphasize that failure to pay a debt is a crime that should be treated identically to theft and fraud. From there arises the credit risk, thus loan providing officer is required to perform credit risk assessment to minimize the bank's risk in each transaction and obtain the maximum protection to the bank against any possible default.

Credit risk means the possibility of loss associated with diminution in the credit quality of borrowers. In a portfolio, losses stem from outright default due to inability or unwillingness of a customer or counter party to meet, commitments in relation to lending, trading, settlement and other financial transactions.

The past decade has seen dramatic losses in the banking industry. Companies

that had been performing well suddenly announced large losses due to credit exposures that turned sour, interest rate positions taken, or derivative exposures that may or may not have been assumed to hedge balance sheet risk. In response to this, commercial banks have almost universally embarked upon an upgrading of their risk management and control systems.

Credit risk assessment is the quantitative and qualitative analysis of a company, which helps to determine the company's debt service capacity, or how capable it is to pay back its principal payments to the bank or other creditors. Credit risk assessment is concerned with identifying, evaluating and mitigating those risks, which may result in a company not being able to meet its creditors' claims.

Credit risk assessment is the method by which one calculates the creditworthiness of a business or organization. In other words, it is the evaluation of the ability of a company to honor its financial obligations. The audited financial statements of a large company might be analyzed when it issues or has issued bonds. Or, a bank

may analyze the financial statements of a small business before making or renewing a commercial loan. The term refers to either case, whether the business is large or small.

The objective of the loan officer, while doing credit risk assessment is to look at both the borrower and the lending facility being proposed to assign a risk rating and provide the estimate about the amount of loss that the lender would suffer in the event of default. The risk rating is derived by estimating the probability of default by the borrower at a given confidence level over the life of the facility and by estimating the amount of loss that the lender would suffer in the event of default.

Credit risk assessment involves a wide variety of financial analysis techniques including ratio and trend analysis as well as the creation of projections and a detailed analysis of cash flows. Credit risk assessment also includes an examination of collateral and other sources of repayment as well as credit history and management ability. Analysts attempt to predict the probability that a borrower will default on its debts, and also the severity of

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losses in the event of default. Credit spreads—the difference in interest rates between theoretically “risk-free” investments such as U.S. treasuries or LIBOR and investments that carry some risk of default—reflect credit risk assessment by financial market participants.

Before approving a commercial loan, a bank will look at all of these factors with the primary emphasis being the cash flow of the borrower. A typical measurement of repayment ability is the debt service coverage ratio. A credit analyst at a bank will measure the cash generated by a business (before interest expense and excluding depreciation and any other non-cash or extraordinary expenses). The debt service coverage ratio divides this cash flow amount by the debt service (both principal and interest payments on all loans) that will be required to be met. Commercial bankers like to see debt service coverage of at least 120 percent. In other words, the debt service coverage ratio should be 1.2 or higher to show that an extra cushion exists and that the business can afford its debt requirements.

LITERATURE REVIEW

In recent years, with the trend of the economic globalization and volatility of financial market, credit risk management will be the focus in finance. The field of credit risk and corporate bankruptcy prediction gained considerable momentum (Bharath and Shumway, 2008; Davydenko, 2008; Korteweg and Polson, 2008) due to the increased competition in the field and the challenges of the present financial crisis. Credit risk is one of the main risks of commercial banks that will affect the banks' ability of sustainable operation.

Credit risk assessment is performed through the development of models usually based on a classification approach, in order to distinguish potential defaulters from non-

defaulters. Generally, classification refers to the assignment of a finite set of objects into predefined classes according to Altman, Avery, Eisenbeis and Stinkey (1981) and Doumplos and Zopounidis (2002).

First, since credit risk or credit quality is highly correlated with information asymmetry or monitoring activities as documented by Blackwell and Kidwell (1988), Booth (1992) and Blackwell and Winters (1997), existing theoretical and empirical work developed by Buser, Chen and Kane (1981), Benston (1983), Goodman and Santomero (1986), Kane (1987), Merton (1977), Jensen (1986), Stultz (1990), Kahane (1977), Kim and Santomero (1988), Koehn and Santomero (1980), Saunders, Strock and Travlos (1990) and Galai and Masulis (1976).

If a bank is highly profitable, it can manage enough capital from retained earnings and from the market (See Garg (2019)). The government would not have to chip in. Every once in a while, economies suffer banking crisis and financial emergencies, and governments need to implant capital into privately owned banks. There have been nearly 100 episodes of banking crisis and financial emergencies in nearly the same number of economies in the world since 1971. Governments spent an expected 13 per cent of GDP on the average to clean up their monetary frameworks. In many economies, the cost has been upwards of 50 per cent of GDP.

To clarify how banks actually underwrite loans, Uchida (2011) employed unique data on small and medium-sized enterprises (SMEs) in Japan obtained from the Management Survey of Corporate Finance Issues in the Kansai Area in June 2005. In this survey, a responding firm (borrower) answers questions on the extent to which its main bank focuses on (or emphasizes) 22 firm characteristics when the bank

underwrites its loans. This information enabled to measure the emphasis that banks place on their screening process. On balance, they find that the three most important factors when banks screen borrowers are their relationship with the borrower, the strength of the borrower's financial statements, and the collateral and/or guarantee pledged. It is interesting that these respectively correspond to soft information, hard information, and collateral/guarantees, all considered important factors when banks screen loans. They are also consistent with the classification of lending technologies in Berger and Udell (2002, 2006), i.e., relationship lending, financial statement lending, and fixed asset lending.

The credit creation process works smoothly when funds are transferred from ultimate savers to borrower (Bernanke, 1993). There are many potential sources of risk, including liquidity risk, credit risk, interest rate risk, market risk, foreign exchange risk and political risks (Campbell, 2007). However, credit risk is the biggest risk faced by banks and financial intermediaries (Gray, Cassidy, & RBA., 1997). The indicators of credit risk include the level of bad loans (Non-performing loans), problem loans or provision for loan losses (Jimenez & Saurina, 2006). Credit risk is the risk that a loan which has been granted by a bank, will not be either partially repaid on time or fully (Campbell, 2007), and where there is a risk of customer or counterparty default (Gray, et al., 1997).

Credit risk management processes enforce the banks to establish a clear process in for approving new credit as well as for the extension to existing credit. These processes also follow monitoring with particular care, and other appropriate steps are taken to control or mitigate the risk of connected lending (Basel, 1999).

Credit granting procedure and control

systems are necessary for the assessment of loan application, which then guarantees a bank's total loan portfolio as per the bank's overall integrity (Boyd, 1993). It is necessary to establish a proper credit risk environment, sound credit granting processes, appropriate credit administration, measurement, monitoring and control over credit risk, policy and strategies that clearly summarize the scope and allocation of bank credit facilities as well as the approach in which a credit portfolio is managed i.e. how loans are originated, appraised, supervised and collected, a basic element for effective credit risk management (Basel, 1999). Credit scoring procedures, assessment of negative events probabilities, and the consequent losses given these negative migrations or default events, are all important factors involved in credit risk management systems (Altman, Caouette, & Narayanan, 1998). Most studies have been inclined to focus on the problems of developing an effective method for the disposal of these bad debts, rather than for the provision of a regulatory and legal framework for their prevention and control (Campbell, 2007).

According to (Cuthberston & Nitzsche, 2003) risk management technology has been renovated over the last decade. The swiftness of information flow and the complexity of the international financial markets qualify banks to recognize, evaluate, manage and mitigate risk in a way that was just not possible ten years ago. The most current credit modelling software is in place with Basel II Accord. This accord has positively been a substance in leading the drive towards building applicable credit risk modelling and capital adequacy requirements. Banks will have to decide what their risk enthusiasm is, how to assign their resources optimally and how to compete in market. Generally in competitive market, a bank trade off the risk which allows much more competent risk transfer and

portfolio optimization. However, for all these activities, banks must have a good knowledge about risk management, pricing of loan on competitive market, marginal risk adjusted contribution, monitoring of economic capital (Cuthberston & Nitzsche, 2003).

TYPES OF CREDIT RISK ASSESSMENT

1. Classic Credit Risk Assessment
2. Credit Scoring System

1. Classic Credit Risk Assessment

Traditionally most banks have relied on subjective judgment to assess the credit risk of a corporate borrower. Essentially, bankers used information on various borrower characteristics – such as character (reputation), capital (leverage), capacity (volatility of earnings), conditions (purpose of the loan), and collateral – in deciding whether or not to make a given loan. These characteristics are commonly referred to as the 5 Cs. Developing this type of expert system is time-consuming and expensive. That is why, from time to time, banks have tried to clone their decision-making process. Even so, in the granting of credit to corporate customers, many banks continue to rely primarily on their traditional expert system for evaluating potential borrowers.

The basic components of a Classic Credit Risk Assessment– the “five C’s”

The “5 C’s of Credit” are the 5 key elements a borrower should have to obtain a loan. Regardless of where you seek funding - from a bank, a local development corporation or a relative - a prospective lender will review your creditworthiness.

A complete and thoroughly documented loan request (including a business plan) will help the lender understand you and your business. The “Five C’s” are the basic components of credit risk assessment. Each lender and

each loan will have slightly different requirements, but the 5 C’s are a good starting point.

1. Capacity
2. Capital
3. Collateral
4. Conditions
5. Character

1. Capacity to repay is the most critical of the five factors; it is the primary source of repayment – cash inflows that are generated by the company. What is your company’s borrowing history and track record of repayment? How much debt can your company handle? Will you be able to honor the obligation and repay the debt? There are numerous financial benchmarks such as a debt service coverage ratio that a lender will use before advancing funds.

The prospective lender will want to know exactly how the borrower intends to repay the loan. The lender will consider the cash flow from the business, the timing of the repayment, and the probability of successful repayment of the loan. Payment history on existing credit relationships (personal or commercial), is considered an indicator of future payment performance. Potential lenders will also want to know about other possible sources of repayment. Briefly, capacity to repay from the cash flow of the business, the timing of the repayment to match cash flow, and the probability of successful repayment, payment history on existing credit relationships is an indicator of future performance, contingent sources of repayment.

2. Capital is the money borrower personally has invested in the business and is an indication of how much the borrower has at risk if the business fails. Interested lenders and investors will expect you to have contributed from your own assets and to have undertaken personal financial risk to establish the business before asking them to commit any funding. Capital injection by owner

is often 30%. So, for example, if project costs are Rs.10,00,000, then the owner must have Rs.3,00,000 to contribute in cash or equivalent contribution.

3. Collateral, or guarantees, is additional forms of security which can be provided to the lender. Giving a lender collateral means that the borrower pledges an asset he own, such as his home, commercial real estate or equipment to the lender with the agreement that it will be the repayment source in case he is unable to repay the loan. A guarantee, on the other hand, is just that - someone else signs a guarantee document promising to repay the loan if the borrower himself is unable to repay. Some lenders may require such a guarantee in addition to collateral as security for a loan.

4. Conditions describe the intended purpose of the loan, the local economic climate and the conditions within the industry that may affect the borrower. Will the money be used for working capital, additional equipment or inventory? The lender will also consider local economic conditions and the overall climate, both within the borrower's industry and in other industries that could affect borrower's business. If this business in question is sensitive to economic downturns, a lender wants to know that whether borrower is good at managing productivity and expenses. If borrower is out of work and on the verge of losing his home to foreclosure, then it is not the time to borrow more money.

5. Character speaks to integrity. It is the general or subjective impression the customer makes on the prospective lender. The lender will form an opinion as to whether or not you are sufficiently trustworthy to repay the loan or generate a return on funds invested in your company. Your educational background, credit history, work and industry experience will be considered. The quality of your references and the

background and experience of your employees will also be reviewed. A FICO (Fair Isaac Corporation) score ("credit score") below 620 are most often deal killers.

2. Credit Scoring Systems

In recent decades, a number of objective, quantitative systems for scoring credits have been developed. In univariate (one variable) accounting-based credit-scoring systems, the credit analyst compares various key accounting ratios of potential borrowers with industry or group norms and trends in these variables.

Today, Standard & Poor's, Moody's, and Risk Management Association can all provide banks with industry ratios. The univariate approach enables an analyst starting an inquiry to determine whether a particular ratio for a potential borrower differs markedly from the norm for its industry. In reality, however, the unsatisfactory level of one ratio is frequently mitigated by the strength of some other measure. A firm, for example, may have a poor profitability ratio but an above-average liquidity ratio. One limitation of the univariate approach is the difficulty of making trade-offs between such weak and strong ratios. Of course, a good credit analyst can make these adjustments. However, some univariate measures – such as the specific industry group, public versus private company, and region – are categorical rather than ratio-level values. It is more difficult to make judgments about variables of this type.

Although univariate models are still in use today in many banks, most academics and an increasing number of practitioners seem to disapprove of ratio analysis as a means of assessing the performance of a business enterprise. Many respected theorists downgrade the arbitrary rules of thumb (such as company ratio comparisons) that are widely used by practitioners and

favor instead the application of more rigorous statistical techniques.

The importance of risk analysis in credit assessment

Effectiveness of Credit Management in the bank is highlighted by the quality of its loan portfolio. Every Bank is striving hard to ensure that its credit portfolio is healthy and that Non Performing Assets are kept at lowest possible level, as both of these factors have direct impact on its profitability. In the present scenario efficient project appraisal has assumed a great importance as it can check and prevent induction of weak accounts to our loan portfolio. All possible steps need to be taken to strengthen pre sanction appraisal as always "Prevention is better than Cure".

The nature of business and the competitive environment in which the borrower's company operates determine to a large extent the asset investment, financial decisions and profit dynamics of the company. Risk analysis is performed to understand the company's new investment avenues, market and competitive position, its strategy, and its effect on financing needs. The bank expects from the borrower regular payment of the principal and the interest on the money provided. The risk that the bank takes is that the company will not be able to pay back whole or parts of the total sum thus all the credit applications should thoroughly analyzed.

The following steps should be taken in this respect:

- **Identify the risks**

Define and document all the types of risks inherent in the company, management, product, industry and economy that could possibly affect the company's operations, and thus its ability to service its debt. This is done through information gathering -

the more relevant information, the better it is.

- **Evaluate the risks**
It should be evaluated how and to what extent the risks identified above, might affect the operations of the business. Generally the business risk regards the quality and efficiency of the assets, performance risk is determined through income statement analysis and financial risk is determined by how liabilities are funded by the assets. Management risk is determined by how well management controls the above three major risks.
- **Mitigate the risks**
After a thorough understanding of the risks has been made, it is in the bank's best interest that the risks are minimized or even fully mitigated. Once the interrelationship between all the risks has been defined, a balance must be found between the risks and return, which is done through the structure of the loan agreement, collateral, as well as appropriate covenants and a well-established pricing.

A complete analysis is the one that incorporates all available information regarding the company and industry in which it operates. It is extremely important to know your customer and a bank will enter a relationship with a customer only after it will obtain insight information about company's activity, financial position, plans for the future as well as details about experience of the management team.

The banks usually use the following sources of information:

- customer interview - it provides the most important information needed in credit investigation, including the type and the

amount of loan required, sources and plans for repayment, business plans and feasibility studies, collateral, previous and current creditors and structure of existing credit facilities, customers and suppliers details, information about management, shareholders, strategy and also relevant information about market and market share.

- internal sources - credit files on any current or previous borrowings, checking account activity, other previous or current deposits, internal reports on market/ industry/ players on the market etc.
- external sources - other banks that the client has connections with, Credit Information Bureau Database, Payment Incident Bureau Database, governmental organization, industry association, press releases, the electronic archive for real movables guarantees, court files information etc.

BASIC ELEMENTS OF CREDIT RISK ASSESSMENT

Before looking at the types of loans available from commercial banks, it is important to understand the perspective of the typical commercial loan officer when he or she analyzes a loan proposal. There is often a lot of confusion and resentment about the relationship between bankers and entrepreneurs. The entrepreneur's believes the banker does not understand and appreciate his or her business requirements, while the loan officer may have had bad experiences with entrepreneurs and thus the loan officer has had to foreclose on a default which emphasis the lender to a more restrictive policy. Banks are in the business of selling money and capital is the principal product in their inventory. Bankers, however, are often personally risk averse and have internal controls and regulatory restrictions affecting

their risk tolerance.

The bank's shareholders and board of directors expect loan officers to take all steps necessary to minimize the bank's risk in each transaction and obtain the maximum protection against defaults arising from this area. As a result, the types of loans available to growing companies, the terms and conditions, and the steps the bank takes to protect its interest all have a direct relationship to the proper assessment of risk in the credit to be given. The management team assigned to obtain debt financing from a commercial bank must embark on an immediate risk-mitigation and risk-management program to prepare for negotiating the loan documentation.

(I) Loan proposal characteristics

Although the exact elements of a loan package will vary depending on a company's size, industry, and stage of development, most lenders will want the following fundamental questions answered:

- a) Who is the customer?
- b) How much capital do they need and when?
- c) How will the capital be allocated and for what specific purposes?
- d) How will the borrower service the debt obligations (application and processing fees, interest, principal, or balloon payments)?
- e) What protection (collateral) can the borrower provide the bank in the event that he is unable to meet the agreed obligations?
- f) What are the key business matrices and how well are they measured, monitored and understood?

These questions are all designed to help the loan officer assess the risk factors in the proposed credit transaction. They are also designed to provide the loan officer with the information necessary to persuade the loan committee to approve the transaction. It must be understood that

the loan officer (once convinced of the company's creditworthiness) will serve as an advocate on clients' behalf in presenting the proposal to the bank's loan committee and shepherding it through the bank's internal processing procedures. The loan documentation, terms, rates, and covenants that the loan committee will specify as conditions to making the loan will be directly related to how the company can demonstrate its ability to mitigate and manage risk as described in the business plan from borrower's end and formal loan proposal from the lender's point of view.

The loan proposal should include the following categories of information, many of which might be included under the business plan as well:

1. Summary of the credit request:- An overview of the history of the company, business background, the nature of your business or start-up, the amount of capital needed, the proposed repayment terms, the intended use of the capital, and the collateral available to secure the loan. Also the proposed pricing is included under this section.
2. Borrower's history:- A brief background of the borrower company; its capital structure; its founders; its stage of development and plans for growth; a list of customers, suppliers, and service providers; management structure and philosophy; main products and services; and an overview of any intellectual property owned developed; group structure and support offered by the parent are also to be considered.
3. Market data:- An overview of trends in the industry; the size of the market; the market share of the company; an assessment of the competition; the sustainable competitive advantages; marketing, public relations, and

advertising strategies; market research studies; and relevant future trends in the industry as well as expectations for the future.

4. Financial information:- Multi-scenario financial statements (best case/ expected case/worst case), Sensitivity analysis, tax returns, company valuations or appraisals of key assets, current balance sheet, credit references, and the income statement. The role of the capital requested in the plans for growth, an allocation of the loan proceeds, and the ability to repay must be carefully explained. A projected cash-flow statement broken out in a monthly format for the whole lifetime of the loan must support a discussion over the ability to make the loan repayments on a timely basis. When presenting the collateral that might be available to support the loan request, it should not be assumed that the lender on a rupee-for-rupee basis would view the collateral.
5. Schedules and exhibits:- As part of the loan proposal, there should also be attached certain key documents, such as agreements with strategic vendors or customers, insurance policies, leases, and employment agreements. A picture of the products or site, and an organizational chart should also be appended as exhibits to the loan proposal.

(II) Structure of the credit risk assessment

Every bank has a specific format of the credit risk assessment, but they include most of the issues that will be further discussed. Generally, the assessment of the credit should include the following elements:

- A. Description of the Loan

(Purpose, Amount, Repayment Source, Terms, Security) - There are a number of types of loans available from a commercial bank, one or more of which could be tailored to meet specific requirements. Loans are usually categorized by the maturity of the loan, the expected use of proceeds, and the amount of money to be borrowed. The availability of various loans will depend on both the nature of the industry and the bank's assessment of company's creditworthiness.

- B. Description of the Company -The description of the company including the name, industry, description of the activity, the legal form, ownership, holding or mother-company, group structure should be made. It should also be mentioned the market share of the company, the products or services it provides and the major suppliers, major clients and major competitors. The suppliers and clients are very important for the analysis because if the company is dependent on its suppliers or clients, they should be analyzed too, as the failure of one means the failure of the company.
- C. Credit History -Any lender would want to know whether the client has paid past credit accounts on time. However, late payments are not an automatic reason for not granting the loan. At the same time, having no late payments in the credit report does not mean granting the loan.
- D. Analysis of the Market/Industry -The Bank should identify and evaluate the vulnerability of the company to external factors and its ability to protect against them. As the market is concerned, it should be analyzed:
 - Market structure (monopoly, oligopoly)

- Market size (number of participants, market share)
- The dimension of demand for the product (market assessment).

The most important issues related to the industry analysis are:

- a. Rate of industry growth
- b. Life cycle - it should be determined if it is a growth, mature or declining industry
- c. Industry development (strong, weak, old or new)
- d. Industry trends - it may be a seasonal or cyclical industry.

All the risks related to the industry should be identified. These risks may be: production risks, transportation risks, distribution risks.

E. Financial analysis of the borrower

A company's financial statements contain a series of relationships that are peculiar to a particular business, which can be described by analyzing individual components of each financial statement and by ratio analysis. They also reflect conditions in the industry and general economy and result from decisions taken by management in controlling the overall affairs of the company.

Financial analysis using business or financial ratios provides a mean of assessing a company's strengths and weaknesses. Using data from the balance sheet and income statement, various ratios can be computed which can then be compared directly to those of competing companies of varying sizes. Comparing the firm's operating results with those of specific competitors or the industry as a whole helps identifying the relative strengths and weaknesses. In addition, comparing changes in a firm's ratios over time can highlight improvements in performance or problem areas needing attention.

F. Cash flow and projected cash flow analysis

-Loans must be paid

back in cash, and the most direct way of evaluating a company's ability to generate sufficient cash to pay back the debts is Cash Flow and Projected Cash Flow. Cash Flow Statement is a very important tool for credit risk assessment. Cash Flow is essentially the movement of money into and out of the business; it's the cycle of cash inflows and cash outflows that determine the business' solvency.

G. Collateral Analysis-Collateral represents assets provided to secure an obligation. Traditionally, banks require corporate borrowers to commit company assets as security for loans. Under such arrangements, a party who owes an obligation to another party (borrower) posts collateral (to the bank) in order to secure the obligation. In the event that the party defaults on the obligation, the secured party seizes the collateral. Collateral is one of the main factors that influence the decision on crediting along with financial standing and effectiveness of the credit transaction and is the secondary source of loan reimbursement.

ANALYSIS OF CREDIT RISK MANAGEMENT PRACTICES

Overall CRM performance is at below the satisfactory level for both the public and private sector banks (See Arunkumar & Kotreshwar (2006)).

CRM Performance Index Public and Private sector banks

Sl. No.	Performance Evaluation	Performance Index (%)	
		Public Sector Banks	Private Sector Banks
1	Project appraisal procedures	48	49
2	Availability of comprehensive data	46	39
3	Risk based loan pricing	48	40
4	Deployment of information technology	46	57
5	Efficacy of internal credit rating system	54	50
6	Sharing experience with other lenders over problem loans	40	36
7	Practice of fine-tuning loan policies	55	46
8	Internal audit of CRM procedures	42	49
9	Bank credit standards	51	48
10	Credit decision: merit v/s extraneous considerations	60	46
11	Frequency of credit portfolio reviews	61	58
12	Renewal of borrowers limits	34	42
13	Periodical review of customer credit ratings	33	57
	Total	632	617
	Performance Index	49	47

- (1) More popular credit evaluation techniques like Altman's Z score model, J.P. Morgan credit matrix, Zeta analysis do not find a place in the credit evaluation tool kit of

the commercial banks in India. The Altman Z-score is based on five financial ratios that can be calculated from data found on a company's annual report. It uses profitability, leverage, liquidity, solvency and activity to predict whether a company has a high degree of probability of being insolvent.

CreditMetrics is the first readily available portfolio model for evaluating credit risk. The CreditMetrics approach enables a company to consolidate credit risk across its entire organization, and provides a statement of value-at-risk (VaR) due to credit caused by upgrades, downgrades, and defaults. Apart from above, there have been models that can help banks and financial institutions in predicting financial distress.

- (2) Employees are not given enough training to enhance their conceptual understanding of credit risk and improving their skills in handling it.
- (3) The leverage provided by information technology for efficient credit risk administration is not satisfactorily harnessed by commercial banks in India, particularly in public sector banks.
- (4) The availability of comprehensive data for credit evaluation is far from satisfactory in commercial banks in India.
- (5) Overall CRM performance of commercial banks in India as against the standard set out under New Basel Capital Accord is not satisfactory.
- (6) With CRM performance Index of 49 percent in public sector banks and 47 percent in private sector banks respectively, the performance of public sector banks is at par with the performance of private sector banks

CONCLUSION

Credit risk assessment is the quantitative and qualitative analysis of a company which helps to determine the company's debt service capacity, or how capable it is to pay back its principal payments to the bank or other creditors. Credit risk assessment is concerned with identifying, evaluating and mitigating those risks which may result in a company not being able to meet its creditors' claims.

Credit risk assessment involves the examination of the link between management performance or capacity and the working relationship of a company's assets, liabilities and equity as shown on its balance sheet, the result of its operations as reflected in its income statement and cash flow. The evaluation of the company's financial statements and the ratios that indicate the efficiency of the company's performance will thus provide an indicator of the probability of success of the ability to service its debt in the future.

Taking losses isn't simple—you need to unload the guarantee, you need to seize resources and you need to see that loss decimate your capital. This is only good if banks really perceive misfortunes. In the event that they proceed to imagine and broaden, all that this will do is to cause extraordinary expansion (as bank books will be enlarged with capital, and insufficient losses will have been taken and the circumstance proceeds). The banks need to predict losses quick and forcefully take remedial measures; otherwise, the ethical risk will build NPAs (Garg, 2019).

Thus, the major purpose of credit risk assessment is to identify risks in lending situations, draw conclusion regarding the likelihood of payment and make recommendations as to the proper type and structure of the loan in the light of the perceived financing needs and risks.

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THE BUDGET IN THE FINANCIAL MANAGEMENT OF THE SMES ASSISTED BY THE ADMINISTRATIVE PROCESS AS A COMPETITIVE TOOL

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ABSTRACT:

The life expectancy of micro, small and medium enterprises in Mexico according to official data is 6.9 years, a worrying fact considering that they generate more than 70% of the jobs in the country, thus having an important participation in their economy. This work has the purpose of making an analysis of strategies that contribute to its productivity and competitiveness, which positively impacts the life cycle of micro, small and medium enterprises. For this, the adoption of better administrative practices is proposed, such as; the implementation of operational and financial budgets linked to the administrative process as a means to ensure an efficient and reliable process. The above based on the field information collected in the present investigation.

Keywords: Competitiveness, SMEs, budget, administrative process and productivity.

INTRODUCTION

The SMEs worldwide represent a determining factor in economic activity and job creation. The General Secretary of the Organization for Cooperation and Economic Development, José Ángel Gurria (2018), said that between 50 and 60% of the aggregated value of the economies is provided by the small and medium enterprises (SMEs), considering also in the present study the micro companies, for the significant number of them. Normally in Mexico large companies are installed in development poles, derived from the communications infrastructure that favors them in terms of logistics. However, the SMEs are attending needs at local and regional level, contributing to employability and micro-financial development.

In Mexico it is not the exception, the economic contribution of the SMEs is transcendental, because according to the National Institute of Statistics and Geography, (INEGI), the National Institute of the Entrepreneur (INADEM) and the National Bank of Foreign Trade (BANCOMEXT), in the National Survey on Productivity and Competitiveness of Micro, Small and

Medium Enterprises (2015), 97.6% are microenterprises and concentrate 75.4% of the total employed personnel. It is followed by small companies, which are 2% and have 13.5% of the staff employed. Medians represent 0.4% of economic units and have just over 11% of jobs.

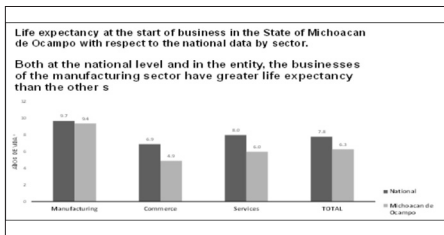
Because of the importance they represent for the national economy, it is necessary to look for strategies that contribute to their consolidation, mainly because of the short life expectancy of these organizations. According to data presented by the INEGI (2016), the average life of these organizations at a national level is 6.9 years, since they face various challenges. Among them those of an administrative nature, since these establishments are usually run by a person who makes all kinds of decisions, without counting in many cases with external advice, which affects the correct implementation of plans, the effective organization of processes, or the proper measurement of results. From the above, it originates as a strategy to deal with this problem, the implementation of budgets, as a management tool to improve productivity and competitiveness.

BACKGROUND

The budgets represent a control tool for the organizations, mainly in financial matters. They allow establishing the direction of the same ones and by means of their appropriate inspection they channel the established plans in monetary terms. According to Mendoza (2013), these are related to the capacity of strategy and execution, in small companies, the challenge is to overcome inexperience and draw up a plan that allows and facilitates growth.

It is precisely a requirement the search for alternatives for the growth of small and medium enterprises in Mexico, allowing in the first place its permanence in the market and greater contribution to the national economy. For purposes of delimiting the study, this research work focuses on these organizations in the city of Lázaro Cárdenas, Michoacán. The above is motivated by the information obtained from INEGI (2016), which states that the national life expectancy of businesses is 6.9 years, while for the state of Michoacán the average is 4.9 in the commerce sector, a worrying fact and that the search for solutions is urgent. Below is a graph of the mentioned results (Figure 1).

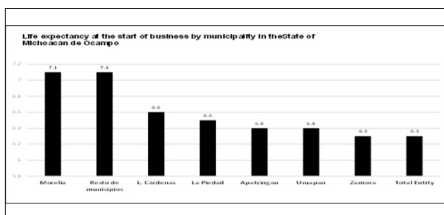
Figure 1: Life expectancy of businesses in the state of Michoacán



Source: National Institute of Statistics and Geography (2016).

In the City of Lázaro Cárdenas, according to the information of the INEGI (2016), there are 3,645 economic units that correspond to the retail trade sector, and 193 to wholesale, and in terms of manufacturing companies' total 731 establishments. The life expectancy in business is 6 years and 6 months, surpassing the figure presented at the state level. However, it is a few points below the figure determined at the national level. The above is presented in the following figure of results.

Figure 2: Life expectancy of businesses in the state of Michoacán



Source: National Institute of Statistics and Geography (2016).

The above data present an unfavorable scenario for these establishments, since their life cycle is relatively short, affecting the economic and employment contribution in the region and the one related to the payment of taxes, in terms of their tax participation. This requires the adoption of strategies to improve their competitiveness, which in turn contribute to their permanence as a going concern,

consolidating and achieving sustained growth. The administrative part is of vital importance, since it involves the coordination of resources whether material, human and financial, the latter being the lever to move the previous ones. Therefore, the present research work focuses on the establishment of budgets as a tool that develops its potential in a globalized market.

1. Approach and delimitation of the problem

This research is aimed at highlighting the scope of the SMEs in Mexico and specifically in Lázaro Cárdenas, Michoacán, the problems they face regarding their permanence in the market. This is how the proposal to establish budgets as a permanent plan that contributes to the achievement of organizational objectives, positively impacting their competitiveness and productivity, as well as a strategy to address the low level of life expectancy. From the previous approach the following question arises: Can budgets be adopted in the SMEs as a strategy that impacts their productivity and competitiveness?

A. Research objective

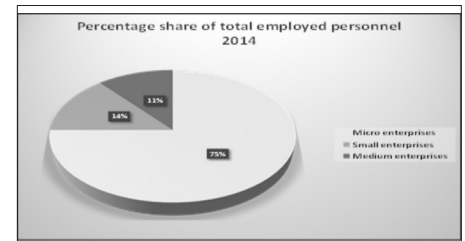
Examine and propose the formal implementation of the budgets for the SMEs, as a strategy to improve their productivity and competitiveness, also strengthening their life cycle.

2. Justification

As already mentioned, in Mexico the SMEs represent a very important sector in their economic development, because according to the information presented by INEGI (2015), regarding the National Survey on Productivity and Competitiveness of the Micro,

Small and Medium Enterprises of the Year 2014, a total of 4,048,543 companies, of which the micro constitute a 75% percentage share.

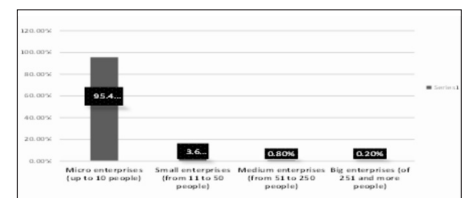
Figure 3: Percentage share of SMEs in employment



Source: National Institute of Statistics and Geography (2015).

The above if it is taken into account the total number of establishments in the country, of which 95.40% are micro businesses and only 0.20% are large companies, according to data from INEGI (2015).

Figure 4: Total establishments by sector



Source: National Institute of Statistics and Geography (2015).

Therefore, if strategies are sought that strengthen microenterprises, contributing to their growth and competitiveness, they will achieve their permanence in the market, and by representing the majority of the establishments in percentage terms, will allow them to consolidate as small and subsequently as medians, thus increasing their average lifespan, positively impacting on employment, the national and regional economy, without neglecting the tax collection that in any case would benefit naturally.

3. Theoretical foundations

A. Definition of competitiveness

Competitiveness in the present work is analyzed as a consequence derived from the adequate planning of budgets and their efficient application. It is therefore addressed in the business world, as a result of a strategy that improves its life cycle and strengthens productivity and competitiveness. Competitiveness is defined as the set of institutions, policies and factors that determine the level of productivity of a country. The level of productivity, in turn, establishes the level of prosperity that can be gained by an economy (Forum, 2014). Regional competitiveness can be defined as the administration of resources and capacities to steadily increase business productivity and the well-being of the region's population (Benzaquen, Del Carpio, Zegarra, & Valdivia, 2010).

Business competitiveness is derived from the competitive advantage that a company has through its production methods and organization (reflected in price and quality of the final product) in relation to those of its rivals in a specific market (Ibarra, González, & Demuner, 2017). Comparative advantage is driven by differences in the costs of inputs such as labor or capital. Competitive advantage, on the other hand, is driven by differences in the ability to transform these inputs into goods and services to obtain maximum utility (Romo & Abdel, 2005).

From the above definitions, the term competitiveness is considered from the national level, which reflects the productive capacity of a country, as well as the level of welfare of its citizens. Similarly, it is dealt with in a regional manner, considering as such the productivity that it is capable of generating, for the benefit of the population and a territorial margin. It also addresses the business environment, the objective of this

work, specifically SMES, considering as such the potential level in the market, as a result of the quality in their processes of transformation and organization. Finally, the difference in costs of inputs and labor is mentioned, however to be able to plan, measure and control them, it is necessary to budget them.

Competitiveness is considered the capacity of an entity with economic or social purposes, to fulfill its mission through the completion of its processes efficiently, identifying the needs of the client and through the use of technologies, maintaining a process of continuous improvement and innovation, for its own benefit, of its human capital, consumers and suppliers.

B. Definition of budget

The Budget is the systematically programmed estimate of the conditions and results to be obtained by a company in a given period. Formal estimation of income and expenses that will occur in a period. It is the essential device that allows a company to work financially in the best conditions, obtain the maximum benefit in easy periods and safeguard it in difficult periods (Martínez, 2007). The budget is a starting point that allows to appreciate what will happen in a given period, providing a broad view of the activities that will be developed throughout the year (Martínez O., 2012).

Budgets are a common accounting tool that companies use to implement a strategy. Management uses budgets to communicate the guidelines and goals to the entire company. Budgets drive managers' perspectives, and help in the planning and control of actions that managers must take to satisfy their clients and to succeed in the market. Budgets provide measures of the financial results that a company expects from its planned activities, and help define the objectives and chronologies against which progress is measured.

Thanks to budgets, managers learn to anticipate and avoid potential problems (Horngren, Datar, & Rajan, 2012).

In the review of the literature it is observed that the authors consulted in the present investigation, agree that the budget is a tool that anticipates the activities of an organization and the results, therefore it can be said that they represent an administrative tool that allows to glimpse the future of a company or organization, in a globalized environment, expressing its objectives aligned with its mission and vision, in monetary terms, likewise, through planning, coordination, direction and control, achieving desired and competitive results.

The budgets according to the literature examined, have a broad classification, according to the different authors, however, for the purposes of the present investigation, budgets are addressed from the operational and financial point of view. According to the field of applicability in the company, and taking into account in a simple way the needs of SMEs, the point of reference is taken as expressed by Díaz, Parra & López (2012), who group them as follows:

1. Operating or economic budgets. They are related to the operative part of the company, that is, operational income, non-operational income, costs (production, sales and services) and operational and non-operational expenses.
2. Financial budgets. They are related to the budget of the items in the balance sheet, mainly due to the treasury budget, which generates a large number of accounts.

C. Financial management

Financial management is the process of analyzing and making decisions about the financial needs of an entity, trying

to use the best financial resources, ensuring that they are sufficient for it to work, thus contributing to the fulfillment of the proposed objectives (Alvarez, 2017, pp. 338-358). Financial Management is the activity carried out in an organization that is responsible for planning, organizing, directing, controlling, monitoring and coordinating all the management of financial resources in order to generate greater benefits and / or results. The objective is to make the organization develop effectively, support the best financial decision making and generate investment opportunities for the organization (Terrazas, 2009, pp. 55-72).

Basically, financial management encompasses everything related to money, investment, administration and ownership, so that it is properly managed' and is lucrative; therefore, its objective is focused on maximizing the value of the investment of the owners of the company (Nava & Marbelis, 2009, pp. 606-628).

The aforementioned authors agree that financial management optimizes resources for the benefit of the organization and the achievement of established objectives. From the above it is concluded that it is the activity aimed at obtaining, managing and applying resources in an efficient and effective manner, with the purpose of ensuring the usual development of economic operations necessary for the achievement of the mission and business vision, also ensuring the planned results.

D. SMEs

According to data from the National Institute of Statistics and Geography (2009), the MSMEs represent, on a global level, the segment of the economy that provides the greatest number of economic units and employed personnel; Hence, the importance of this type of companies and the need

to strengthen their performance, as these influence fundamentally on the global behavior of national economies. In accordance with the Ministry of Economy (2010), microenterprises are all those businesses that have less than 10 workers, generate annual sales of up to 4 million pesos and represent 95 percent of the total of companies and 40 percent of the total employment in the country; In addition, they produce 15 percent of the Gross Domestic Product.

The small company is an independent entity, created to be profitable, that does not predominate in the industry to which it belongs, whose annual sale in values does not exceed a certain limit and the number of people that make up does not exceed a certain limit, and like any company, it has aspirations, realizations, material goods and technical and financial capacities, all of which allow it to dedicate itself to the production, transformation and / or rendering of services to satisfy certain needs and wishes existing in society (Thompson, 2007).

Considering the information of the Ministry of economy, (2010), medium-sized businesses are businesses dedicated to trade that have from 31 to 100 workers and generate annual sales that range from 100 million and can exceed up to 250 million pesos. For greater clarity regarding the segmentation of the SMES, considering the employed workers and the income received, in the Official Gazette of the Federation, of June 30, 2009, the stratification was published according to the following table:

Table 1: Micro, small and medium company stratification

Size	Sector	Rank of number of workers	Annual sales amount range (mdp)	maximum combined stop
Micro	All	Until 10	Hasta \$4	4.6
Small	Commerce	From 11 to 30	From \$4.01 to \$100	93
	Industry and services	From 11 to 50	From \$4.01 to \$100	95
Medium	Commerce	From 31 to 100	From \$100.01 to \$250	235
	Services	From 51 to 100	From \$100.01 to \$250	250

* *Maximum Combined top* = (Workers) X 10% + (Annual Sales) X 90%.

Source: Official Gazette of the Federation (2009).

A. Administrative process

The administrative process is a means of integrating different activities to implement the business strategy, after defining the business objectives and formulating the strategy that the company intends to develop, analyzing the environment surrounding the company, the task to be performed and the technology which will be used, as well as the people involved. The business action that will implement the selected strategy must be managed (Chiavenato, 2001).

The administrative process is a fundamental methodology for the application of the administration, regardless of whether it is part of the administrative process school, it is an indispensable tool around which other administrative schools or approaches can be applied. Its importance is similar to that of basic arithmetic operations; without these it is not possible to perform other mathematical operations. Likewise, the stages of the administrative process are basic to apply any style or school of administration (Munch, 2007). The functions of managers provide a useful structure for organizing administrative knowledge. No new ideas, research findings or techniques have been presented that cannot be easily placed in the classifications of planning, organizing, staff integration, directing and controlling (Koontz, Weihrich, & Cannice, 2008).

The administrative process in relation to the budget is an essential element that comes to strengthen from the integration process, its administration and application of the same, contributing in an efficient way in its consolidation. The established plans

require a mechanism to ensure their efficient and effective development, meeting established goals, controlling deviations at the appropriate time, as mentioned in its definition (Munch 2007), its importance is similar to that of basic operations.

E. Productivity

Currently referring to productivity is alluded to different factors that intervene and determine it, such as; financial resources, the quality of products or services, the use of technologies, human capital, machinery and equipment and administrative accounting, elements that when applied efficiently in the respective processes, contribute directly to the results of the organization. With the above, it is clear that it is not the volume of production itself, rather the ability to meet the needs of customers or the market, through the efficient gearing of the resources available to the organization.

Productivity is the ability to achieve objectives and generate high quality responses with the least human, physical and financial effort, for the benefit of all, by allowing people to develop their potential and get a better level of quality of life in return (Fernández, 2010). Productivity is a strategic objective of companies, because without it the products or services do not reach the levels of competitiveness needed in the globalized world (Medina, 2010). Productivity is a relative indicator that measures the capacity of a productive factor, or several, to create certain goods, so by increasing it, better results are achieved, considering the resources used to generate them. The importance of productivity lies in the use as an indicator to measure the real situation of a country's economy, an industry or business management (Miranda & Toirac, 2010).

The previously stated definitions of productivity are directly associated with the results. However, it is important to

consider other factors that intervene in their achievement. Considering the above, it can be defined as the ability to generate goods and services that meet the needs of customers, by efficiently gearing the resources of the organization and the administrative process as a regulatory element, meeting their institutional objectives, developing competitiveness and favorable results.

4. Methodology

In the present research work, the methodology used is based on an empirical approach with qualitative analysis, based on electronic, literary and scientific sources, as well as government statistical information, obtaining in this way the data considered useful for this study, by its degree of contribution to the problem to be solved, it is considered a descriptive study because it provides useful information to the SMEs. It seeks to specify properties, characteristics and important features of any phenomenon that is analyzed. Describe trends of a group or population (Hernández, Fernández, & Baptista, 2014, page 92).

To give greater certainty to the findings of this investigation, a survey was applied to 30 establishments in the city of Lázaro Cárdenas, Michoacán, to know if the SMEs elaborate budgets as part of their administrative activity. The validation of the instrument for collecting this information, processed using the Likert scale as a reference for its elaboration, without considering all its elements, composed of 5 questions, was carried out using the statistical package IBM SPSS Statistics, version 25, determining reliability through the coefficient alpha of Cronbach, throwing a degree of reliability of .812 on 5 elements that integrated it.

5. Analysis of results

Mexican companies need to start using financial tools that allow them to know where they are currently, where they want to go and in what way they

are going to achieve it. One of those tools is the budget, since there is no worse scenario in any activity and more in the economic dynamics of business than uncertainty (Gutierrez & Frausto, 2016). According to the results of the survey applied to the SMEs establishments, mentioned in the part of the methodology of this research, the need to implement budgets as a tool to improve productivity and competitiveness is reaffirmed, considering the following:

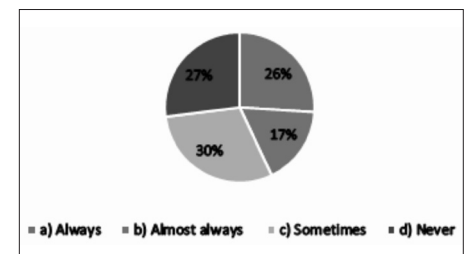
1. Are your budgets prepared annually in your company?

Table 2: Results of question 1

Answers	Amount
Always	8
Almost always	5
Sometimes	9
Never	8

Source: Own elaboration

Figure 5: SMEs that elaborate budgets



Source: Own elaboration

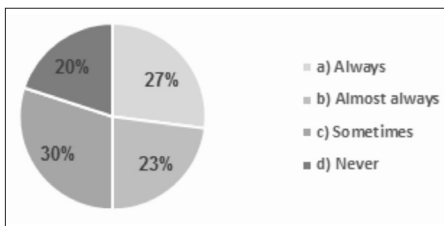
In the previous figure, it is observed that 26% of the establishments surveyed, always elaborate budgets, sometimes 30% and never 27%, which shows that there is a degree of improvisation. Therefore, uncertainty in their results, so previous they do not have cleared the course to which they are directed. Those who permanently perform them represent an extremely low proportion.

2. Is your income planned in advance and is compliance monitored?

Table 3: Results of question 2

Answers	Amount
Always	8
Almost always	7
Sometimes	9
Never	6

Source: Own elaboration

Figure 6: SMEs who plan

Source: Own elaboration

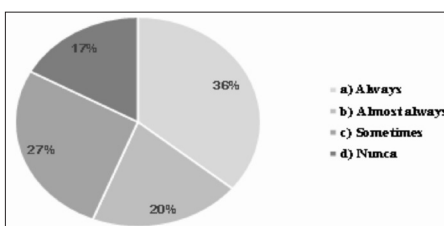
27% of the establishments consulted always plan their income, 20% never and 30% sometimes, observing a correspondence with the previous question, especially in this response, confirming the lack of budgetary culture as an administrative control tool, that makes evident the financial problems that propitiate the disappearance of a large number of them.

- Are your costs and expenses planned in advance and is compliance monitored?

Table 4: Results of question 3

Answers	Amount
Always	11
Almost always	6
Sometimes	8
Never	5

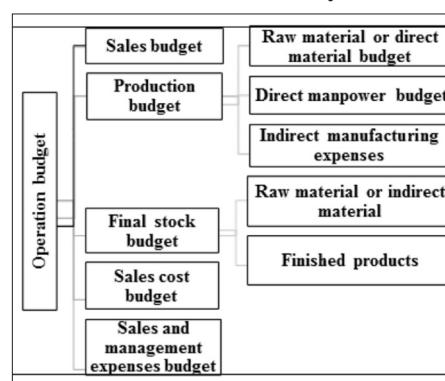
Source: Own elaboration

Figure 7: SMEs that plan their costs and expenses

Source: Own elaboration

As for the planning of costs and expenses, 17% never does, 27% sometimes, 36% always and 20% almost always. The lack of proper handling of cash outflows generates non-payment of payments to suppliers, payroll, taxes and other expenses, affecting the results. Likewise, in the absence of an orderly predetermination, it is not possible to establish continuous improvement programs in these areas, tending to the optimization and standardization of the same.

With the above, the proposal regarding the implementation of the basic budgets for SMEs is strengthened as a strategy to improve productivity and competitiveness, through a simple process that facilitates their understanding, considering that these organizations do not have a departmental distribution, being only one person in most cases who performs the administrative operations, however, having the necessary and timely accounting information, as well as the advice of the public accountant, as an external consultant, may carry out its preparation, mainly in the financial statements. For this purpose, the integration of operating and financial budgets is suggested in the following order:

Figure 8: Operating budgets for an industrial activity

Source: Own elaboration

As previously mentioned, for this study, the budgets are dealt with in two

categories. First of all, the operating budgets, as represented in the previous figure and which have the following order, which is explained in a simple manner to facilitate their understanding to those responsible for administering or managing a SME, based on the bibliographic sources consulted:

- 1) Sales budget. As Tamer & Guerra (2010) describes it in a simple way, it is integrated by the estimated sales quantity and is determined through the sales forecast, once an analysis of the possible future demand of the market is made, the result by the unit sale price.
- 2) Production budget. They are commonly expressed in physical units. The information needed to prepare this budget includes types and capacities of machines, economic quantities to produce and availability of materials (Mendoza, 2013).
- The industrial SMEs to integrate their production budget, should formulate the following budgets:
- 3) Budget of raw materials or materials to be used, quantifying physically according to their unit of measurement and in monetary terms in order to determine the value of the purchases to be made.
- 4) Budget of direct labor. According to the production, the number of workers, in their case the salaries to pay, through the established system, to quantify the cost of the payroll of the workers or workers who intervene directly in the production process.
- 5) Budget of manufacturing overhead. They are related to each of the expenses that indirectly are part of the production, such as depreciation of machinery, indirect labor, fuel, electric power, maintenance of equipment, that is, those expenses that originate in the productive process and that

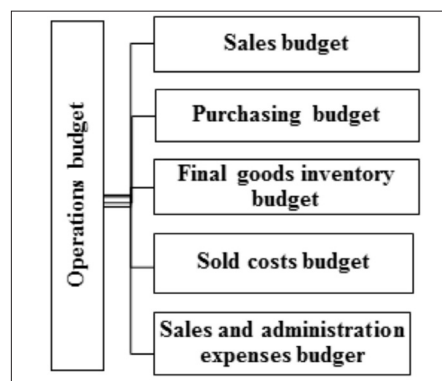
are not physically identified in the unit produced, but that are produced and through proration applied to the process. For this, it is important to identify and quantify them.

- 6) Budget of final inventories. The established policies must be taken into account regarding the stocks that are to be maintained at the end of each period, both raw materials or direct materials, as well as finished articles, which will form the final inventories. They can be integrated into a single document.
- 7) Cost of sales budget. It presents a complete overview of the entire budget process described to this point, starting with the raw materials, following through the elaboration of the same and concluding in the warehouse of finished products. That is, it is a budget that allows a general appreciation of the fable activity in terms of monetary units (Rivadeneira, 2014). It involves the initial and final inventories, both raw materials and finished production, the production cost as a result of the sum of direct materials plus direct labor and indirect manufacturing costs.
- 8) Budget for sales and administration expenses.
 - a) Selling expenses are constituted as mentioned by Rivadeneira (2014), by the set of disbursements, depreciations, amortizations and applications related to the storage, dispatch and delivery of the goods produced by the company; the promotion and propaganda expenses and the expenses of the sales department and its personnel. In other words, all those expenses related to the activity of selling.
 - b) Administrative expenses mention the author cited

in the previous paragraph; which are constituted by the set of disbursements, depreciations, amortizations and applications related to the management and direction of the general operations of a company. They usually include the functions of management, auditing, accounting, credit and collections and general offices. In the case of SMEs, they are those related to the activity of directing and administering.

- c) For SMEs whose activity is commercial, the elaboration of their budgets is simpler, because instead of production budgets, they only elaborate purchases of merchandise, likewise the final desired inventory of the same ones. In the determination of the cost of what is sold in the same way, its elaboration will be easier. In the following figure it is shown graphically in figure 9.

Figure 9: Operating budgets for a commercial activity

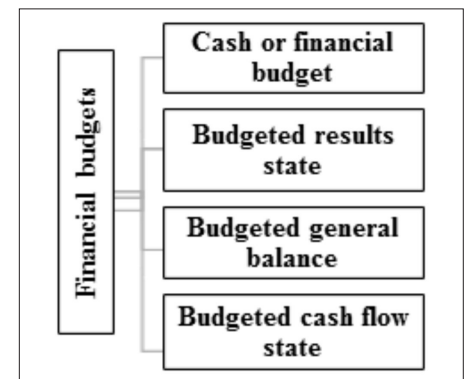


Source: Own elaboration

The financial budgets that correspond to the second category mentioned in this work, necessarily require the advice of the head of the accounting process, which is usually an external professional, the public accountant and are the same for a SMEs that performs

industrial activities or commercial. Next it is shown in figure number 10, how they are integrated.

Figure 10: Financial budgets



Source: Own elaboration

The financial budget, according to Horngren et al. (2012), is that part of the master budget formed from the budget of capital expenditures, the cash budget, the budgeted balance sheet and the statement of budgeted cash flows. A financial budget focuses attention on the way in which planned operations and capital expenditures affect cash. Below is a brief explanation of each one.

- 1) Cash budget. Considering the structure presented by the different authors consulted, it is possible to verify the importance of the information presented, from the available resources, its application, in its case the lack thereof, to look for the possible sources of financing with all opportunity, in its case adjustment of credit and collection policies, optimization of resources among others.
- 2) Budgeted income statement. Once the cash budget has been drawn up, the effect of the financing derived from the payment of interest for contracted loans is known, therefore, there is enough information to make this projected financial statement, since there is also

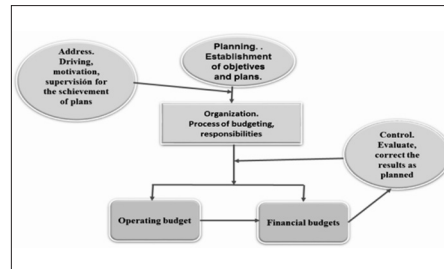
data on income, cost of sale and sales and administration expenses determined in the first category operating budgets. This accounting document presents the form in which the profit will be obtained or in its case the loss of the period to which the projections correspond.

- 3) Budgeted general balance. This projected accounting document reflects information related to goods, rights and obligations, among the most relevant with respect to budgeted data, accounts receivable and payable, inventories, profit determined in the income statement, credit debts, taxes to pay, utilities to distribute to workers, information generated in the previous budgets and that finally concentrates this financial statement.
- 4) State of budgeted cash flow. The efficient use of cash is one of the purposes of this accounting document. It shows the resources and their application, which allows making decisions in a timely manner when knowing the balance at the end of the period, which at a certain moment may represent a risk to make against immediate obligations or an excess in your case that merits planning your investment or appropriate use.

With the development of the aforementioned budgets, the SMEs will have tools that will allow them to visualize the needs in terms of income generation, production, expenses for purchases, salaries and salaries and other operating expenses, even to project the profit to be generated, or in its case the desired one, giving certainty to the business development, having clear where it is going financially. However, as previously stated, the elaboration of budgets requires mechanisms that ensure their efficient

and effective application, proposing the administrative process for their strengthening, as described below in graphic form.

Figure 11: Budget preparation process assisted by the administrative process



Source: Own elaboration

When preparing the budget through the application of the administrative process, it is possible to adequately define the objectives of the SMES, determine who, when and how each action will be carried out, who will be responsible for directing each stage of their integration, in the same way timely execution in the evaluation of the results, which is part of the control phase, with the purpose of verifying that the goals consigned in the budgets are being carried out according to the plans, in case of presenting deviations, analyzing and determining their causes for apply the corrective measures that are necessary.

CONCLUSION

The information consulted in the different sources that make up this work, first confirm the importance of the SMEs in the national economy, likewise show their low average life, as well as an uncertain future for many of them, mainly because they do not have an effective planning, that allows to know its objectives in a clear and precise way, to have budgets that serve as a guide in the development of its economic activity, that favor the obtaining of better financial results, likewise the information obtained through an applied survey, reveals the

need of better administrative practices that contribute to their productivity and competitiveness.

In this sense, the present investigation concludes with the proposal of implementing the operating and financial budgets for the industrial and commercial SMEs, being a strategy aimed at improving their productivity and competitiveness, for this their process is exposed graphically from figure number 8, indicating an order for effect of its elaboration, followed by a brief explanation of the different concepts that integrate them, by means of a simple language for its better appreciation. Regarding the part related to the financial budgets, the intervention of the person responsible for the generation of the accounting information is necessary.

One of the most important findings of this research is the need to combine the process of preparation, administration and application of budgets, with the administrative process, because alone, its effective compliance is not assured, mainly due to the need to establish with precision the goals, how and when they will be carried out in a timely manner, who will direct the actions, finally how compliance will be monitored according to the established, verifying that there are no deviations, correct them where appropriate and evaluate the results.

With the above and according to the characteristics of the SMEs, among others, as mentioned that they are family businesses and who directs them does not have the preparation and updating in the administrative field, an area of opportunity for governmental organizations, employer groups and chambers of the different branches of the activity, direct training and assistance processes, mainly addressing basic aspects of the administrative process and the advantages of adopting best practices in their businesses, such

as the implementation of budgets, to achieve better productivity and competitiveness.

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