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# EIS

**Dr. Subodh Kesharwani**

Editor-In-Chief



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The mandate behind KARAMS is to make certain transparency, accountability and adherence to corporate governance norms. Recently KARAM Society had put its ware bouts in an online publishing and collaborated with Open Magazine Inc. and Publishes two hard core empirical research magazine on information systems ([www.gjeis.org](http://www.gjeis.org)) and in medical science ([www.agems.in](http://www.agems.in)). Both the Research magazines are now available in a Brick-&-Mortar mode also with an ISSN and eISSN Numbers respectively. The rationale of the KARAM Society is to promote empowerment and inclusive development with an emphasis on social, digital and financial inclusion; strengthening of delivery systems and participatory democracy for bringing about a systemic change to help meet development objectives better. During the past two decades founder members of KARAM Society have travelled transversely the country to learn critique and encourage social, digital, medical and financial inclusion. In the process, knowledge repositories have been created on what works-the most excellent practices-actively engaging all stakeholders from policy makers and civil society to ordinary citizens. The KARAM will allocate this knowledge for progression and nation-building all the way through e-learning modules and virtual platform for practitioners and publishing video documentaries on our portals. Recently it had started new portal <http://open-journal.com> which is backed by the gamut of great academicians from different part of the world.

In the last few years KARAM Society conducted numerous health camps in a charitable mode in various districts of Haryana, Rajasthan, Uttar Pradesh, New Delhi, etc. which are organized with support from corporate, civic bodies, the government, NGOs and individual volunteers. KARAMS has conducted over 75 general health camps till date and has benefitted more than 25,000 people directly. In line with the policy to provide healthcare services to the community around our facilities, KARAM Society has started a Mobile Medical launched Mobile Medicare Unit (MMU hereafter) to address the health concerns of older persons living in urban slums. Technical aids are provided to the poor elderly that could improve their quality of life and make them independent. Eye camps are organized every year now and then to screen beneficiaries for cataract. Awareness about diseases and healthy living is an important component and constant effort by KARAM Society is being made in this direction. The team of KARAM SOCIETY India consists of a medical doctor, a community health mobilizer, a pharmacist and a social protection officer. The team will not only provide curative medical services but will also raise public awareness on preventive and promotive aspects through awareness generation and multidisciplinary medical camps, etc.

KARAM Society best practices have been documented as information cards, video case studies, policy and white papers that are consistently shared with group of people at great, so that it can become a wider learning process. Having done all the above driven by individual enthusiasm and excitement, the members now felt the need to create an institutional Metwork that not only takes this work forward and emerges as a key expansion institution but also helps in facilitating implementation mechanisms such that the benefits of wide-ranging development are actually received by society.

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### EIS Impact in Digital Entrepreneurship



**Subodh Kesharwani**  
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Technology has facilitated a new age of entrepreneurship as entrepreneurs find digital paraphernalia that put together easy new ventures to accumulate use of commercial opportunities around the human race. This particular issue volume-10 Issue-3 July-Sep, 2018 provides readers how EIS facilitates using technology platforms to establish new venture. Digital entrepreneurship is by and large creating new ventures and transforming existing businesses by developing novel digital technologies and/or novel handling of such technologies.

In terms of edification, digital entrepreneurship opens new potential to instruct the consequently legion of entrepreneurs. The best technique to enlarge acquaintance of entrepreneurship is to 'accomplish it', and reproduce on that occurrence. Starting a new business or launching a new product, in the customary world is well-appointed and death-defying for beginners. The digital world not just lowers the blockade for starting something innovative, but offers a multiplicity of pathways to success. It's just a miscellaneous world educationally from case studies, simulations, and business plans.

Digital Entrepreneurship can be classified as embracing "new ventures and the alteration of existing business by creating and using novel digital technologies. Digital Enterprises are characterized by an elevated potency of utilisation of new digital technologies (chiefly societal, movable, analytics and cloud solutions) to step forward business operations, formulate new-fangled (digital) business models, pulverize business aptitude, and tie with customers and stakeholders through new (digital) channels". Digital entrepreneurship is an appearance that describes how entrepreneurship will revolutionize, as business and society lengthen to be transformed by digital technology. Digital entrepreneurship highlights changes in entrepreneurial practice, theory, and education. Beyond learning new sensible skills, digital entrepreneurship is also about new ways of thinking about entrepreneurship itself—which is another way of saying it offers new theories of entrepreneurship. Digital entrepreneurship opens up new questions about policy, circumstance, and jeopardy. Does the most admirable data win? How can I legerdemain a business thought that can be prototyped digitally? How can I step forward my business idea faster than anyone as fighting fit? How can I without complicatedness fastening between different business ideas, and revenue sources? What does it indicate to be an universal business from the first day? And why do community from around the world stay behind trying to smash into my trade?

Digital start-ups and scale-ups tend to be fashioned and get bigger in clear-cut urban environments, leveraged by what David Isenberg (2011) defined as start-up and scale ecosystems enlargement for entrepreneurship, where policies, finance, culture, supports, human capital and markets play an essential role. This journal at hand issue aims to travel around the "technological change and social collision" on "how digital start-ups and scale-ups are changing and will lengthen changing the technological, economic and social backdrop" focus on understanding this socio-economic and technological incidence and put in to investigational and pretend relationship by providing new theories, frameworks and models to cultivate their expansion. We acknowledge the intricacy and affluence of the 'Digital Entrepreneurship' topic, and want to be thankful for the occurrence methodically from dissimilar angles and perspectives, as the nature of entrepreneurship dictates as an interdisciplinary and multidisciplinary domain. The exact description of digital entrepreneurship is still being argue, partially for the reason that it's early days, and partly as it's a poignant objective. As digital technology evolves, what is up-to-the-minute about digital entrepreneurship will change over occasion. Perhaps one day, most or all entrepreneurial ventures will be 'born digital', and digital entrepreneurship as a detach subject will close down to subsist. at the moment, on the other hand, there's a real necessitate to better set up entrepreneurs for the digital world, and to furnish more people a new path to entrepreneurship. If you want to find out more about digital entrepreneurship, you're at the right position.

## 10 Year Plus Journey about GJEIS: From 2009-2019

GJEIS which was formulated in the year 2009 is one of the peer review referred journal which had been sustained from this tempest. We want to share a very out of the ordinary festivity: the first 10 years of GJEiS with your shore up we had accredited from you and from many other colleagues from all over the sphere, this sparkle would not have draw closer exclusive of the contributors support and backing. This volume is signpost in plentiful ways. First, it scripts the establishment of our 10<sup>th</sup> year of publication, in which we have foretaste how GJEiS had full-fledged from underside to apex. Second, we are about to go on board into our first new decade, under the banner of our new publisher, Scholastic Seed Inc. ([www.scholasticseed.in](http://www.scholasticseed.in)). Scholastic Seed Inc. originated as a think-tank and an Out-of-Box service contributor of periodicals online platform apparatus and had urbanized digital state-of-art periodicals software exclusively for the magazines, scholarly journals, newspapers, annual reports and newsletters. In the present state of affairs these publications are available at usual intervals and required lots of digitization and contemporary thought to burgeon online..

I would like in person thank KARAM Society for having the vision to back our young periodical and see it through to adolescence. I've been providential to plug away with some splendid population, who helped an inexperienced editor, as we urbanized a bulletin with a very divergent gaze and undergo to most others in the geography. As we go into the next segment of our escalation, I'm looking forward to working with Scholastic Seed Inc. originated a E-publishing Aggregator & Periodical Mentor [www.gjeis.com](http://www.gjeis.com) , a pioneer in library management and innovative corporation, which is rapidly expanding in the area of periodical. The vertebrae of any journal is its editorial board as which not only endorse the journal but reinforce in making more strapping editorial boards in many ways. Perhaps the most widespread gathering of the board is to endow with high-quality reviews for articles where you may be besieged to find tangential reviewers. Board members can also perform as a third, or trusted "tie-breaker" reviewer on articles where you have received split opinions from the other referees. We had fashioned a new pedagogy from 2019 to reinforce and bring lucidity. The below box mentioned give the clear understanding of a review process the journal follow across all the article published in particular issue volume after volume, the extract of the reviewer's and editorial comment is enclosed jus for the knowledge to the reader how we exactly go through and tackle article. From forthcoming issue we had make our mind to add a blind reviewers comment at the end of an article without disclosing the identity, so that more curious debate in academia would reach to unreached which by and large facilitates a grass root researcher about the reviewer process.

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**Editorial Comment Column:** This particular column can furnish an elaborative view on the paper the day it had been submitted and DOI generated at that juncture to give full transparency. If the paper published in due course the same DOI converted into a 5 digit code and mentioned at the right side of cover page and in a Paper code head too, otherwise will scrap the code in order to avoid misconduct. The purpose behind to give a full clearness to the authors. For more detail about the DOI one can visit <https://www.doi.org>. Editorial board are in suitable passageway answerable for the supremacy of the critique and cautious for recognize noteworthy 'worth mentioning topics', sourcing high quality manuscripts, handling schedule paperwork, and organizing the flow of manuscripts (*i.e. from author to referees and back in a camera ready shape*).

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The editorial board (sometimes known as an advisory board) typically consists of a group of prominent people in the journal's field. Having an editorial board is very significant: they act as ambassadors for journals. To some extent the quality of a journal is judged by the members and scholastic credentials of its editorial board. Aside from providing prestige, the role of the editorial board is to advise and support the editor. Functions may include:

- *Identifying new topics for commissions, special editions and advising on direction for the journal—giving feedback on past issues and making suggestions for both subject matter and potential authors*
- *Provide content by writing occasional editorials and other short articles*



- *Approaching potential contributors*
- *Peer review; also help to identify peer reviewers and provide second opinions on papers (i.e. where there is a conflict between reviewers)*
- *Identify appropriate conferences for editors to attend*
- *Endorse the journal to authors, readers and subscribers and encourage colleagues to submit their best work.*

In inspection of the precision that it has started its publication has contemplate on issues concerning science, management, engineering and technology in various leading circumference areas of research, development and its connotation. Since GJEIS which addressed as an academic journals are not sustain economically by institution but supported by KARAM Society a Research and Academic Management conglomerate and professional organizations, who in the backdrop plot a route. On the other hand, from 2018 we are planning to admit promotion, page and image charges from authors to compensate the production costs occurred, but some flexibility and waiver would be set to astonishing research articles which had an empirical resonance. GJEIS with an academic permission are twisted by commercial publishers who do not make a profit by charging subscriptions to individuals and libraries and tender free articles from their portal [www.gjeis.com](http://www.gjeis.com)



The GJEIS as a scholastic journal facilitates debonair with its research initiatives and meticulous blind and peer review process the journal is currently at present listed in almost fifty directories in the globe, equipped with Digital Object Identifier (DOI) from Cross-ref USA <http://www.crossref.org>. It also had an average impact factor of 2.31 from the various impact factors rating agencies. Recently as per the Google scholar it h-index is 94 and i-10 index is 921 from 2009-2018. From 2019 onwards as per the instruction given by the international listing agencies which provide ratings to the journal, we had stated putting a similarity index at the end of an article to give more transparency and creditability

Hope that this kind of initiatives can definitely give journal an edge and create a niche. The journal with its Present Volume-10 Issue-II Apr-June 2019 had a mandate of a Journal is to popularize the thought of Enterprise, Information and System in business and remote business. It is designed to make graspable to community that harmonization of three words is not just a economic idea, but is more omnipresent, that is why we have to get transversely what the academics and the peers are doing and saying about scientific showground in creating a recess. We have fabricated an across-the-board cluster to make GJEIS genuineness.

We had moreover at the present made the Subscription based access. On the other hand the dedicated page in Face book created in order to fiddle with the GJEIS alliance <https://www.facebook.com/GJEiS>. The GJEIS website has been moving to a new contemporary Google-hosted JavaScript service which label the length of population curate online directory, helps in indexing and smooth the development of in providing access to peer-reviewed articles. It is also equipped with search engine optimization and web analytics for statistical analysis and citation. GJEIS is also been placed at UGC Approved List of Journals at S. No. 27981 <https://www.ugc.ac.in/journalist>

To commemorate this anniversary we want to publish a Special Issue that collects your impressions in the form of review, original article, letter to the editor, opinion or perspective article, etc., which include a paragraph with congratulation to GJEiS's 10<sup>th</sup> Anniversary or a personal reflection on *what has GJEiS influenced in my work as a researcher? Why do I like to publish in GJEiS? Or what do I think GJEiS has contributed to the field?* I on behalf of GJEiS grab this opening to eloquent indulgence to the complete personnel of KARAM Society and community from Scholastic Seed Inc. for their enthusiasm and relish in bringing out this fast-moving volume/issue. To make journal a benchmark from 2019 we are creating a new team with more contemporary thought and strengthening the peer review process. I would in tot up be affectionate of to authenticate confirmatory feedback to our society staff at the periodical office, for their well judged and meticulous effort.



**Dr. Subodh Kesharwani**  
Editor-in-Chief, GJEiS  
Three Year Notified Tenure 2018-2020

## Enterprise Risk Management in it and its Governance: A Pragmatic Analysis for Operational Efficiency in Banking

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### EDITORIAL BOARD EXCERPT

Initially at the Time of Submission (ToS) submitted paper had a 36% plagiarism and after rectification it was reduced to 02%, which is an accepted percentage for publication. The editorial board is of an observation that paper had a successive close watch by the blind reviewer's which at a later stages had been rectified and amended by an authors (Gajapathy & balanagaraja) in various phases as and when required to do so. The reviewer's had in a preliminary stages remark with minor revision with a following statement which at a short span restructured by the authors. The comments related to this manuscript are tremendously noticeable related to **Enterprise Risk Management in it and its Governance** both subject-wise and research wise by the reviewers during evaluation and further at blind review process too. The authors have crafted the paper in a structured manner. The introduction gives a clearer perspective on the conceptual foundations about integrated risk management and governance in IT in banking operations without compromising the operational efficiency. The need is to have more in-depth analysis on the topic in the current scenario. Empirical investigation would have been added to authenticate the secondary literature. Overall the paper promises to open newer facets of studies. All the comments had been shared at a variety of dates by the authors' in due course of time and same had been integrated by the author in calculation. By and large all the editorial and reviewer's comments had been incorporated in paper at the end and further the manuscript had been earmarked and decided under "Empirical Research Paper" category as its highlights and emphasize the work in relation to Enterprise Risk Management in it and its Governance: A pragmatic Analysis for Operational Efficiency in Banking

**ABSTRACT** Operational efficiency is the most vulnerable in banking sector. A lax operational management impairs the efficiency and finally it impacts the belief of the Indian economy as it is banking economy often. In this paper a discussion is mooted and analysis is laid upon various processes in relation to IT risk and risk management strategies available therein. This Paper also prompts some current practices which are envisaged in banking sector. A work on the tools for building operational efficiency in the course of Continuous Process Improvement (CPI) in banks is laid down. IT governance and Service Level Management process is accounted in detail. Further, Incident Management Overview process and Capacity Management Process have also been depicted. Hence, this discussion paper in IT Risk Management (ITRM) and its governance in banking delivers a launchpad-provision to the pertinent researchers. In later part of the paper, available and supported risk mitigation strategies are also discussed widely.

**KEYWORDS** Efficiency | Capacity | SCM | Governance | Risk Management

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## Introduction

The non-dependence on the IT by banks is almost zero. Therefore, the zero intolerance over loss due to operational risk is in exercise almost in all banks. There are two perspectives that may require immediate attention. First, the risk management process is an constantly continuous iterative method. It must be repetitive infinitely. The business environment is constantly and swiftly dynamic and fresh pressures and vulnerabilities emerge every day. Next is, the choice of counter-measures used to manage risks must strike a balance between productivity, cost, effectiveness of the counter-measure, and the value of the information-asset being protected.

Risk management is the process that permits IT practitioners to poise the operational and economic costs of protective actions and achieve gains in mission capability by protecting the IT systems and data that provision their organizations' missions. This process is not exceptional to the IT environment; indeed it permeates decision-making in all areas of our daily lives.

The head of an organizational unit must ensure that the organization has the capabilities needed to accomplish its mission. These mission owners must regulate the security capabilities that their IT systems must have to afford the desired level of mission support in the face of real world threats. Most firms have narrow budgets for IT security; therefore, IT security expenditure must be studied as thoroughly

as other managerial decisions. A well-structured risk management methodology, when used effectively, can help management recognizesuitable controls for providing the mission-essential security competences. Risk management in the IT ecosphere is quite a compound, multi faced activity, with a lot of relations with other intricate activities.

## Review of Literature

Risk management refers to the logical development and execution of a plan to deal with potential losses (Mark S. Dorfman, 2007). 'IT risk is the potential for an unplanned event involving a failure or misuse of IT to threaten an enterprise objective – and it is no longer confined to a company's IT department or data center. An IT risk incident has the potential to produce substantial business consequences that touch a wide range of stakeholders. In short, IT risk matters – now more than ever' (George Westerman & Richard Hunter, 2007). ITRM is the solicitation of risk management methods to Information technology in order to manage IT risk, i.e.: The assumed business risk and associated when the organization involved in the use, ownership, operation, involvement, influence and adoption of IT at an enterprise-wide level. Hence, ITRM shall also be considered from the ERM point of view. Enterprise Risk Management (ERM) is a strategic business discipline that supports the achievement of an organisation's objectives by addressing the full spectrum of its risks and managing the combined impact of those risks as interrelated risk portfolio (Paul Hopkin,

## Objectives

This study predominantly captures conceptual foundations about integrated risk management and governance in IT in banking operations without compromising the operational efficiency.

## Methodology

Discussion on various concepts in risk management and ERM oriented towards optimization of associated risks in operational efficiency in banks is embarked. Various pertinent processes are depicted in diagrams.

2014) (p. 207). The Certified Information Systems Auditor Review Manual 2006 produced by ISACA, an international professional association fixated on IT Governance, delivers the following description of risk management: “*Risk management* is the process of identifying vulnerabilities and threats to the information resources used by a firm in achieving business objectives, and deciding what countermeasures, if any, to take in reducing risk to an acceptable level, based on the value of the information resource to the organization. ITRM along with other types of risk shall be subsumed into ERM system. ‘The risk governance process is the force that pulls otherwise fragmented, localize views of IT risk together into a comprehensive whole, allowing the enterprise to effectively set priorities and act... Most large enterprises lead their IT risk management with an effective risk governance process. For all enterprises, it is essential to be competent at this discipline as rapidly as possible’ (George Westerman & Richard Hunter, 2007).

The establishment, maintenance and continuous apprise of an Information Security and Management System (ISMS) provide a stout indication that the IT management is using a systematic and scientific approach for the identification, assessment and management of information security risks. Different methodologies have been proposed to manage IT risks, each of them divided in processes and steps. According to ITRM, it incorporates not just only the negative impact of operations and service delivery which can bring annihilation or decrease of the value of the organization, but also the benefit/value enabling risk associated to missing opportunities to use technology to enable or enhance business or the IT project management for aspects like overspending or late delivery with adverse business effect.

As risk is strictly tied to uncertainty, Decision theory should be applied to manage risk as a science, i.e. rationally making choices under uncertainty. The contrast between risk and uncertainty is the application of ‘likelihoodness’. How far the human

expectations have been mixed with the future aberrations and the computations have been fine-grained for conceptions, to determine the degree of uncertainty in a decision and to optimize it, are the matter of bettering the quality of life. “All decision makers are equally likely to profit as well as to lose; luck is the sole determinant of success or failure. Uncertainty exists when the outcomes of managerial decisions cannot be predicted with absolute accuracy, but all probabilities and their associated probabilities are known. Under conditions of uncertainty, informed managerial decisions are possible. Experience, insight and prudence allow investment managers to devise strategies for minimizing the chance of failing to meet business objectives” (Hirschey, 2009). Management of uncertainty is being widely conducted by tools such as Laplace Criterion, Savage Criterion etc. (Tapiero, 2004)

Generally, the terms risk and uncertainty have been used interchangeably. However, risk refers to uncertainty in which the possible outcomes are either ‘loss or no loss’ rather than with uncertainties that also present the opportunity for profit (Trieschmann, Hoyt, & Sommer, 2007). In general terms, risk is the outcome of likelihood times impact. The degree of an IT risk can be determined as a result of threat, vulnerability and asset values:

## Analysis and Discussion

A bank’s operating model defines the delivery mechanism to accomplish its business goals. It comprises products and services, staff systems, policies and procedures. There is a cost and risk in delivering products and services to the markets. The efficiency and maturity of the operating model determines the bank’s ability to create value for its customers at optimized cost and minimal risk.

A new bank creates its model from scratch. It could draw from the experience of similar banks. The model for an existing bank evolves over a period and the residual risks in banking processes determines the maturity of the model





- Good operating model
- Provides the correct environment for attaining goals
- Establishes ownership for processes and/or activities
- Aligns technical processes with business processes
- Assigns and integrates systems and staff for the execution of policy procedures
- Standardizes the delivery processes and accommodates approved variations necessitated by local business conditions
- Is scalable to meet organization's growth targets
- Has the right mix of preventive and detective controls
- Allows for cost optimization and risk mitigation.

## Model Optimisation

Risk and Control monitoring occurs in dynamic business setting. An Optimised Model shall be attained if the bank's obligation to CPI (Continuous Process Improvement) is sufficient. The projections and consequences pronounced in the forthcoming portion of this Paper on Tool for constructing a process-based Mature Operating model protrudes an inroad to luster the approaches to Operating Model Optimisation.

### Tools for constructing Operating Efficiency

By employing the following tools the functional as well as technical processes can fully be amplified to alleviate costs in consonant with mitigating operational risks for optimising benefits:

- i. Business Process Management Suite (BPMS)
- ii. Information Technology Governance (ITG)
- iii. Advanced Analytics (AA)

Whilst Business Process Management Suite and IT Governance help model and compose process based banking activities, Analytics allows and paves a way for the Operations Group and other functions, to monitor the performance and continuously headway the processes. Of the above, ITG shall be discussed as follows:

### Information Technology Governance (ITG):

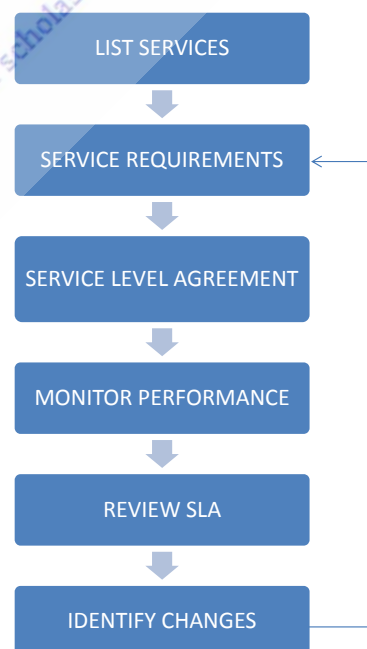
In normal course of action, the governance model shall allow the evaluation of technology usage for the purpose of improving business processes and line up technology in response to the business. The model also takes care of resource deployment on priority front. Employ Business Impact Analysis (BIA) to set priorities and timelines for the purpose of recovery. 'BIA takes senior management's discussion of tolerance for availability risk to a detailed level, including assessment of how failure in specific business processes will affect the business over time, hour by hour and day by day, and the circumstances in which processes might fall' (George Westerman & Richard Hunter, 2007).

### ITG predominantly has two components inherently, as follows:

- Governing Knowledge consists of Objectives, Policies, Strategy, Scientific Procedures and Superior Practices. Each part has greater import in its importance for the IT Governance and its practice.
- IT Governance Tool.

## Service Level Management

Management includes both internal and external Service Level Agreements. It includes Vendor Management. Process-1: Service Level Management.



### Availability Management

This is the overall architecture of the organization. It would include the clients, messaging, routers, bridges, servers, operating systems, system software, load balancing, firewalls, bandwidth and internet management.

### Incident Management System

IMS of an organization would usually include intrusions, incidents and the response system. The objectives are (i) Roles, responsibilities and Training (ii) suitable tools are accessible for the purpose, (iii) Protection of assets

Process-2 – An Overview of an Incident Management



### Application Management

The entire spectrum of an organisation’s solution architecture could be classified into Non-production and Production systems. Commonly a higher severity is the concern entwined with the Production Environment.

### Change Management

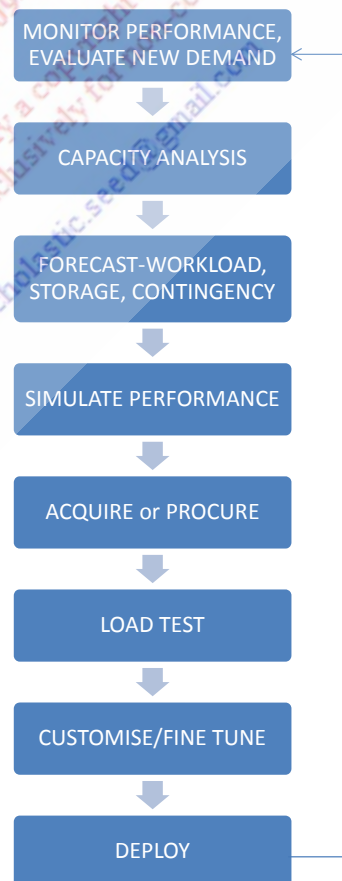
Identifying a change is the challenge for the governance model. Once, it is identified, then eventually the authorization process will also be solidified.

Asset Protection subsume Source Code Management in its fold. Additionally, Along with software vendors, Escrow Agreements should also be in place.

### Management of Capacity

Figures with respect to Business growth are ingredients for the prospective exercise. Depending on the expected growth, the infrastructure team confirms the risks of having capacity constraints if service support and delivery are minimalized. Every ITIL element is process oriented. The following figure is, for instance, providing an overview of Management of Capacity.

Process-3: Management of Capacity







The processes exhibited *supra* are beneficial in ITRM (ITRM) and its governance. For the continuity of banking business, Risk mitigation strategies are decisive and most imperative amongst.

## Risk Mitigation:

Risk mitigation as a part of the ERM is an application of methodical approach by senior management to appease mission risk. Specialists need to understand lots of details, but most people only need to understand risk in terms of what create risk for them and what they can do to reduce their vulnerability to those risks (George Westerman & Richard Hunter, 2007). The following risk mitigation alternatives are available:

- **Risk Assumption.** Assuming the potential risk and harvesting the benefits of operating the IT system or to exercise controls to reduce risk at a desired state.
- **Risk Avoidance.** If the peril or source of the risk is avoided, the exposure itself shall be minimized.
- **Risk Limitation.** A good management control system limit the quantum and frequency of risk exposure.
- **Risk Planning.** To develop a risk mitigation plan which is destined (to manage risk) to prioritize, implement, and maintain controls
- **Research and Acknowledgement.** Identifying or acknowledging vulnerability, which increases exposure, involves research. This vulnerability leads to risk and consequently chance to loss or loss itself are result. In order to implement control, research should be in place to correct vulnerability.
- **Risk Transference.** Insurance planning holds high importance both for cost consideration

and risk transfer. Apart from insurance, other methods may be explored for transference.

Report the greatest risks and work for sufficient risk reduction at the lowest cost, with minimal impact on other mission capabilities. The term methodology means an organized set of principles and rules that drive action in a particular field of knowledge. A methodology does not describe specific methods; nevertheless it does specify several processes that need to be followed. These processes constitute a generic framework. They may be broken down in sub-processes, they may be combined, or their sequence may change. However, any risk management exercise must carry out these processes in one form or another. The following table compare the processes foreseen by three leading standards. ISACA Risk IT framework is more recent. The Risk IT Practitioner-Guild compares Risk IT and ISO 27005. The overall comparison is illustrated in the following table.

With respect to the probabilistic nature and the requirement of cost benefit analysis, the process in the management of IT risk, in the lines of NIST SP 800-30, can be divided in the following processual steps.

Effective risk management is of the characteristic of complete assimilation into the Systems Development Life Cycle. The analysis of Information risk conducted on applications, computer installations, networks and systems under development should be administered using structured methodologies.

Finally, operationalizing a strategy for ITRM means incorporating it into the enterprise's foundation, observing risk governance process, and conducting risk awareness programs (George Westerman & Richard Hunter, 2007).

## Risk management constituent processes

CONTEXT		Risk IT	
Context establishment	Organizational context		RG and RE Domains more precisely <ul style="list-style-type: none"> <li>RG1.2 Propose IT risk tolerance,</li> <li>RG2.1 Establish and maintain accountability for ITRM</li> <li>RG2.3 Adapt IT risk practices to enterprise risk practices,</li> <li>RG2.4 Provide adequate resources for ITRM,</li> <li>RE2.1 Define IT risk analysis scope.</li> </ul>
Risk assessment	Risk assessment	Risk assessment	RE2 process includes: <ul style="list-style-type: none"> <li>RE2.1 Define IT risk analysis scope.</li> <li>RE2.2 Estimate IT risk.</li> <li>RE2.3 Identify risk response options.</li> <li>RE2.4 Perform a peer review of IT risk analysis.</li> </ul> In general, the elements as described in the ISO 27005 process are all included in Risk IT; however, some are structured and named differently.
Risk Awareness	Risk-Aware Culture	Risk Information	Affected employees must informed of new risk priorities and the rationale behind them, and managers at all levels must show support in word and deed.
Risk treatment	Risk treatment and management decision making	Risk mitigation	<ul style="list-style-type: none"> <li>RE 2.3 Identify risk response options</li> <li>RR2.3 Respond to discovered risk exposure and opportunity</li> </ul>
Risk acceptance			RG3.4 Accept IT risk
Risk communication	Ongoing risk management activities		<ul style="list-style-type: none"> <li>RG1.5 Promote IT risk-aware culture</li> <li>RG1.6 Encourage effective communication of IT risk</li> <li>RE3.6 Develop IT risk indicators.</li> </ul>
Risk monitoring and review		Evaluation and assessment	<ul style="list-style-type: none"> <li>RG2 Integrate with ERM.</li> <li>RE2.4 Perform a peer review of IT risk analysis.</li> <li>RG2.5 Provide independent assurance over ITRM</li> </ul>

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### GJEIS Prevent Plagiarism in Publication

The Editorial Board had used the ithenticate plagiarism [<http://www.ithenticate.com>] tool to check the originality and further affixed the similarity index which is 2% in this case (See Annexure-I). Thus the reviewers and editors are of view to find it suitable to publish in this Volume-10, Issue-3, July-Sep, 2018

### Annexure 1

ENTERPRISE RISK MANAGEMENT IN IT AND ITS GOVERNANCE: A PRAGMATIC ANALYSIS FOR OPERATIONAL EFFICIENCY IN BANKING

ORIGINALITY REPORT

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## Cyber Insurance – A Rising Market in India

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### EDITORIAL BOARD EXCERPT

Primarily at the Time of Submission (ToS) submitted paper had a 11% plagiarism which is a time-honored percentage for publication. The editorial board is of an observation that paper had a consecutive close watch by the blind reviewer's which at a later stages had been put right and amended by an authors (gajapathy & reshma) in various phases as and when required to do so. The reviewer's had in a preliminary stages comment with minor amendment with a subsequent declaration which at a short span restructured by an authors. The comments related to this text are extremely noticeable related to **Cyber Insurance** both subject-wise and research wise by the reviewers during assessment and further at blind review procedure too. The subject matter of the paper is truly thematic and it's the need of the hour to perform a detail study on cyber insurance in the growing globalized cyber space. The authors have put empirical evidence to authenticate the study. The literature review could have been more in-depth but we understand the lack of literature in the concern area. Cyber-crime is a vast area which could have been elaborated more. The conclusion and discussion are well suited in today's context. All the comments had been shared at a variety of dates by the authors' in due course of time and same had been integrated by the authors in calculation. By and large all the editorial and reviewer's comments had been incorporated in a paper and further the manuscript had been earmarked and decided under "**Empirical Research Paper**" category as its highlights and emphasize the work in relation to Cyber Insurance – A Rising Market in India

**ABSTRACT** Digital Marketing capturing Global markets into its stride and huge revolution happening in the way the business transactions are being carried on, there has been an invent of many risks associated with it. Digitization with its opportunities has also uncovered dangers such as data theft, hacking, theft of identity etc. These dangers have been taken care at various levels of processes through software designing with integral safety of operations. Every phase has been designed with lot of attention and care over a process of modernization and progression.

After all such security levels, still the possibility of risk is experienced, which leaves the victim with huge financial loss and in some situations the liability goes beyond the bearing capacity of an individual or an organization. The solace for these victims is cyber insurance. The Insurance companies cannot prevent the cyber-crimes however, they are a big boon for reducing the financial loss in the happening of an event. Even though cyber insurance is a matured market in the west, it is still at an infancy stage in India. This paper analyzes the market for cyber insurance in India and the awareness of it among the digital marketers. It also studies the current policies available and its adequacy to the current market situation and its scope. It has been evident that, India has a huge market for Cyber Insurance and it will have a huge growth in days to come.

**KEYWORDS** Digital Markets | Risk | Cyber-crime | Cyber Insurance | IRDAI

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## Introduction

With Digital Marketing taking the Global markets into its stride and huge revolution happening in the way the business transactions are being carried on, there has been an invent of many risks associated with it. Online services such as online shopping, net banking, phone banking, air, train and bus ticket bookings, planning holidays, educational services and IT services has ensured we live an easy life and have access to all information at our finger tips. However, all these services are available to us because of the laborious hard work accompanied with highest level of dedication and commitment to keep the system running in the background so that we enjoy a flawless service. Every phase has been designed with lot of attention and care over a process of modernization and progression.

Digitization with its opportunities has also uncovered dangers such as data theft, hacking, theft of identity etc. These dangers have been taken care at various levels of processes through software designing with integral safety of operations. After all such security levels, still the possibility of risk is experienced, which leaves the victim with huge financial loss and in some situations the liability goes beyond the bearing capacity of an individual or an organization. The number of cyber-crimes is increasing rapidly and the statistics says that India is prone to one cyber-crime in every ten minutes.

Below is the table showing the number of cyber-crime cases reported from 2009 to 2017.

Year	2009	2010	2011	2012	2013	2014	2015	2016
No of cases Reported	696	1,322	2,213	3,477	5,693	9,622	11,592	12,317

Table-1. Source - NCRB

The above table indicates the surge in No of cyber-crime cases reported in India since 2009. This has elevated thoughtful apprehensions concerning our readiness to handle cyber-crime and its consequences on entities and society in total.

The above scenario led to the offering of Cyber-insurance product. This is an insurance product which protects individuals and organizations from internet based risks. It covers business liability for any sort of data breach which has negotiated the financial safety of the individual users.

Cyber-insurance market is relatively small when compared to other insurance products and in India it has been launched very recently and only a couple of insurance providers are offering this service.

## Literature Review

Cybercrimes have risen with the increase in Globalization. The machineries of government moving towards a cashless society should also ensure that policies and steps are taken to protect the end users of the same. Cyber insurance should be an area where the government should definitely look into (Sreemathi Raghunandan and KalyaniGorti, 2016). In his research, Bharadwaj (2016) brings forth the importance of Cyber Insurance in today’s scenario. It also highlights that we do not have a mechanism in place to address these issues and as of now few private companies are offering cyber insurance to private companies which store data of individuals. In their paper, the emphasis was that though Cyber Insurance has not garnered importance in the current scenario, Dr. Purietl (2016), expressed it may not be



long before it becomes a requisite for all business establishments and individuals. It is, further said, the responsibility of the Government bodies to ensure that appropriate measures are put in place to cover organizations against Cyber Risks.

39% of the respondents have encountered Cyber Attack by way of Virus Attack and the next being with Email Bombing which has led to an increased incidence of Data Violation.

## Analysis and Interpretation

### Frequent Cyber Attacks Encountered

Most Frequent Cyber Attacks	Email - Bombing	Data Snooping	Virus Attacks	Login Violation	Trojan Attacks	Internet Theft	Obscene mail	Total
Count	26	13	47	4	6	10	14	120
Percentage	22%	11%	39%	3%	5%	8%	12%	100%

Table-2. Source: Computed from the primary data.

Among the 120 participants, Virus Attack has been the major type of cyber-attack encountered by them with 47 participants being a victim of this form of cyber-attack, followed by Email Bombing with 26 victims, Obscene mail with 14 victims, Data Snooping with 13 victims, Internet theft with 10 victims, Trojan Attacks with 6 victims and Login Violation with 4 victims respectively.

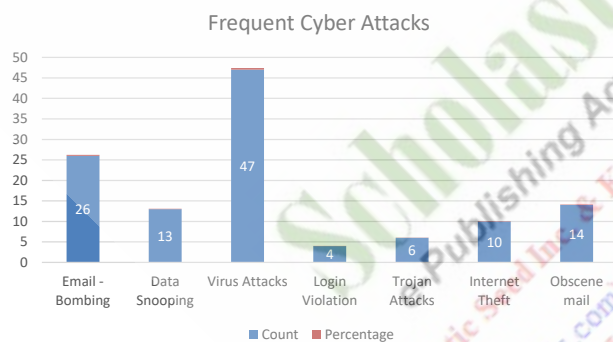


Figure-1. Source: Computed from the primary data.

### Count of Cyber Risks encountered and the Need for Cyber Insurance

		Count of Cyber Risks Encountered					Total
		Never	1 time	2 - 5 times	5 - 10 times	More than 10 times	
Need for Cyber Insurance	No Need		1	2	1	1	5
	Maybe		1	3	1	2	7
	Neutral	2	7	4	4	17	34
	Needed	4	7	6	3	18	38
	Most Needed	4	9	4	2	17	36
Total		10	25	19	11	55	120

Table-3. Source: Computed from the primary data.

## Objectives

The study holds the following objectives:

1. To classify cybercrimes based on the frequency of attack.
2. To appraise the role of Insurance in combating cyber-attacks.
3. To examine the market for Cyber Insurance.

## Methodology

The Data was collected through Primary Source by way of Questionnaire. Considering the time and objectives the sample size has been optimized to be 120 respondents. The tools employed for the analysis are percentage, frequency and cross tabs.

Among the total participants of 120, 110 participants have encountered cyber risks in their daily life. 74 participants feel there definitely is a need for Cyber Insurance in India.

We can conclude that 62% of the respondents who encountered Cyber Risks are positive that Cyber Insurance is the need of the hour.

### Need for Cyber Insurance

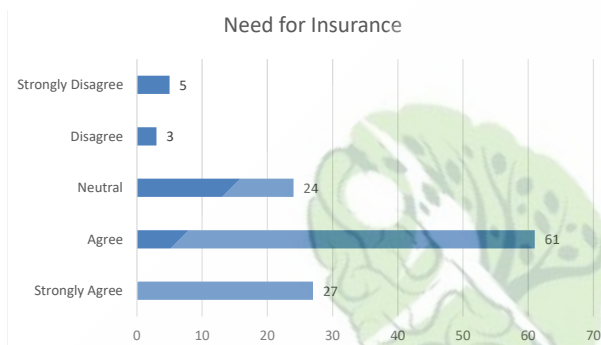


Figure-2. Source: Computed from the primary data.

Among the total participants of 120, 61 respondents agree and 27 respondents strongly agree that there is a need for Cyber Insurance to protect them against cybercrime. So, we can conclude that 73% of the respondents agree for the need for Cyber Insurance.

### Willingness to avail Cyber Insurance

Category	Avail Cyber Insurance		
	Yes	No	Total
Strongly Agree	26	1	27
Agree	49	12	61
Neutral	10	14	24
Disagree	2	1	3
Strongly Disagree	4	1	5
<b>Total</b>	<b>91</b>	<b>29</b>	<b>120</b>

Table-4. Source: Computed from the primary data.

Among the total participants who were asked to respond on the Need for Cyber Insurance, 88 participants i.e 73% responded that there is a need for cyber insurance and 8 participants felt that there is no need for cyber Insurance while 24 participants remained neutral to the need for cyber insurance. Of the 88 participants who felt the need for Cyber Insurance, 75 of them are positive on taking a Cyber Insurance to cover themselves against Cyber Risks. .

85% respondents felt the need for Cyber Insurance and have agreed to go in for cyber insurance coverage if the Indian Insurers offer the same.

### Preference of Insurance Provider

Avail Cyber Insurance	Insurance Provider		
	Public Sector	Private Sector	Total
Yes	71	20	91
No	21	8	29
<b>Total</b>	<b>92</b>	<b>28</b>	<b>120</b>

Table-5. Source: Computed from the primary data.

Among the total participants who were asked to respond on the preference of the Insurance provider, 92 participants responded that they will go in with a public sector insurance provider and only 28 participants are fine with going to a private insurance provider. Of the 91 participants who responded that they would go in for Cyber Insurance, 71 participants would prefer having them insured from a public-sector insurance provider and only 20 participants are ok with a private sector Insurance provider.

To sum up, 76% of the respondents would trust a public-sector Insurance provider to cover them for Cyber Insurance.





## Conclusion

India, being one of the fastest growing economies in the world, is looking at increasing its presence in the Global markets and one of the major steps towards it is to build the Digital markets and to move towards a digitized and cashless society. Every effort is being focused in this direction. As attendants of the growth, the challenges are acute and one of the major areas that is being dealt with is the rapid increase in the cyber-crimes in India. The Indian Computer Emergency Response Team reports that a total of 27,482 cases of cybercrimes have been reported across the world. They also go on to add that one Indian is being a victim of cyber-attack every 10 minutes.

Thus, Cyber Insurance has a major role to play in ensuring that the interest of the companies and individuals are protected. 85% of the respondents who have encountered cybercrime have felt the need for Cyber Insurance and have agreed to go in for cyber insurance coverage if the Indian Insurers offer the same. Since this being a new area in India, 76% of the respondents feel secure to protect themselves through Cyber Insurance being offered by a Public Sector Insurance provider and the Government should take mammoth step in putting in place the policies governing Cyber Insurance and the protection being offered along with affordable premiums.

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**GJEIS Prevent Plagiarism in Publication**

The Editorial Board had used the ithenticate plagiarism [<http://www.ithenticate.com>] tool to check the originality and further affixed the similarity index which is 11% in this case (See Annexure-I). Thus the reviewers and editors are of view to find it suitable to publish in this Volume-10, Issue-3, July-Sep, 2018

## Annexure 1

**CYBER INSURANCE**

**ORIGINALITY REPORT**



**PRIMARY SOURCES**

<b>1</b>	Submitted to Curtin University of Technology	1%
	Student Paper	
<b>2</b>	bae.uncg.edu	1%
	Internet Source	
<b>3</b>	Submitted to American Public University System	1%
	Student Paper	
<b>4</b>	Submitted to Texas State University- San Marcos	1%
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Scholastic Seed Inc.



## Digitalization Space as Marketing Tool for Luxury Hotels

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**EDITORIAL BOARD EXCERPT** Initially at the Time of Submission (ToS) submitted paper had a 21% plagiarism is an accepted percentage for publication as some of the references and works depict are overlapped by the author past research for which the author had already communicated and undertake. The editorial board is of an observation that paper had a successive close watch by the blind reviewer's which at a later stages had been rectified and amended by an authors (savita, sidhrath & sanjay) in various phases as and when required to do so. The reviewer's had in a preliminary stages remark with minor revision which at a short span restructured by the authors. The authors have attempted study that would add to the existing pool of knowledge in **Digitalization Space as Marketing Tool for Luxury Hotels**. The review paper is a well-directed effort in understanding how Hotel industry is moving towards seamless connections in which personalized, prompt and integrated services are required to be stable in this competitive world. The next attempt could be to substantiate with empirical evidences. The comments related to this manuscript are tremendously noticeable related to Digitalization Space as Marketing Tool both subject-wise and research wise by the reviewers during evaluation and further at blind review process too. All the comments had been shared at a variety of dates by the authors' in due course of time and same had been integrated by the author in calculation. By and large all the editorial and reviewer's comments had been incorporated in a paper at the end and further the manuscript had been earmarked and decided under "Empirical Research Paper" category as its highlights and emphasize the work in relation to use of Digitalization Space as Marketing Tool for Luxury Hotels which is an exploratory study

**ABSTRACT** In this digital age, technology has made the global market fast and error less. None of the industries have left untouched by the technology. In fact, the competition has become arduous when it comes to top tier of hotels, referred as luxury hotels. This paper aims to study the benefits of engagement of technology for experience-based guest services by the luxury hotels. It was found that when hotels were using semi-automated systems then services delivered were slow and was difficult to maintain the record of the guests. Whereas, fully automated systems benefited hotels to provide efficient services to the guests with more accuracy and hotels were also able to maintain the records in a better manner. Hotels are even digitalized to take the restaurant orders, booking rooms, analyze the room revenue reports and digitally controlled stay experience.

**KEYWORDS** Digitalization | Hotels | Guest Experience

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## Introduction

Digitalization has become a part of daily life so closely that we don't even realize that technology is used most of the time in one or other form. Hotel industry is moving towards seamless connections in which personalized, prompt and integrated services are required to be stable in this competitive world. New digital trends and smart technologies increasing the level of competition amongst the hotels especially the luxury segment of hotels because they are considered to be the best service providers for elite group of customers. The continuous change in the technology has improved the standard of services and made the customer experience seamless, enjoyable and memorable. Digital technology has reduced the transactional friction and increased the customer satisfaction. In today's scenario, technology is growing at such a rapid pace that it is disrupting the innovative ideas in very short span of time. Therefore, customers' expectations are now moving towards the personalized and fast services so that they do not waste time in routine work. Customers are empowered with a lot of information online and becoming perceptive about their preferences and alternate options available to them. In today's hospitality market, there is endless options for a customer, therefore, ease of fulfilment is considered to be one of the key factor in the decision-making process.

## Literature Review:

Hotels are considered to be an organization which provides basic needs to a customer such as accommodation and food. Hotels which provide services more than the basic needs with high standards of comfort and convenience to the guests are known as luxury hotels (Becker, 2009). Where, Mobile Travel Guide, 2013 has defined luxury hotel as an upscale hotel which costs more than the average accommodation, which shows that it is difficult to define luxury hotel for a simple reason that it is even more challenging to freeze the word 'luxury' because luxurious experience is interconnected with each person's hopes, dreams and perception (Michman&Mazze, 2006). One person's perception regarding luxury may be other person's necessity and vice-versa. It is truly a class apart in various ways when considering accommodation providers. The luxury hotel industry has evolved as an outlet for travelers to dream of and fantasize about other lifestyles (Curtis, 2001). These hotels are volatile in nature because of top-line service, opulent facilities and its high operational costs. The entire hotel runs upon the occupancy percentage of customers. Luxury hotels has become a topic for researchers and academicians and there have been numerous studies done on the luxury hotels over 20 years. Narteh et al. (2013) studied marketing and its relationship with customer of luxury hotels, Walls et al. (2011) have explored customers' experience of luxury hotels, Chen & Peng (2014) have studied customers' staying

## Methodology

Luxury hotel segment provides best of the services to the customers and its focus is generally on the sparking customers' imagination. This paper provides the customers' views on the technology used by the luxury hotels. Hotel guests go through various stages which is called as stages of guest cycle and consists of majorly five stages (refer table 1) named as pre-arrival, arrival, during the stage, departure and post departure which performs various functions like booking of rooms, check-in, food delivery, message handling, wake-up calls, feedback, complaint handling, check-out, making rapport with customer after they leave the hotel. For all the functions and systems, all the luxury hotels are using automated systems which helps the employees to work efficiently and effectively and they are able to complete the work at lesser time than previous methods which were used by non-automated and semi-automated systems. Mode of services provided to guests can be done directly by hotel staff or it can also be done electronically, therefore, customers were asked about their preferred way of receiving services through a questionnaire.

behavior of luxury hotels in China, Wu and Liang (2009) have observed the effect of experiential value on customer satisfaction with service encounters in luxury-hotel restaurants, Judy et al. (2006) have found the difference and similarities between loyal (regular) and transient (for shorter time) guests of luxury hotels, Chan (1998) observed guests' decision process of luxury hotels in China, Oh (2002) investigated the problem of overpriced strategies in upscale hotels, Zheng et al. (2009); Kim (2009); Hyun and Kang (2013) have focused on customer retention and customer satisfaction, many authors (Sanders and Frenkel (2012); Taylor and Finley (2008); Davidson et al. (2006)) have worked on human resource management in luxury hotels. Lee and Hwang (2011) have studied behavioral features of consumers for luxury hotels from both psychological and demographic perspective, but there is lack of input towards the customers' point of view on the use of digitalization, especially in Indian luxury hotels. In today's world, customers mostly rely on technology and want their work to be done on a faster pace. Therefore, it becomes significant for luxury hotels to understand the customers' point of view towards the importance of digitalization.

**Table 1: Guest Cycle, its Functions and Mode of Providing Services**

Stages of Guest Cycle	Hotel Functions	Mode of Providing Services
Pre-arrival Stage	Reservation (booking of rooms)	Reservation on phone Online booking
Arrival Stage	Check-in of guests (registration)	Registration at desk Self-Check-in
During the Stay Stage	Order taking Message handling Wakeup calls Complaint handling In-room Services Feedback	Hotel Staff/ Online
Departure Stage	Settling bills Check-out	Express Checkout Check-out at Cashier's Desk
Post Departure	Making rapport with guest	Phone calls Emails, Text Messages

Present research was conducted with by sending survey forms to customers who have stayed at luxury hotels in Delhi, NCR in India. Total 200 survey forms (online and hardcopy) were received from the customers who generally opt to stay at luxury hotels, out of which 58 were females and 142 were males. Profile of these kind of customers were vice presidents, chief executive officers, chairmen, general managers, deputy managers, vice chancellors, senior executives, owners of companies and others.

**Table 2: Preferred Mode of Providing Services**

Functions	Mode of Providing Services	N= 200
Reservation (booking of rooms)	Reservation on phone	65
	Online booking	135
Check-in of guests (registration)	Registration at desk	70
	Self-Check-in	130
Order taking Message handling Wakeup calls Complaint handling In-room Services Feedback	Hotel Staff	100
Settling bills Check-out	Online	100
Settling bills	Express Checkout	145
Check-out	Check-out at Cashier's Desk	55
Making rapport with guest	Phone calls	50
	Emails, Text Messages	150



Booking of rooms fall under the first stage of guest cycle where a guest chooses the hotel for the stay, decides the type and standard of room. This survey reflects that guests prefer online booking (135) of rooms instead making a call to the hotel reservation department (65) because it gives a clear comparison of room tariff and faster booking. Check-in procedure falls under the second stage of guest cycle where a guest registers by filling up and signing the hotel registration form. This survey reflects that 130 guests prefer to register through self-check-in procedure rather going to reception counter and filling up the registration form, 70 guests would not mind going at the reception counter for registering themselves. Guest services like order taking, in-room services, wakeup calls, complaint handling, feedback, etc. falls under third stage of guest cycle where guests use the services and facilities while actually staying in the hotel. This survey reflects that 50 percent of the guests would like to interact with hotel employees when they are staying in the hotel and 50 percent of the guests doesn't have any problem going electronically for the services during their stay. Check-out falls under the fourth stage of guest cycle where hotels prepares the final bill for guests' review and take the payment from guests to finally settle the bill and close the guest account. This survey reflects that 145 guests prefer express check-out where 55 guests would like to go to the cashier's desk for the final settlement of their account. Being in touch with the guests for event promotions, discounts and other activities fall under fifth stage of the guest cycle. This survey reflects that 75 percent of the guests would like to receive text messages and emails for the discounts, event promotions, etc. where 25% of the guests would like telephone call from the hotel employees.

Guests were also asked few open ended questions such as:

- How open you are to download hotel app on your handset?
- Do you read the reviews about the hotel before deciding the stay in a particular hotel?
- Would you like to receive services from robotic process automation (RPA)?
- If shown a clear comparison of room tariff using latest app, would you like to download the app?
- What is view on the advertisements scrolling on social networking platforms, does it help you?

Reviewing all the data carefully, it is observed that guests prefer using online applications because they can use it anytime without disturbing other people around them. Guests are comfortable using digital technology because it is convenient for them and it saves their time. Most of the guests accepted that they are ready to download new apps on their handset, they would like to read the reviews about the hotels' services and facilities before making reservation. They are even happy to receive services from robotics if machines can understand their necessarily in similar manner the way hotel employees do, in fact it will more exciting for them. They would like to download any latest app on their mobile phones if it benefits them in long way without wasting their time and resources. They also believe that social networking platforms are also helping them to follow certain discounts, event promotions, etc.

## Conclusion

This paper presents different areas where digitalization is playing central role in the luxury hotel industry. It has been found that the customers of luxury hotels expect the hotel procedures on a faster pace because they don't want to waste their time by standing in long queue for the check-in and check-out, making reservations through phone where a reservation agent asks for many personal and professional details which a lot of time instead they would like to opt for a self-booking reservation form to be filled by themselves. Therefore, as per customers' point of view, they would like hotels to make the provision where customers do not have to spend a lot of time in providing information and talking to the hotel employees for the regular





operational procedures. They want fast and user friendly technology which help the customers to compare the services amongst all the luxury hotels and saves their time. Therefore, it can be said that digital marketing can be used to embrace the guests' requirements and convenience. It is a new discipline which is beneficial for hotels and convenient for guests. Hotels are incorporating digital marketing into their strategies to provide better services to the guests and attract them towards their hotel mechanism. Use of digitalization even assist the hotelsto generate errorless and faster reports for analysis of their hotel's performance, requirement for improvements. Hotels can provide more personalized services through digitalization to the guests which can make their stay even more memorable.

## Future Research and Suggestions

Digital marketing for hotels is becoming more and more complex because hotel managers have to plan to deliver services to the guests, manage rooms, availabilities and pricing and also have to think for the solutions which are competing in the marketing and guests are indulged into new channels for deciding their preferences. Digitalization is spread all across in the hotel industry which gives a threat to the luxury hotel market to keep them at the niche market. Mangers of luxury hotels have to think ahead from other hotel categories and create a platform which is totally different from non-luxury hotels. Objective of finding out various digitals way to differentiate between the service provided and exceeding their expectations could be a subject area for further research.

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The Editorial Board had used the iThenticate plagiarism [http://www.ithenticate.com] tool to check the originality and further affixed the similarity index which is 21% in this case (See Annexure-I). Thus the reviewers and editors are of view to find it suitable to publish in this Volume-10, Issue-3, July-Sep, 2018

**Annexure 1**

Digital space as marketing tool for luxury hotels

ORIGINALITY REPORT



PRIMARY SOURCES

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# Manoeuvre of Electronic Entrepreneurial Ecosystem to Contemporary Indicator of Techno Business Leadership in Industry 4.0: Digital Entrepreneurship

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## EDITORIAL BOARD EXCERPT

Initially at the Time of Submission (ToS) submitted paper had a 01% plagiarism which is an accepted entitlement for publication. The editorial board is of an surveillance that manuscript had a succeeding close watch by the blind reviewer's which at a later stages had been rectified and amended by an authors (gagan, swapan & satish) in a variety of phases as and when necessary to accomplish so. The reviewer's had in a beginning stages remark with slight reconsideration which at a short span rationalized by an authors. This paper is a sincere attempt by authors to propose a framework for digital entrepreneurship research in the Industry 4.0 which provides direction and pathway for new industrial revolution leadership research and might save time and energy of many researchers in this domain. This paper is an effort to figure out what are acknowledged about digital entrepreneurship, what are not well-known and finally what are the research issues of digital entrepreneurship. The literature review reveals that digital entrepreneurship is a prime research area. The authors have definitely opened many newer facets of research in the area, a well-designed paper. The comments related to this manuscript are enormously perceptible related to **digital entrepreneurship vis-à-vis Industry 4.0** both subject-wise and research wise by the reviewers during assessment and further at blind review process moreover. All the comments had been shared at a variety of dates by the authors' in due course of time and same had been incorporated by the author in reckoning. By and large all the editorial and reviewer's comments had been incorporated in a paper at the end and further the manuscript had been earmarked and decided under "Theme Based Paper" category as its highlights and emphasize the work in relation to Manoeuvre of Electronic Entrepreneurial Ecosystem to Contemporary Indicator of Techno Business Leadership in Industry 4.0: Digital Entrepreneurship which is an exploratory study.

## ABSTRACT

E-Entrepreneurship is a traditional concept that already exists in the scenario. But, now the current improvement on e-Entrepreneurship alarms to change and bring in new ideas with latest trends of foresight business leadership named Digital Entrepreneurship. The signature of fourth Industrial Revolution however has multiple mixture of Digitization of entrepreneurship that evolves dissimilar proportions of business leadership at varied socioeconomic status (SES) factors for an Individual to start a digital venture. As many corporations started doing their business online either by selling goods and services or connecting customer and company or even customer and customer online for exchange of refurbished goods with space for negotiation. Such businesses are called digital business and the organization that builds such platform is called as digital enterprise. The leadership to hold such businesses in current era is Digital Entrepreneurship. Here the question is what does digital entrepreneurship, digital enterprise mean and who is a digital entrepreneur. Since the digital technologies and societal transformation are being more important in current economic status. Many digital innovations are being built day by day. Despite its significance, studies in this area are less and the concept is under-theorized. This study aims to fill the gap by analyzing the theoretical framework and understand the growing importance of digital entrepreneurship with opportunities, obstacles and describe the characteristic typology of digital entrepreneurship and digital enterprise in Industry 4.0 and list out the figured reasons for the failure of digital startups. To answer these questions, I adopted some different forms of new business venture types and also referred the research papers on technology and innovation in entrepreneurship as a theoretical lens; with this I would like to continue the discussion on critical success factors of Digital Entrepreneurship.

**KEYWORDS** Digital Entrepreneurship | Digitization | Innovation | Digital Technologies | Digital Startup | Industry 4.0

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## Introduction

In the Industry 4.0, which is the present trend of Automation, Ease of goods and service exchange and delivery, Right to information, Intelligent manufacturing technologies, progression of new cyber systems and policies, the Internet of things (IoT) and its dynamic mechanism of ICT Industries in cloud computing, cognitive computing, natural language processing, machine intelligence, advance robotics, 3D Printing, nano technology, Data Analytics to just name a few. These High technology driven transformations is responsible for major change in the delineation term of new Industrial revolution in Industry 4.0 is Digital Entrepreneurship Revolution / Digitization in which individual's chance to be part of this dynamic change. This is where the term digital has been into evolution and cannot be separated from where it came from and in the mere future there are many such technologies to play a crucial role in this transformation. Where there is ocean of opportunities to build new enterprises called Digital enterprises. Today, growing digital organizations is viewed as cautious support for development of economy, Improvement of countries infrastructure, Increase in Job opportunities and technological advancement and digital innovation. The improvement in the entrepreneurial ecosystem of the country will contribute towards digital growth. With avid growth to the business and the societal development leads to new birth of niche digital ventures. Along with this the digital revolution will foster to overcome social, economical and environmental challenges and improves the convenience by serving difficult to reach elements of the society. Of these developing new digital technologies has built greater opportunities with sustaining business plans. A good example like Amazon.com, eBay, Uber, Paytm and many other which have inspired many young minds turn digital entrepreneurs and, in this process has seeded many investors too.

## Review of Literature

Early Researches focused on Review of e-entrepreneurship which influence the decision to start a new venture in emerging markets (Quionones G., Nicholson B., and Heeks R., 2014) and studies on digital entrepreneurship eco-system (Li W. Du Weneyu du and Yim, Jianmin, 2017). Zaho F., A.C., 2016 studied research and practice on digital entrepreneurship covering (entrepreneurial culture, digital entrepreneurial ecosystem, digital innovation, digitally skilled manpower with digital knowledge base working in ICT Platform). And this study on industry 4.0 that is on Digital Entrepreneurship, meaning, framework and typology that are also part of this study (Giones F., Way A.B., 2017). Other researchers discussed on digital entrepreneurship study on entering into digital business, manufacturing, storing with digital Space, the role of market and problems in the virtual platform. This research trend continued by European Commission, JRC Technical Reports on Digital Entrepreneurship barriers and drivers (Bogdanowicz M., 2015). A good number of studies were suggested to explain the phenomenon of digital entrepreneurship though interests and studies in online, technology innovation and e-entrepreneurship continued to thrive by (Naude W., Szirmai A., 2013/17). But they could not find the clear picture of digital entrepreneurship like typology of digital entrepreneurship and digital enterprise; digital startups life cycle; growing importance of digital entrepreneurship through current statistical proofs; articulating the Opportunities and Obstacles of digital entrepreneurship; followed up with the reasons for the failure of digital startups; and discussion winding up with critical success factors of digital entrepreneurship; since the gap of these studies were found in technology innovation entrepreneurship research. I went a step further to find and fill the above discussions that help understand and develop the theory of digital entrepreneurship. Therefore, this present study was attempted to address this gap in the extant conceptual framework and discussion.



## Conceptual Literature

Digital Entrepreneurship is the extension of entrepreneurship in which digital innovation and digital technologies are the approach to conduct business. The rise of the World Wide Web, the huge networks that connect systems around the globe and has changed the digital ecosystem through the internet and opened many opportunities and has generated lakhs of job opportunities by new entrepreneurial start-ups and made an easier way of doing business by building a network and connecting millions by serving information to its users. Thus, the growing concept of technology and innovation entrepreneurship has led to a new era of business leadership called Digital Entrepreneurship. Today Digital Entrepreneurs conduct all their business activities online right from dealing with the customer, client, supplier, strategic partners and others have digital products and services which do not need a physical infrastructure like warehousing and physical distribution by fulfilling all a cyber obligations to secure their businesses.

Arguably, this study attempts at examining the digital entrepreneurship in extant literature identified several firm level terms as major determinants used in the study. Some of the important and consistently used terms in the literature include digital enterprise, startups, scaleups, digital technologies, innovation firms that are usually used as support for the study.

## Theoretical Framework and Discussion:

### Digital Enterprise

Digital Enterprise is a firm using Information Communication Technology (ICT) as a platform like viz., digital infrastructure and ecosystem, digital transaction and all other digital wares to create a community of its users interface to promote products and services and to create customers via, digital media means. Digital enterprises are also called as High-tech firms.

Digital enterprise is a concept that has changed and is changing the way of doing business / from the exchange of products and making payment to the process customer engagement, delivery of service, customer relationship management is all done virtually.

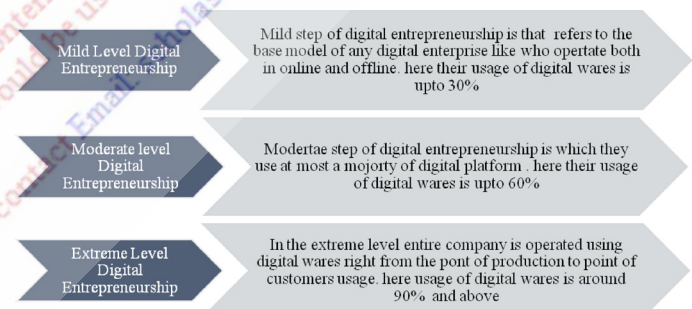
## Major Characteristics of Digital Enterprise:

1. Digitization of Process and Platform
2. Digital Nature of Goods and services (Not Necessarily)
3. Digital Selling
4. Digital Marketing
5. Digital Customer relationship management - engage with customer's online, increase customer conversion and loyalty

## Digital Entrepreneur & Entrepreneurship

Digital Entrepreneur is a person who runs his business activities using digital platform, virtually and from the process of manufacturing to meet the end customers this is all by the support of Information Communication Technology and other digital wares. It is also said that the business activities can be done either by help of supportive technical firms.

## Typology of Digital Entrepreneurship



## Typology of Digital Enterprise

Here the classification of digital ventures as based on the emerging start-ups that are on the basis of B2B, B2C, B2G and even C2C with a makeover by me with reference to A.T Kearney Analysis in (Russia beyond the Headlines)



### Services Organization Platforms

- e-Retail
- e-Transportation
- e-Health
- e-Learning
- e-Finance
- e-Travel
- Communication and Social media platforms
- Content (videos, music and gaming)
- Software as a service
- Infrastructure as a service

### Other Platforms Trending

- Market Research Companies
- Digital Media marketing and publicity platforms
- Business Analytics / Data Science Platforms

## Why Digital Entrepreneurship Matters?

Well, looking at the growing importance of ICT, there are many firms that are created every now and then either by new ideas and innovative technologies or by replicating others businesses creating millions of opportunities in employment, skill development, budding the new entrepreneurs and other such. Here the concept digital entrepreneurship is a bit fuzzier, when it comes to future of business leadership and revolutionary transformation in the digital economy. Digitization is playing a major role and has helped many windup businesses to see the light of success. Many digital organizations have transformed the way of doing business with trending platforms that are entering this scenario day by day and also has eased the procedures, formalities, protocols to start and run new ventures both on the virtual and physical environments. And the current situation is a signal towards the awareness, Businesses which lack to adopt the digital technologies and innovation will face severe drawbacks to survive for the long run. And, the firms using various digital wares and process for conducting business activities will see themselves as a change making organization in future.

## Opportunities of Digital Entrepreneurship

### 1. Create New Market Opportunity

Considering Digital enterprises that in 2009 there were 0.9 billion products in cooperating an IoT design, by 2020 estimates show the number of IoT devices should surge the approximately 30 billion and companies like Amazon and Facebook worth billion net worth which are greater than the companies that are of a century old and 7.3 billion people will be actively using these technologies and apps. Opportunity is also in the sense of developing new budding entrepreneurs to be part of this business transformation.

### 2. Technological Innovation Acceptance rates

Currently, only 22% organization sees the scope as digital businesses ready to leverage the big data being produced. The key is to remain dynamic, i.e., able to change quickly and update to stay ahead and thus produce a “digital deficit” for the competition and looking at the active users, who are adopting digital technology is rapidly increasing day by day.





### 3. Digital Offering

Opportunities in digital businesses come from new opportunities like the ones above as well as the optimization of existing business. Offerings include job opportunities, ideas to innovate, space for new development and importantly setting new trends by help of innovative products and services by creating demand in the market place.

### 4. Helps in monitoring and measuring the real time results

The process of activities are framed in order ranging from 1<sup>st</sup>, choosing the correct digital marketing measurement tools, 2<sup>nd</sup>, getting acquainted with digital marketing measurement formula, 3<sup>rd</sup>, utilizing the knowledge of digital marketing measurement model and 4<sup>th</sup>, considering all essential digital marketing metrics analytics.

### 5. Aegir digital wares reduces the barriers for communications

Developed by skills, they are encouraging interaction between the customers, peers and other major breadth of businesses. The new digital platforms for communication and engagement with customers and clients have become easier through new social media applications that are also used to build emotional contact towards the customers and bond with strong relationships. Examples like: LinkedIn, Facebook, Twitter are used in this process as well as for marketing company's products and services virtually

### 6. Greater Volume of Flexibility

Digital businesses can schedule their working hours and place without promising commitments. And will also respond to the customers and clients at any physical space need not hold any place for consulting. Today companies meeting market demands are constantly tweaking and improving via business processes and software technologies. Now entrepreneurs are looking for flexible, easy-to-use tools which offer consistent guidance across a suite of applications. That's where digital firm's adoption

platforms comes with better network ability and easy accessibility.

## Obstacles of Digital Entrepreneurship:

### 1. Security threats

Security is the biggest threat to a digital enterprise. Attacks on personal and company databases are increasing day by day. Recent Issue with social media giant Facebook where 50 million users data was harvested by a US based Analytics firm, named Cambridge Analytica on march 20 2018, the company lost 60 billion dollars in value due to data security and stock price fell as much as 6.2% in New York. So connection and detections of new wares are increasing piracy with lot of troubles. And with this Even there is opportunity for Security Firms building strong cryptography solutions.

### 2. Online Reviews may Destroy nor Shape your business

Negative reviews are harmful to business. Many Scaleup organizations face such challenges even today. It is all again with the company in term of providing service to the customer, any product. It is important for any organization to keep up their wisdom towards quality of products they sell and quality of service they provide. On the other side many businesses have led to growth and generates their revenue through online reviews with a positive reviews towards their business, today digital platforms enable businesses to keep up to the customers' expectations and industry standards. Recently a India based food chain named Subway for serving food with insect and finally they had shutdown their business it all happened because of online reviews.

### 3. No Dynamism nor Expansion

However, the possible increase of turnover is confronted with a potential need. If the companies do not consider their business for expansion they could lose a lot of market share in the business. Having a

dynamic cross in the business than replicating what others do is a symptom of losing the market share as many ventures being into digital businesses do not go for a makeover and even expansion this may lead to decline phase of your firm for example: Nokia which did not overcome the change said to be static in the mobile business and did not go for a makeover to bring in Smartphone which led to a severe loss and has to shutdown their mobile business. But somehow learning from their own mistakes they have re-entered to this business by adopting the innovation and change platform for future growth and sustainability.

#### 4. Meeting the expectation of customers in the digital age

In today's cross-cultural cosmopolitan environment, companies understanding the customer's needs, perceptions and their expectations are increasingly important. Holding the quality service and meeting the customers need is very difficult often many digital enterprises try to understand by undergoing the market research and also spend a hefty amount on it. Changing minds of customers in this digital age it is important for companies to make continuous innovation in their processes and platforms that are most possibly get attracted to the customers for example: Google spends million dollars every year on innovation, research and development of their business model to attract large number of audience.

#### 5. No corporate vision for digital transformation

Many companies miss the mark with digital transformation," said Forrester analyst Brendan Witcher. "They look to technology to create transformation, when in fact genuine, sustainable change has more to do with culture, organization, and evolving measurements of success than the tech itself." Inability to experiment quickly – should be more actionable before your competition does. It is important for any organisations to have digital transformation model to their business with developing successive tools and techniques and also to manage the complexity of thriving for the success. So companies must aim for bigger corporate vision

especially for extreme digital transformation of their businesses to gain lot of opportunities and control cash flow.

### Factors that have significant impact on the success of digital entrepreneurship that contributes to the reduce of failure rates

Before looking into critical success factors there are some important facts on failure rates of startups according to the top magazines and business reviews like Forbes, CB Insights, and Chicago Booth Review. It is said that 90% of the Startups fail to see the light of success that is nine out of ten. This is hard to believe, but a bleak truth that even few startups fail before they launch their business. And the reasons are numerous, out of those reviews the below important critical success factors are framed to reduce those failure rates and help the struggling digital startup to survive for long run and transform into a scaleup.

## Critical Success Factors of Digital Entrepreneurship:

Here are the key success factors based on their importance to the concept of digital entrepreneurship success and with the intention to transform startup into a fully fledged scaleup and also to reduce the failure rates of new digital ventures at early phase

#### 1. Role of Business Incubator

Important critical success factor of any start-ups and especially digital enterprises Business Incubators goal and role is to create a platform for the budding entrepreneurs by supporting them with a required time and attention. In addition to that they also create and provide mentorship bodies and advisory councils to improve their focus and discover new ideas and provide ample of successive suggestions for business growth and development.

#### 2. Digital Knowledge & Skills

Being a digital entrepreneur it is important to understand the issues and challenges facing other similar businesses involving innovation and to hold





some sought of skills for engaging into new possible use of digitization into practice that in some cases can be crucial in highly technology-enabled business for their success.

### 3. Innovation and Creativeness

It is a basic fact and long lasting solution for any digital venture to have sustainable business growth, is to be innovative, in today's world innovation and creativity has respect and is also been funded by many investors. And innovation and creativity is the only powerful tool to retain all functionality and stay strong against tough competitions.

### 4. Business Intelligence

Application of business intelligence systems will help the companies to sustain and reach greater possibilities by aging technologies that often eases the business at all cost and indulge such practises to overcome other disruptive technologies.

### 5. Holding Persistence

Holding persistence in the human quality and in the business will create the strong back bone to build and overcome challenges like being static / rigid in the organizational systems. Running a digital enterprise requires lot of persistence at every move due to low level of acceptance by the customers and clients because of new innovations and easy customer acceptances for the changes.

### 6. Team work results heavier than individuals effort

It is often proved that working in team can create more possibilities and also can result more success in a digital enterprise teamwork is strength that will help entrepreneurs out to face issues and challenges which are through collected ideas, skills and knowledge by turning it as an opportunity to be a trend setter than being a market player.

### 7. Risk Taking

Well known, that the risk factor in digital

entrepreneurship is comparatively moderate to traditional entrepreneurship which is high on risk, as it is where it requires lot of functional risks than calculated one. Many digital start-ups face this over a period of time even due excessive level of competition by the established firms. But managing risk such like operational, technical, administrative, financial risk are very important for the digital ventures.

### 8. Expertise in the Field of Operation is a Must

Having enough experience worked in the areas digital environment or technology-oriented occupation gives a better idea to be good at it. If not getting an advisory committee suggestion those have expertise in the similar field of operation is a must. Getting exposed to the environment that you are using currently is also important due to lack of experience many firms fail to overcome the operational efficiency.

### 9. Relationship Building

Maintain a strong connection with targeted population & clients who are in use or ability to accept your service or product digitally since the reason the large population will not be ready to accept the service that you provide may be they find it difficult to use or it may take time to update themselves. So attracting and targeting more connections and reach them to know your service by promotion and advertising that means more possibilities to your business operations successfully.

### 10. Ability to React on Time

Many digital start-ups fail due to lack of unwavering commitment towards the business they do. In case of the company is running out of loss it is entrepreneur's responsibility to create a flexible business operation either in the same field of operation or to diversify, but in any case most of the tech Start-up entrepreneurs find it difficult. They stay static and stick to particular business environment and do not react on time and by the time they do it. They run out of time. So being a



digital entrepreneur he/she must be able to create a change on time to survive for long run.

### 11. Psychological Factors

Sacrifice or willingness to sacrifice short-term to benefit in the long term might be personal or professional life, Optimism entrepreneurs need to be “irrationally” optimistic. As a business owner of a digital enterprise you will struggle through many days where everything seems like a failure Self Motivation is required if you are proactive, intentional, and driven if not, you won't make it as an entrepreneur this is important to every start-up founders.

### 12. Market Research

Many digital firms fail to conduct market research will less knowledge about this area. There are many firms that will help the new business ventures by giving them the clear understanding about the demand for their product / services and acceptance arte with market location for your business and such are been suggested. Big market analytics firms like example: AC Neilson, IMRD, Infiniti Research, Wydelabs Research are especially to optimize the business spending and also helps to focus on the other areas to grow.

## Conclusion

This paper is an attempt to figure out what are known about digital entrepreneurship, what are not known and finally what are the research issues of digital entrepreneurship. The literature review reveals that digital entrepreneurship is a prime research area. At present worldwide many researchers and academicians are trying to unlock the keys of success. The problem is everyone is trying to do it in their own way. There is no common framework available as of date. This paper proposes a framework for digital entrepreneurship research in the Industrial ear 4.0 which provides direction and pathway for new industrial revolution leadership research and might save time and energy of many researchers in this domain.

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The Editorial Board had used the ithenticate plagiarism [<http://www.ithenticate.com>] tool to check the originality and further affixed the similarity index which is 1% in this case (See Annexure-I). Thus the reviewers and editors are of view to find it suitable to publish in this Volume-10, Issue-3, July-Sep, 2018

**Annexure 1**

Manoeuvre of Electronic Entrepreneurial Ecosystem to Contemporary Indicator of Techno Business Leadership in Industry 4.0: Digital Entrepreneurship

**ORIGINALITY REPORT**

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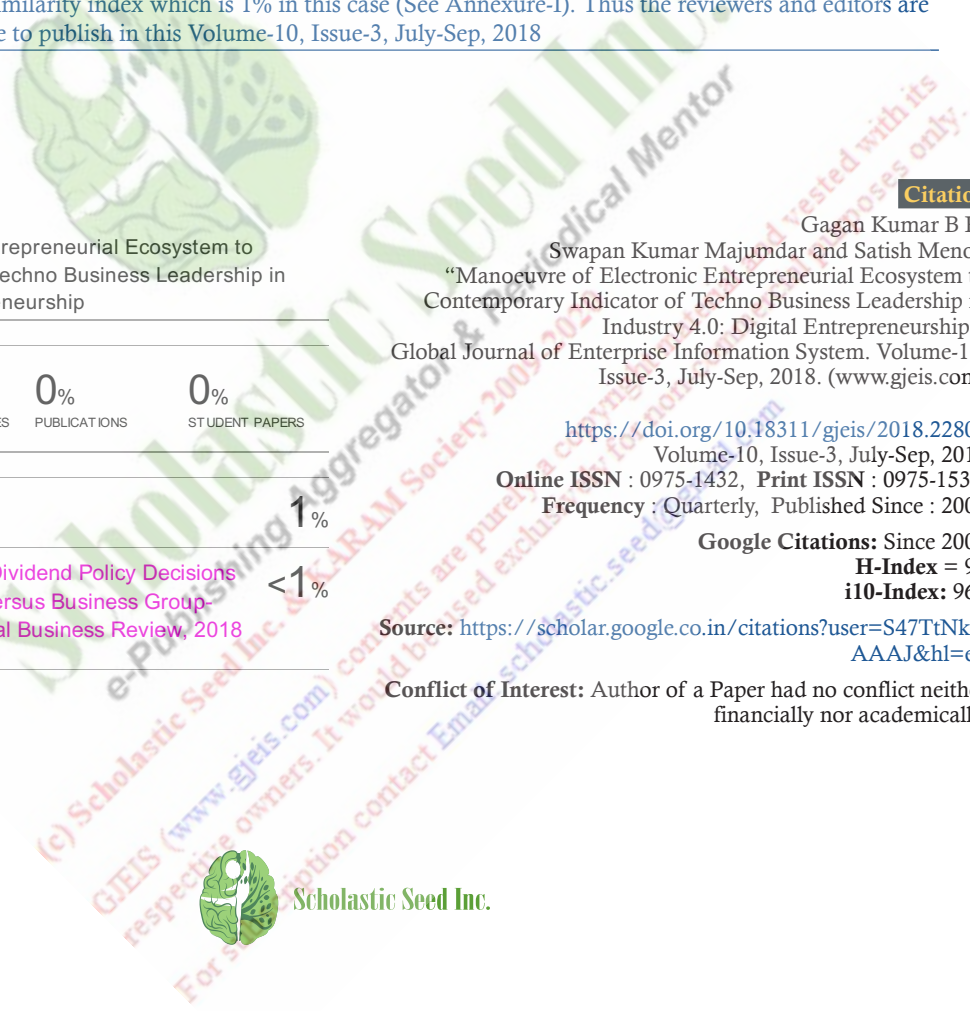
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## Exponential Organization: Paytm – A Review

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**ABSTRACT** The need for organizations to grow bigger and outperform the competitors is on the rise. The improvements in digital technology in the form of enhanced computing power, storage and bandwidth is fueling exponential growth of organizations. Many traditional business organizations are outperformed by new generation organizations. Exponential Organizations are the ones which grow bigger by passing the incremental or linear way traditional organizations grow. The paper uses the conceptual frameworks viz ExO attributes and 6D's of exponential organization to examine and understand the Paytm's growth and its evolution into an exponential organization. This paper explores how Paytm as an organization deployed exponential technology and exponential innovation to grow in short time.

**KEYWORDS** Exponential Organization | Paytm | Six D's | Digitization

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## 1. Introduction

Being an entrepreneur in the digitally connected world is different from what it was 20 years ago.

85% percent of Fortune 500 companies listed from 1950's have lost their way. Many companies who have performed very well in the past does not exist today. About 40% of the S&P companies are expected to be replaced by new generation companies in the next decade. The need for organizations to grow bigger outperform the competitors is on the rise. The improvements in digital technology in the form of enhanced computing power, storage and bandwidth is fueling exponential growth of organizations.

Exponential Organizations are the ones which grow bigger bypassing the incremental or linear way traditional organizations grow. These organizations leverage the ability of digital technologies to create exponential value (Bonchek, 2016). The digital technologies have provided platforms for business to connect, collaborate and communicate with people. This paper explores how Paytm as an organization deployed technology and innovation to grow exponentially.

## 2. Conceptual Frameworks of Exponential Organization

The Exponential Organization as concept was proposed in 2008 by Singularity University, with the mission of helping a person or a company positively impact the lives of a billion people (Salim Ismail, 2014). The organization which has shown 10X (10 times) performance increase than their industry peers are considered as "exponentials". Exponential organizations make use of the abundant information available with the help of technology for accessing or sharing work better. The exponential organizations are built upon Information Technologies which blends both the physical and digital world. The exponential organizations make use of the abundant external resources instead of owing and securing assets.

### 2.1 Definition

"An Exponential Organization (ExO) is one whose impact (or output) is disproportionately large—at least 10x larger—compared to its peers because of the use of new organizational techniques that leverage accelerating technologies"(Salim Ismail, 2014)

### 2.2 ExO Attributes

Salim Ismail and his co-researchers have studied around 100 companies which has exponentially grown in the last five years and identified the common traits across all the exponential organizations as shown below:

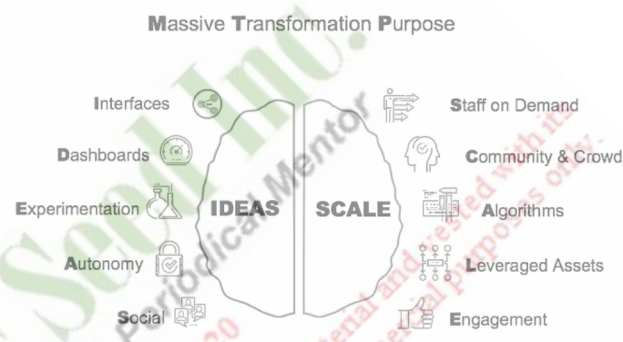


Figure 1: ExO Attributes

(Source: Exponential Organizations, Salim Ismail)

Organizations which adopts any four of the above mentioned 10 attributes can achieve exponential growth(Salim Ismail, 2014).

### 2.3 6D's of Exponential Organization

Diamandis and Kotler has conceived 6D's or six phase that an idea, a product, or a technology pass through a "chain reaction" to make a massive impact (Kotler, 2015). This growth cycle takes place in six key steps: Digitization, Deception, Disruption, Demonetization, Dematerialization, and Democratization. The first three D's helps to understand how technologies are changing the business models and environment. The next three D's are more potent to foster exponential growth. The final three 3D's can make companies obsolete and disrupt industries in short time. Inevitably organizations have to embrace technology adoption and change their linear approach towards growth.

This paper uses the above conceptual frameworks viz ExO attributes and 6D's of exponential organization to examine and understand the Paytm's growth and its evolution into an exponential organization.

### 3. Drivers of Exponential Growth

In 2017 globally, there are around five billion unique mobile phone subscribers and India alone is expected to add in excess of 200 million new subscribers in the next three years(GSMA, 2018). A study by US based agency Zenith predicts that China and India will have 1.3 billion and 530 million smartphone users in 2018 respectively (IANS, 2017). Overall Internet penetration in India as on December 2017 is around 35%, and is expected to increase due to the availability and affordability of smartphones(IMRB, 2018). The omnipresence of smartphones and internet connectivity are empowering innovation in how product and services offered on the web.

### 4. Paytm's Exponential Growth Mindset

The fintech space in India is in exponential growth trajectory. The digital payments space is experiencing a fast transformation worldwide and will grow four times by 2020(BCG & Google, 2016). The number of digital transactions will rise and the cash based transactions will decline by 2023 as predicted by BCG report on digital payments (BCG & Google, 2016). The digital payments sector has seen strong reception from users since 2016post demonetization of high value currency notes(PwC & Startupbootcamp, 2017).With over 200 million registered wallet users and 3 million daily transactions, Paytm is India's largest Wallet(Times of India, 2017). According to data by RBI, mobile wallets grew by 500% between the years 2014 and 2016; and the number of debit and credit card transactions grew by 25-50% in the same period. Mobile wallet companies have integrated digital services with PoS terminals for merchants so that users can do cashless transactions at grocery

shops, fuel stations, cabs, autos, physical stores etc. Mobile wallet firms have witnessed a surge in usage of their wallets and money loaded into them post Demonetization by the Government of India. Paytm wallet customers went up to 185 million post demonetization from 125 million wallet customers, and it has continued to grow (Wright, 2017).Many people argue that Paytm's exponential growth in recent times centers on the Government of India's demonetization policy. But what contributed to them is the exponential mindset on making something different and focus on 10X growth. They were prepared with the right technology, innovation and exponential mindset. Paytm's exponential mindset has helped them to become one among the biggest m-commerce platforms in India.

### 5. Paytm's Business Model

Paytm offers customers an e-wallet to store cash and make hassle free speedy payments. Paytm is a semi-closed payments instrument where customers can store money in their wallets and make payments to partner merchants(Ramani, 2015).Paytm wallet is used to make bill payments, transfer money, shop online, book tickets and many more. Paytm started as a mobile recharge app then expanded to mobile wallet, e-commerce market place and now as a Payments bank with license from RBI. As a payments bank Paytm offers digital savings and current accounts for customers and businesses respectively with banking features such as real-time passbooks, deposits, debit cards and online payment facilities.

### 6. Paytm as an Exponential Organizations (ExO):

Entrepreneurs wanted to grow exponentially by offering products and services which can be better, cheaper and more customized simultaneously(Mostert, 2016).Paytm has moved from being an e-wallet to a payments bank who offers multiple solutions to multiple businesses. The table below attempt to compare the ExO attributes with that of initiatives of Paytm in order to possibly establish Paytm as an exponential organization.





ExO Attributes	Paytm
<b>Massive Transformative Purpose (MTP):</b> Purpose of the organization to solve a major issue	Paytm wallet: To offer comprehensive payment services for customers and merchants. Paytm Payments Bank: To extend banking and financial services unserved and underserved Indians.
<b>Interfaces:</b> ExOs configure customized interfaces for their customers and other organizations	Revamped app and websites for customers and merchants.
<b>Dashboards:</b> ExOs use real-time metrics to control, measure and track their performance	Sell on Paytm Market Place: Easy and intuitive dashboard that simplifies day to day activities for merchants
<b>Experimentation:</b> ExOs implement rapid experimentation, very fast feedback loops, fast customer and product development cycles	Build – Measure – Learn Zoom Out Pivot – Product expands from a single feature to multiple features. Eg. Paytm expanded from mobile recharge to mobile wallet to e-commerce to payments bank
<b>Autonomy:</b> ExOs distribute authority down to the last level with flat organizational structure	Paytm has a very flat organizational structure
<b>Staff on demand:</b> ExOs instead of owing employees utilize the external resources	Hired more than 10,000 temporary employees for KYC compliance
<b>Community and crowd:</b> ExOs develop communities to connect, collaborate and work beyond organizational boundaries	Paytm – Build for India - ‘Open Source Project Incubator’ is launched to build and share open source projects worldwide on areas such as Financial Inclusion, Education and Life style etc. ‘Each One Teach One’ initiative invited volunteers to inform their neighbourhood merchants and consumers about the benefits of digital payments.
<b>Algorithms:</b> ExOs use algorithms to understand data and make better decisions	Paytm labs build powerful technologies with paytm’s real time data
<b>Engagement:</b> ExOs uses digital feedback, gamification and incentive prizes to engage markets.	Paytm constantly engages professionals and students through the incubator. Outstanding contributors to the open source project are awarded ‘Paytm Scholar’ certificates and few will also get an opportunity to join the Paytm team.

Table 1: Exponential characteristics of Paytm (Author’s compilation)  
(Source: Exponential Organizations, Salim Ismail)

## 7. Exponential Technology adopted by Paytm

Paytm succeeded by simplifying the user experience and managed to create value for the customer. Paytm made use of the existing technologies like Quick Response (QR) and integrated them on a single platform to offer multiple seamless solutions to the customer. Paytm has facilitated offline transactions with the help of the

unique QR code which can be read by the phone’s camera via paytm app and the money is transferred to the recipient. The use of this technology paved way for venturing into new sectors such as tolls, hospitals, pharmacies, diagnostic centers, canteens and parking among others. Paytm has strengthened their security features like logout, fingerprint scanner and password protection for the app. Paytm design and build solutions using the new age technologies

such as block chains to experiment with use cases, machine learning, augmented reality and virtual reality (Paytm Blog, 2017). Paytm's annualized gross transaction value (GTV) have increased fourfold from March 2017 to reach \$20 billion in February 2018 (Bhakta, 2018). The major impetus behind the increase in value comes from consumer spending for travel and movie ticketing. Paytm's rapid increase in transactions are the result of driving offline business. The below table gives us an idea about the existence of 6D's characteristics in Paytm in order to establish the qualification of an exponential organization.

decades have seen dramatic decrease in the cost of computing power, storage and bandwidth relative to their performance (John Hagel, 2013). The increase in affordability of smartphones, wireless networks and platforms to connect and interact with customers have provided opportunities for Paytm to innovate. Some of the innovative ideas comes from the R&D arm of Paytm i.e. Paytm Labs established in 2014 at Toronto. Paytm labs helps paytm to analyze the real time data and help them to provide safe, secure and customized services to the customers. In pursuit of innovation, Paytm launched 'Indian Open Source

Six D's	Characteristics	Example – Paytm
Digitization	Product transition from physical to digital	Paytm – virtual money or e-money
Deception	Period when exponential growth goes unnoticed.	Rise in smartphones and mobile internet usage fueled use of e-wallets like Paytm. Government's move of demonetizing higher denomination notes in India.
Disruption	Create new markets by disrupting the existing ones with technology and innovation.	Paytm has disrupted the payments industry with technology and innovation by venturing into new sectors tolls, hospitals, pharmacies, diagnostic centers, canteens and parking among others.
Demonetization	Removal of money from the equation.	Enabling merchants to accept money directly into their bank accounts using Paytm QR codes i.e. Accepting Offline payments
Dematerialization	Vanishing the goods and services themselves.	With one Paytm account you can do a lot - Shop, Pay Bills, Payments Bank, Mutual Funds, and Insurance etc.
Democratization	Goods and services becomes cheaper. Becomes accessible and available to everyone.	Mobile Internet becomes cheaper, Transaction cost becomes cheaper. Faster and reliable instant payments backed by UPI, Aadhar Based Payment Systems etc. Expansion of offline network to over 7 million merchants.

Table 2: Exponential Technologies adopted by Paytm

## 8. Exponential Innovation by Paytm

Advancements in digital technologies are driving exponential innovation. Blend of technology and exponential mindset creates opportunity for innovation (Bonchek, 2016). The disruptive potential of exponential technologies amplify when they coalesce with open platforms and ecosystems in innovative ways (John Hagel, 2013). Last two

Project Incubator' to provide opportunities for students and developers to collaborate, build and share open source projects worldwide (Anupam, 2017). Paytm has personalized user's experience and money transfer to Paytm payments bank, wallet and any bank account free of cost with its revamped app.





## 9. Conclusion

The phenomenon of Exponential organization is here to stay. Understating Exponential organizations, its drivers and business models will continue to inspire researchers across the world.

Understanding what and why of exponential organizations is of prime importance for the organizations and researchers. This work attempts to uncover some understanding of this phenomenon. This work also explored the underlying drivers, technologies and business models by analyzing Paytm as an exponential organization. The limitation of this study is that it is pivoted in one case of Paytm. There is a good scope for further research by looking into similar exponential organization in India and across the world to unravel the understanding of exponential organization.

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**GJEIS Prevent Plagiarism in Publication**

The Editorial Board had used the ithenticate plagiarism [<http://www.ithenticate.com>] tool to check the originality and further affixed the similarity index which is 2% in this case (See Annexure-I). Thus the reviewers and editors are of view to find it suitable to publish in this Volume-10, Issue-3, July-Sep, 2018

**Annexure I**

Exponential Organization: Paytm A Review

**ORIGINALITY REPORT**

<b>2%</b> SIMILARITY INDEX	<b>2%</b> INTERNET SOURCES	<b>1%</b> PUBLICATIONS	<b>1%</b> STUDENT PAPERS
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**PRIMARY SOURCES**

<b>1</b>	<a href="http://www.goodreads.com">www.goodreads.com</a> Internet Source	<b>2%</b>
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## Digital Entrepreneurship: Prospects and Challenges in Ghana

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### ABSTRACT

Ghana denoted to, as the Entrance to Africa is located in the West African sub region south of the equator. Digital Entrepreneurship is shifting the way Ghanaians do trade, collaborate and undertake dealings and accomplish their business. It offers the means by which operations can take advantage of the digital approach transmuted their establishments and in general economy into an understanding centered economy. There has been a quick advance of newfangled technologies deeds principal to the supposition that a dynamic tactic for improvement is the elevation of e-commerce in the midst of risk-taking activities. For instance, the e-commerce permits entrepreneurs to shrink expenses and rise market attention. However, the initial charge of website development might not be inexpensive as it may possibly necessitate software application development, hardware and upkeep cost. Online selling has widely spread as one of the utmost imperative groundbreaking systems used for promoting products and service on the internet. The value of online selling is actually popular everywhere in the world. Numerous companies and organizations today use online marketing to sell their products and services online

**KEYWORDS** Digital Entrepreneurship | Ghana | Economy

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The current day of recent people and globalization system acting essential part in all measures of life and businesses most especially in the entrepreneurship destination selling worldwide. E-commerce is the key means that influences the activities of entrepreneur's fulfillment because of its more than a few important fields used for distinctive determinations. E-commerce is very well-known in the midst of entrepreneurs for publicizing of products and services without a little boundaries governing its tasks.

Captivating benefits of a commerce chance is an ultimate step in the entrepreneurial procedure of the likely benefits that the internet would offer on behalf of them and similarly pay care to the requirements of their potential consumers.

Rising pattern of digital entrepreneurship prospect and challenges in Ghanaian context make it significant to know the reason behind it and its development impact in terms of jobs, revenue generation, output progression as well as its hurdles.

According to Eisenhardt (1989) stated that, "Where the target research objects is already new, an inductive strategy based on the observation of a given elements appears to be necessary." Certainly, we have also on a several case study technique in line directed toward the record involvement of businesspersons studied, now in excessive aspect.

The step of improvement of digital entrepreneurship offers increase to considerable changes in the marketplace and the affiliations among businesses, consumers and providers. The newfangled digital world or economy affects the manner in which businesses get formed and mature. The negative influences of internet safety issues affect trade. The leading delinquent with online selling in Ghana is the delinquent of vulnerabilities and deceitful deeds by crooks on internet. Challenges actuality faced by rural entrepreneurs unreliable

government strategies, illiteracy level among rural businesspersons. The anxiety of change however grips most rural businesspersons in the course depriving them of the right to advance on their business over using up-to-the-minute technology. Small, medium enterprises are dwindling to cope with the changes in the outside environs which has hampered the capability of their businesses to develop.

Speaking these challenges would contribute significantly to improving the penetration of digital entrepreneurship in the Ghanaian society and by this means link the digital gap. E-commerce can be advantageous to consumers and businesses if obstacles such as cost, products and services are enhanced. Policymakers need to publicize regulations that sustenance e-commerce entrepreneurship which can be recognized over a nationwide budget so that it draws external direct venture as an economic or poverty alleviation advantage. Entrepreneurs themselves have a duty to embrace team based entrepreneurial deeds. Digital businesspersons need to study that information technology that establish the ground rules of e-commerce are altering quickly. So, we endorse that their concepts need be self-motivated then adaptive to different environmental and high-tech circumstances. More of online ideas and abilities that drive assistance to the youth of Ghana generate works for themselves and develop businesses are needed.

## Digital Entrepreneurship: Prospects and challenges in Ghana

The current day of recent people and globalization system acting essential part in all measures of life and businesses most especially in the entrepreneurship destination selling worldwide. E-commerce is the key means that influences the activities of entrepreneur's fulfillment because of its more than a few important fields used for distinctive determinations. Digital businesspersons need to study that information technology that establish the





ground rules of e-commerce are altering quickly. So, we endorse that their concepts need be self-motivated then adaptive to different environmental and high-tech circumstances. Now credit cards, debit and many other forms of digital payment are available in Ghana but more education can still be done on this mobile money transactions as well as the commissions on transaction.

## Research Design:

Secondary data to analyzing vast array of information and review

## Statement of purpose:

- To analyze previous prospect and challenges of Digital Entrepreneurship in Ghana and its current status.
- The impact of Digital Entrepreneurship on Ghana's economy and businesses previously and the current status

## Introduction

In current years digital entrepreneurship has persist to be one of the most important growth in the globe of business. Essentially, digital business indicates to undertaking trade online bridging both trade to buyer and trade to trade range.

Also, the 'digital' element which (Parker et al. 2016) related to also stated that 'digital platforms' that complete competitions among producers as well as consumers and ease the transaction about services, products otherwise social money, allowingworthformationintended for all through the digital landscape.

The improvements in information and communication technology in sub Sahara Africa, are profoundly shifting the means trade is done. The new profit making revolution by proposing a reasonable and straight means to exchange data and purchase or sell goods or services, electronic business in now believe to grip the promise. In the year 2008 April, e-ZWICH smart card was established and since

then has been in the system but strive for decreasing the threaten which automated teller machine card robbery existed really high in some years ago (Haruna, 2012).

From the research of Anyimadu (2003), indicated that "We have become digital by default rather than considered intention". On the whole, this one is partially not on the statement, all these knowledge has come to us as distinct and commercially battled for, well projected handouts.

Digital trade networks in developing nations, in their case, proposes that it is not sufficient to just include computer, or the aspect of applications or praise investments in learning or in supporting entrepreneurship. But instead investigation the condition "closer to the ground" and search entirely the connections of arrangement and necessity out of which trade and industry increases. In the study of Moore (2003) in Ghana, the foundation of the digital trade network was productive with strong learned entrepreneurs which many of them had studied and stayed out of the country for a while, and willingly want to come back to Ghana after the founding of elect representative for the first time in so many years.

## Digital Entrepreneurship

The term digital entrepreneurship has appears to carry exclusively obscure-established meaning. The passage from the report on strategic policy (p.1) seems in the direction ofexclusive effort to delineate technology entrepreneurship till present (The European Commission 2015):

"Digital entrepreneurship embraces all new ventures and the transformation of existing businesses that drive economic and/or social value by creating and using novel digital technologies. Digital enterprises are characterized by a high intensity of utilization of novel digital technologies (particularly social, big data, mobile and cloud solutions) to improve business operations, invent new business

models, sharpen business intelligence, and engage with customers and stakeholders. They create the jobs and growth opportunities of the future.”

Digital entrepreneurship can be debatably in a sense that it is the extreme important one demonstration of private enterprise and carry accordingly belongs into the system of trade itself. In this concern, it seems technology private persons have had an insightful influence on entirely ahead in position economies. An instance from the Australian Innovation System Report (2015, p. 46) stated that:

“The values of entrepreneurial organizations have mostly been heralded for employment generation and commercialization of new inventions. This is all changing with the rise of the knowledge and digital economy, where entrepreneurs and the organizations they create are uniquely positioned to exploit new opportunities, adopt new production methods and technologies, and reshape competition by penetrating new markets.”

Practically, it is to come to an end that digital businesspersons drive have a thoughtful effect continually on the improvement of internet and digital state of a country. From the study of (Li, 2007) the word e-business theory was initially make known to and well explained by IBM that, “The transformation of key business processes through the use of Internet technologies”. The shift of digital business from the middle of 1990 is well known, in the initial era, grassroots of digital trade as it was denote, pave the way of an extensive implementation and wide distribution of the Internet for profit making intentions. Technologies like electronic data interchange in the course of that era were taken on to assist the progress of business to business activities. From the middle of 1990 to the beginning of 2000 became the additional era which extended and was regarded as an extensive implementation and wide distribution of the Internet for profit making intentions.

In this same era, potentials of the Internet has gain mass confidence in unrestricted businesses approval and cost decrease was used for, (Porter, 2001) as well as increasing in buyer advantage and income recognition; all these followed though by the expenditure of essential administration carried out as venture capitalist and leaders by chance overstated the market proportions for dot.com companies to entice more prospective shareholder.

In time, these management carry out in the third era was regarded as by the unbelievable dot.com fall according to (LI, 2007; Howcroft, 2001; Howcroft et al., 2001). During the fourth part era, investors had to replicate on the severe certainty and the causes behind the amazing electronic business disasters and which business carry out fundamentals can put them to where they were; from that time, numerous of the companies that endured have turn out to be profitable ensuing firm regaining market of the dot.com (Li, 2007).

Ndemo & Weiss (2016), in the book of record about digital entrepreneurship revolt in Africa, while it's defined how it has developed in terms of redundancy rates, absence of technological structure, poverty and different cultural understanding of entrepreneurialism and great courage. The ICT revolt is a worldwide and competing occurrence.

Electronic business is the main characteristic of the internet that leads, also known as e-business. It was an essential resources when the Internet got developed which organized consumers exchanged data. At present, this data exchange is gradually being inclusive in economic importance by changing it as a result that assists exchange of products and services. Africa surpassed development of business in the 1998 and 1999 than any of the continent. And for some time now, the practice of Internet in Africa is still improving as the learned computer person's quantity also increase according to (Mbogo, 2000).





Previous investigation have shown that women recognize Internet e readiness. Quagraine&Ariwa, (2016) stated that this awareness have proven women entrepreneurs in micro firms, e readiness is progressing method as many of these women entrepreneurs are not to practice Internet for their business deeds.

## The Economy of Ghana

Cocoa economy has been the name given to Ghana's economy because of its huge production of cocoa. The impact is widely spread that Ghana is rich and successful thanks to its supremacy of the global provision of cocoa and the extraordinary amount which the crop have always been attracting in those previous years. During all those years, the government income and its richest was coming from cocoa entirely but the career of most of the people in Ghana was not farming cocoa as it must seems neither were they revel in an expensive living. Aside cocoa that Ghana was producing, there were other minerals like gold, bauxite, manganese and gold (Birmingham, 1957). After the first 25 years of independence, World Bank was using the economy of Ghana as the test circumstance for the developing policies in the sub Saharan Africa. After falling frighteningly far into the deep hole, gross domestic products (GDP) per capita in actual positions was twenty percent more than where Ghana used to be at independence in the 1957. The then president of Ghana and the International Monetary Fund (IMF) put into conclusion an Economic Recovery Program (ERP) which gave the look in some achievement of raising productivity, and the costs of ERP in respect of standard of living for some groups that was at risk became known (Hug, 1989).

The virtual offerings of domestic against foreign variables to the economy of Ghana drop before 1983, and also according to Hug's despite his robust examination "The merits of the current strategy for development, remain mired in controversy"(Gyimah-Boadi, 1991).

Subsequently, the economy of Ghana is not a self-governing system, but is surrounded in a back ground of foreign business, in as much as the capacity does not search away from irregular remarks. The capacity views the trade and industry actors as realistic persons, ambitious by price motivations. And Ghana's economy articulates a questionable credence in the crafty actor (Beuving & Aryeetey, 2011).

## Objective of the study

As a developing paradox, digital entrepreneurship, merges and includes investors from diverse group and economic parts. This study posits that a complete and unifying method is required. For instance, advance in the quantity of digital businesspersons depend on the digital trade skills of people and also the systemic backing over and done with transformative procedure and plans from the governments, corporate/ industry, training and learning organizations and the community as well. In this respect, this paper purposes to analyze previous challenges of digital entrepreneurship in Ghana and its current status, as well as what digital entrepreneurship offered Ghana economy and its multiple disciplinary perspectives (digital entrepreneurs, suppliers and customers).

## Methodology

An empirical researching on Digital Entrepreneurship prospect and challenges has become a need. In the situation, the extent of qualitative, quantitative and mixed methodology study is substantial. The current competing society of digital business is in a state of constant change and businesses challenges must be resolve quickly to retain workable in this competitive world. Constant technological improvement and value making at micro digital business balance has not been an issue of choice but persistence. This study intend to use secondary data which will reveal a thorough study topic and the questions related to the topic.

## Prospect of Digital Entrepreneurship

The expectations e-ZWICH payment structure in Ghana are unlimited between end users and non-end users, for that reason, action must be done by banks, shops, all shareholders and other monetary organizations make sure that these expectations are well detailed to help the achievement of the dream of the age of cashless community in Ghana (Haruna, 2012).

The quick acceptance of mobile presently is a prospect for improving the economy, possibly gathering all the active path of economic growth. In that case, mobiles are a favorable technological innovation for the development of the economy. On the other hand, seek of mobile broadband is not until now a regular tool globally, a greater act of entering into a nation would influence to a competing gain by adopting the prospects for entrepreneurship, but decreasing of its fellow citizen (Alderete, 2015).

## Challenges in Ghana

From the report of modern Ghana, written by Owusu (2007), listed some challenges that Ghanaians were facing with respect to electronic payment system in Ghana. It stated that limited acceptance points was one of the problems Ghana was facing during that year. Also, high transaction costs, limited of information and advertisement because there was just a couple of information and awareness to card users, retail traders and those offering the services. There were few shopping centers and other stores which they were accepting electronic payment. Lack of system reliability was another problem on its own as well as customer care service was also limited in Ghana.

On the other hand, with all the supposed advantage of digital business, the adoption was delayed by so many restrictions or hurdles. The main hurdles were assumed to be the difficulties of protection and accepting the technology itself, absence of skilled manpower, fear with respect to its

procedures and guidelines, and high changing costs (Khatibi et al., 2003). From the research of Jones et al., (2003) indicated that the main problems of digital trade improvement were the following like time, inadequate use by consumers, financial means, suppliers and also absence of IT expertise. If these problems are well examined by size, inadequate time and financial resources were identified as the major factors limiting the haste of digital business improvement of small and micro firms. In terms of differences the review recognized that the problems to speed of digital business improvement have not as much as impact in medium and big enterprises. This suppose that small and micro enterprises are finding it challenging to improve their digital business technologies with their inadequate levels of assets and abilities.

Digital business expects will have to devote more concentration on exploring the outside environment which is big and also build plan of action to encounter any challenges that comes unexpected. Effah & Light (2009) study reveals that it is huge monetary flux rather which headed the fall of dot.com in Ghana:

“Due to the lack of credit card system or online payment facilities, BuyGhana dealt were two categories of customers: account customers who deposited money with the company in advance and had their online account credited and then debited after online purchases; and pat-on-delivery customers who would order online and pay after delivery”.

Similarly, Haruna (2012) also reveal that, problems like connection failure, numerous interruption of machines, and lengthy queues irrespective of importance of order and slow manner of service delivery. The service suppliers also identified problems such as network linkage challenges, intolerant customers, flaws with respect to customers' cards in line for inappropriate supervision, and low profits to the banks as to their work.





The research done on a comparative, challenges fronting Small Medium Enterprises between Ghana and Botswana, it was identified that ICT facilities procuring is high cost, with its maintenance and running costs. Numerous power source interruption, ICT language facilities was also a problem, infrastructure for communication was also very poor leading to extra costs of gain access to ICT facilities, absence of technical knowledge in assimilation ICT in SMEs, weak or legal content in digital business and weak security problems in doing digital business (Asare et al., 2012).

## Impact of Digital Entrepreneurship

Digital businesses as an advantageous to firms in general, but were unclear as to how it would be advantage to their firm operations. The supposed advantages are: better image in terms of competitiveness, procedure that are efficient, and information system which is better (Khatibi et al., 2003).

Findings shows that Small Medium Enterprise's intend to follow digital business tactics with buyer service and buyer base growth constant with their "Bricks-and-mortar competitive strategies and build e-commerce operations consistent by means of their e-commerce strategies". The tactics for these digital business also benefit to the sales growth of small medium enterprises' as well as profit growth. Hence, digital business tactics connected with acquiring management is the minimum favored substitute and does not influence earnings (Karagozoglu&Lindell, 2014).

Agreeing to Kristianto et al., (2012), "The competitiveness of a manufacturing firm is reflected by measuring how fast a firm to increase its technology adoption through appropriate leadership role, alignment between strategic and technical leadership role and managerial directions on the manufacturing capability and resources". Another beneficial of digital business entrenching leadership part into the adoption of technology is that, forming

tactical flexibility includes tactical leadership, active aptitudes, human resource, industrial means and technology data for evading contrary to the surrounding doubt for the period of emergency, this arrangement can judge tactics profit of the business firm.

Another benefit from the practice of social media and big data in trade model invention is predominantly motivated by tactics and invention related inner intentions. Outside digital instability also plays part. Trade model invention pushed through means of social media and also big data takes (Bouwman et al., 2018) certain influence on firm act. And the analysis from the study proves that Business model is pushed by big data instead of shows that business model is pushed by social media.

## Results

Now credit cards, debit and many other forms of digital payment are available in Ghana but more education can still be done on this mobile money transactions as well as the commissions on transaction. According to Bank of Ghana, currently the nation's online payment and other transactions systems is made up of the following; GIS which is Ghana Interbank Settlement system, which in 2002 became actual time gross system of settlement. The e-ZWICH payment system, cheque Codeline clearing, for digital direct credits and debits as Ghana Automated Clearing House in the year 2010. The switch for ATM from gh-linkTM, internet banking and mobile phone banking has been experience higher development as well as small valued financial payment systems like credit cards, debit cards, prepaid cards. Therefore the subsequent year in continuation have a need of competencies that are not existing now, from the rage of dependable digital power, to reasonably priced for a high bandwidth inter link within Ghana and that of other part of the world.

In all, service providers, entrepreneurs, buyers should take benefit and make use of digital business

to develop their market share, brands and to also make purchasing stress free for their buyers and prospect buyers as well. To add to this, expects in monetary and monitoring in Ghana is limited in terms of leadership of digital entrepreneurship or business.

## Conclusion

Governments from the developing nations should motivate small medium enterprises not just to accept digital business technologies but should also be responsible for an advantageous environments to remain in dot.com to sustain and develop. The next years ahead are going to be the time for massive payment online in most industries of Ghana. Investing in the implementation of digital business infrastructure for organizations that deal in products like fund transfers, loans, utilities transactions bank accounts and financial services, as well as all third party transactions in expectancy of payment tool that can be distributed to all Ghanaians irrespective of their location or status of the finance.

Local firms will have to embrace payment digitally and solution information technology suppliers of all digital products must design and organize how to successfully provide, educate and retain these systems for all local firms and the upcoming entrepreneurs could use this as their business model as well.

The research conducted between Botswana and Ghana by Asare (2012) suggested the way forward for the two countries to adopt out of the challenges SMEs were facing and that other Africa nations can also benefit from these suggestions. And that, Ghana has numerous financial assistance for small businesses, but eventually all of them come from financial institutions with charges of high commissions and rate of interest. To this, governmental and individual sectors must come into agreement to create a joint group to motivate SMEs to take up trainings and conference, workshops, and seminars for an insignificant cost. This way, it will address some workforces on the job market shortfall of mechanical

knowledge. Structure for telecommunication should also enhanced excessively in other to reduce the fees of linking to the internet and by remaining online for trade drives. Educational institutions, together with governmental and individual sectors can create associations to design frameworks that would talk of some of the legitimate problems of digital business. This may possibly be a key enhancement to SMEs who are so uncertain about conducting business to business and business to customer digital trade transactions. Co-operative institutions can also form up by SMEs themselves so that they can credit funds at a minimum or zero commission or rate of interest to themselves.

Digital entrepreneurship has become important to policy makers because they can effectively use electronic business putting into practice models which can be some of the export companies to train and guide other export companies who are yet to implement digital business. In other sense, it could be the outside pressure for those who have already implement electronic business to do so but not in the sense of high tactics worth on it. It is for this reason that a good suggestions that persons using higher digital business implementation rates to also create a higher tactics worth on digital entrepreneurship (Hinson & Sorensen, 2006).

Therefore more investigation is needed to create awareness into developing nations SME digital entrepreneurship, post implantations challenges in common and dot,com fall in precise.

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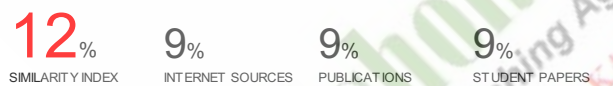
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**Annexure 1**

Digital Entrepreneurship

ORIGINALITY REPORT



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<b>14</b>	<b>Fanny Adams Quagraine, Ezendu Ariwa. "Effective deployment of digital technologies for business enterprise in Sub-Sahara Africa: Implications for women entrepreneurs e-readiness for Internet usage in Ghana?", 2016 Sixth International Conference on Innovative Computing Technology (INTECH), 2016</b> Publication	<b>&lt;1%</b>
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18	Submitted to Central Queensland University Student Paper	<1 %	24	Harry Bouwman, Shahrokh Nikou, Francisco J. Molina-Castillo, Mark de Reuver. "The impact of digitalization on business models", Digital Policy, Regulation and Governance, 2018 Publication	<1 %
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## Risk Mitigation through Target Cost of Capital - A Prescriptive Analytic Quadratic Programming Model For Start-Ups

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**EDITORIAL BOARD EXCERPT** At the starting Time of Submission (ToS) submitted paper had a 07% plagiarism which is an acknowledged fraction for publication. The editorial viewpoint is of an inspection that article had a consecutive close watch by the blind reviewer's which at later stages had been put right and amended by an author (gajapathy) in a variety of phases as and when essential to do therefore. The reviewer's had in a beginning stages talk about with minor revision with a following statement which at a small period rationalized by an authors. The comments related to this document are enormously observable related to **Risk Mitigation through Target Cost of Capital** both subject-wise and research wise by the reviewers during appraisal and further at blind review process too. The author addresses the commonest but cautious challenge to safeguard the welfare of the startups is lying during the incubation stage. His argument that in the pipeline the progress should be evolved to be sustainable so that the entrepreneur and the co-entrepreneurs should disseminate the legacy is well plotted. The Prescriptive Modeling is adding novelty to the whole approach. Later it can be authenticated with further literature if the author wishes to publish more of such papers in the given area. All the comments had been collective at a mixture of dates by the authors' in due course of time and same had been built-in by the author in multiplication. By and large all the editorial and reviewer's comments had been integrated in a paper at the end and further the manuscript had been earmarked and decided under "**Research Thought**" category as its highlights and emphasize the work in relation to use of Risk Mitigation through Target Cost of Capital- A Prescriptive Analytic Quadratic Programming Model For Start-Ups.

**ABSTRACT** The tie-break between risk and return is a long-term challenge for the risk practitioners. Optimizing between cost of capital and risk proxied by leverages viz., operating and financial leverages is the objective of this model building exercise. The leverages are providing incentives when the cost to the owners and to other stake-holders in terms of risk is pungent. This issue is very rampant among the start-up digipreneurs. To strike a tie between cost of capital, for which Weighted Average Cost of Capital (WACC) is substituted, and leverages, the Quadratic Programming (QP) tool has been utilized. In QP, single linear convex WACC constraint function is strategised with a maximum WACC when the objective quadratic function is utilized with an orientation of maximization. The purpose of this research paper is to bring out a risk mitigation model with high leverage in a given cost of capital. An application of this model will provide a decision support in the areas of determining capital structure, cost of capital, indifference point, risk assumption, and management of cost between leverages. This Model also helps to suggest strategies using sensitivity analytics as extension

**KEYWORDS** Quadratic Programming | WACC | Leverage | Capital Structure

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## Introduction

The commonest but cautious challenge to safeguard the welfare of the startups is lying during the incubation stage. In the pipeline the progress should be evolved to be sustainable so that the entrepreneur and the co-entrepreneurs should disseminate the legacy. Learning from the falling should be strengthened which is necessary condition to the entrepreneurial economy. India's entrepreneurial economic turn along with demographic dividend is sure to harvest good return ahead of the competitive economies.

## Review of Literature

The optimum capital structure is defined as the capital structure or combination of debt and equity that leads to the maximum value of the firm (M Y Khan & P K Jain, 2013). Hence, the foremost importance is to identify the costs themselves. If the investigator skips any cost item, that may lead to serious impairment of any decision making model. "It is important to highlight just what our cost functions capture. The cost functions, of course, incorporate the various possible costs of debt (e.g., expected bankruptcy costs, "debt overhang" cost that might discourage a firm from initiating a profitable project because it currently has too much debt, etc.)" (Jules Van Binsbergen J, Graham J R, & Yang J, 2011). For example, excess dependence on debt may lead to possible extinction of the firm itself. "Direct bankruptcy costs can be staggering and may be a disincentive to debt financing. Such costs are referred to as *bankruptcy tax*" (Stephen Ross, Randolph Westerfield, & Bradford Jordan, 2008). Then, "How can we correctly evaluate capital and its market structure for individual projects and companies in general?" (Vigen Minasyan, 2013). Of course, debt capital holds good and bad. "There are disadvantages of debt; and excessive use of debt may cause a rise in the cost of capital owing to the increased financial risk and may reduce the value of the firm" (Schall LD & CW Haley, 1977). However, "the advantage of debt as a cheaper source

of finance is exactly offset by the increased equity capitalization rate (M Y Khan & P K Jain, 2013). It is obvious that "the debt trades off the advantage of debt financing (interest tax shields) against the costs of financial distress (consisting of higher interest rates and bankruptcy costs) (M Y Khan & P K Jain, 2013).

## Objectives

To develop a Quadratic Programming (QP) model with an objective of minimising the Leverages of a start-up subject to the constraint of maximum Weighted Average Cost of Capital (WACC).

## Research Methods

One of the drawbacks of linear programming is in its linearity assumption, primarily in the objective function. This forces us to scout with a constant marginal rate of substitution and constant return to scale. However, this assumption is at variance with the economists' preference postulates. This paper presents an application of quadratic programming in corporate particularly in capital structure planning formulations. QP envelopes a variety of applications—'portfolio selection, monopolists' profit maximization, inequality constrained least-squares estimation, spatial equilibrium analysis, goal programming with quadratic preferences, and optimal decision rules' (Frederick S. Hillier, Gerald J. Lieberman, Bodhibrata Nag, & Preetam Basu, 2012). In the functional management areas, 'QP is applicable to problems in economics, such as demand-supply response and enterprise selection. In finance, it is used in portfolio analysis; in agriculture, in crop selection' (Bruce A McCar, Herbert Moskowitz, & Hartley Furtan, 1977). Here, the QP is posted to optimize the risk emanating from changes in leverages with respect to cost of capital. 'Despite all this research, a consensus view on optimal capital structure has yet to emerge. In many cases it is difficult to make a specific recommendation about how much debt a given company should use' (Jules Van Binsbergen J, Graham J R, & Yang J, 2011).

## Rationale behind the Model

Debt plays a crucial role in growth of a firm... The periodic interest payments reduce managerial discretion over internal funds (G Jagan Mohan & Puja Padhi, 2018). The cost of financing is affected when the levered firms are gearing up its profit further through leverage. This increases the exposure for the digipreneurs and deters sustainability as well as continuity of business. Hence, the question is how and how far to gear up the leverage, given target cost of capital. 'The benefit functions are downward sloping reflecting that the incremental value of debt declines as more debt is used. The cost functions are upward sloping, reflecting the rising costs that occur as a firm increases its use of debt. The cost functions vary by firm to reflect the firm's characteristics such as asset collateral and redeployability, asset size, the book-to-market ratio, profitability, and whether the firm pays dividends' (Jules Van Binsbergen J, Graham J R, & Yang J, 2011). If the leverage is increased for equity-holders given cost of capital (whether marginal cost of capital or Weighted Average Cost of Capital (WACC)), it is justified that the risk is mitigated due to administered cost of capital. However, in this model, the WACC is taken to have long-term solution. The sustainability shall be established when one "manage to long-term, not to short-term... The revenue and shareholder value a firm create are an imperfect proxy for the value it creates for consumers and society". (*emphasis added*) (Kenneth Frazier, 2018). However, any risk investigator cannot decouple the risk and return. The Quadratic Programming, here, is called for optimizing task either using QP algorithm or Modified Simplex Method algorithm under the Karush-Kuhn-Tucker (KKT) conditions (Frederick S. Hillier, Gerald J. Lieberman, Bodhibrata Nag, & Preetam Basu, 2012). In this linearly constrained optimization study the objective function is operating and financial leverages in the concave fashion when the single constraint function is linear.

The prerequisite for the model in study is enumerated as follows:

- a. The capital structure is formed only through two sources viz., perpetual riskless debt and ordinary shares.
- b. This model castaway the corporate taxes.
- c. It is assumed that the Dividend Pay-out Ratio is 100.
- d. The total financing is constant.
- e. EBIT is assumed to be constant.
- f. Going concern philosophy is adopted. The life of the firm is perpetual.
- g. Weighted Average Cost of Capital based on Market Value Weights is used in linear Convex constraints for a sustainable decisions. If it is for short-term decision, the WACC may be substituted by Marginal Weights.
- h. Overall cost of capital is assumed to be EBIT/TOTAL VALUE OF THE FIRM (%)
- i. Total value of the firm = market value of the equity and market value of the debt. (M Y Khan & P K Jain, 2013)

## A Prescriptive Analytic Quadratic Programming Model

The following is exhibiting a standard QP model which is to be applied in achieving risk reduction with WACC constraint.

Maximise

$$f(x) = cx - \frac{1}{2}x^T Qx$$

Subject to

$$Ax \leq b \text{ and } x_j \geq 0$$

Where the row vector is  $c$ , and  $x$  and  $b$  are column vectors. When subscript denotes transpose,  $Q$  and  $A$  stands for matrices. The  $q_{ij}$  (elements of  $Q$ ) are given constants such that  $q_{ij} = q_{ji}$  (which is the reason for the factor of  $\frac{1}{2}$  in the objective function). By performing the indicated vector and matrix multiplications, the objective function then is



expressed in terms of these  $q_{ij}$  and  $c_j$  (elements of C), and the variables as follows (Frederick S. Hillier, Gerald J. Lieberman, Bodhibrata Nag, & Preetam Basu, 2012):

$$f(x) = cx - \frac{1}{2}x^T Qx$$

$$= \sum_{j=1}^n c_j x_j - \frac{1}{2} \sum_{i=1}^n \sum_{j=1}^n q_{ij} x_i x_j$$

The objective function is to maximise the operating and financial leverages whose function is notated as follows:

$$\text{Degree of operating leverage}^1 = \frac{\text{Percentage change in EBIT}}{\text{Percentage change in Sales}}$$

$$\text{Degree of financial leverage}^2 = \frac{\text{Percentage change in EPS}}{\text{Percentage change in EBIT}}$$

The sales, EBIT (Earnings Before Interest and Tax) and EPS (Earnings Per Share) are changing in a non-linearly manner due to, for example, price elasticity of demand, change in economic condition, change in tastes and preferences, change in rate of interest, etc. The cost of capital and the operating and financial leverages are changing depending on the debt-equity ratio. If the debt-equity ratio is increased, the cost is also increasing and hence the leverage. But the cost of debt influences the operating leverage and financial leverage whose behavior is non-linearly quadratic. However, the cost of capital is also non-linear though in this study it is kept linear for analytic purposes. Therefore, the objective function may be written as

Maximize

$$f(OL, FL) = (OL)(FL) = \frac{\text{CONTRIBUTION}}{\text{EBIT} - I}$$

1 DOL is 'the firm's ability to use fixed operating costs to magnify the effects of changes in sales on its earnings before interest and taxes' (M Y Khan & P K Jain, 2013).

2 DFL is 'the firm's ability to use fixed financial charges to magnify the effects of changes in EBIT on EPS' (M Y Khan & P K Jain, 2013)

Subject To

$$(OL_c) + (FL_c) \leq b \quad (\text{WACC constraint})$$

Where the  $(OL_c)$  and  $(FL_c)$  are cost associated to operating leverage (OL) and financial leverage (FL) respectively. Contribution is sales adjusted against variable cost and EPS (Earnings Per Share) is earnings available to every shareholder or EBIT minus interest payments (I).

## Conclusion

The outcome would be the variables of OL and FL post-iterations through KKT conditions or Modified Simplex Algorithms. In other words, the extent of maximal OL and FL will be determined with the expected WACC constraint. This model will suggest solutions in areas of dilemma determining capital structure, cost of capital, indifference point, risk assumption, and management of cost between leverages. As the extension of utility of this model, this also helps to suggest strategies using sensitivity analytics.

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The Editorial Board had used the ithenticate plagiarism [http://www.ithenticate.com] tool to check the originality and further affixed the similarity index which is 7% in this case (See Annexure-I). Thus the reviewers and editors are of view to find it suitable to publish in this Volume-10, Issue-3, July-Sep, 2018

**RISK MITIGATION THROUGH TARGET COST OF CAPITAL - A PRISCRPTIVE ANALYTIC QUADRATIC PROGRAMMING MODEL FOR START-UPS**

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# Sports Entrepreneurship: Ontology based Review through Digital Marketing

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## ABSTRACT

Sports entrepreneurship activities are to a large extent impacted by the progress of technology that has been predisposed by the diffusion of evidences and the formation of new international marketplaces. Entrepreneurship in sports is composed of distinct entrepreneurs who control the prospects arising from their links and social connects and augment resources by recognizing where they are most operative. Innovation is something we hear a lot about in digital age at this moment; and sport is the next digital innovation hub. Sport, play, physical educations occupy an important role in human development. Formerly, we were not able to recognize our physical activity during sport, but nowadays not only we are able to know the physical movements with the bliss of digital technology, digital technology can help in body measurement, body movements, calorie check, and encouraging physical activity, performance & injury prevention. Worldwide there is a use of new technical equipments for better life. Digital trend helps in getting innovative idea for sports. There are so many opportunities with technologies such as digital reality, big data, live streaming, connected stadiums, artificial intelligence bots, eSport, etc. Innovation in digital world is enhancing economic progression in sport by better encouraging social activism, social responsibility (application/social media), by generating new business openings to sell image, sell television right, brand cognizance by increasing support through digital promotions; regular appraises on the online platforms develop strong sensitivity within the community. The benefit digital innovations bring to society and industry is assessed to 100 trillion dollars over the subsequent 10 years. It used to comprise a minimum of fortune 500 companies an average of 20 years to grasp worldwide assessment and establish its value. With this background, the present article endeavours to study the recent advances in digital innovation in sports and the benefits of those, what it takes to be a sports entrepreneur in digital era and future of sports entrepreneurship through digital technology. The present article has offered a theoretical outline for elucidating innovations in sports and social transformations in the sports milieu.

**KEYWORDS** Social Entrepreneurship | Sports Entrepreneurship | Digital Innovation | Advancements | Traits

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## Introduction

The sport enterprise has had an evolving effect on the worldwide economic system over the past two decades with investment in public infrastructure, mobilizing assets and developing new professions and jobs. These days it is one of the most knowledgeable and happening sectors in industry, and brings with itself maximum achieved financial momentum, emergent possibilities for plenty of individuals who aspire to a future within the world of sports activities. Sports activities regulation and its management is unquestionably a subject of education with respect to the business elements inherent to sports activities.

Now, sports entrepreneurship is developing with the state-of-the-art commercial enterprise approach. As a sports entrepreneur should take the possibility to create innovative degree and scope of executing the cutting-edge idea. Consequently, sports entrepreneur are folks that represent new ideas in sports, amassing facts and practices for a progressive answer for the causes of captivating in a business venture. An entrepreneur is an administrator who is actually accountable for layout plan, goal, and strategies for a business enterprise (Analow and Karami 2003). The conventional definition of entrepreneur is the one who expands idea which has limit of assets for exploitation of possibilities (Phan et al., 2009). Going by this definition, digital international sports entrepreneurship is definitely the largest subject to assemble a segment wherein worldwide people get to engage economically, socially and take risks to the formation of undertaking a function at the worldwide marketplace vicinity.

Entrepreneurship as a process is typically denoted to as being a crucial part of the course of nurturing innovation (Blume and Covin, 2011). The promoting of entrepreneurship contests unemployment and also poverty in vicinity and allows improvement of assets as well as resources which have formerly not been utilised to the full (Robson et al., 2009). Entrepreneurship reassures regional and local

improvement via governments, social policy makers and practitioners by way of 'hard' as well as 'soft' support (Bridge et al., 1998). Sports entrepreneurship involves developing new combos of markets or assets that update present marketplace equilibrium. Entrepreneurship via innovation fetches about modifications in enterprise, markets, products, techniques or required elements (Schumpeter, 1934). Entrepreneurialism in sports is set the predicting of feasible financial and social prospects. Financial advantages can encompass wealth advent through creation of employment and funding. Social welfares encompass community and fitness effects. Sports marketers function in global platforms, in which socio-economic challenges are getting increasingly dominant by making mind and farsightedness vital to business triumph. Sport activities play an essential position in our life and supply us with a healthy lifestyle that continues to provide us to have an existence which is lively, full of motivation, and have strength to some added degree. We will have a wholesome body even as we have a healthful mind and that sustenance come most effective from sports. Sports facilitate a lot of opportunities to maintain our physical and intellectual life and remain active for gaining positivity. This helps to make thoughts peaceful and helps boosting our energy level in order that we are capable to focus on our life in general, and that we are capable of understanding the value of healthy lifestyles. In this fashion, digital era plays a very vital role to beautify our existence further than ever. Previously sports was mainly for amusement, however now sports promote life to have an incredible existence. With passage of time the outlook towards sports has changed; wearables, records monitoring, video evaluation, cognitive computing and AI are redefining the form of this sports world. The development of technology and technological know-how no longer helps to enhance financial boom or help just to set up the nation. This is however critical for policy makers involved in recreation to appreciate how exclusive coverage schemes flourish or fail to do so and what circumstantial factors are enlightening for local improvement so that one





can help them make changes to their schemes. The window for engagement with enthusiasts, athletes, groups and brands inside the global sports landscape has never been bigger. Some companies within the area are new attackers looking to create a niche, others are constantly reinventing themselves at the same time as nevertheless others are names you can realize however have observed a brand new path to achievement. Entrepreneurship in the field of sports takes place by way offive principal methods (Schwarz and Hunter, 2008).

1. Comprehending customers and their needs through marketplace research and managing information systems.
2. Coping with logistics associated with the goods and services, i.e. supply chain management.
3. Coping with the promotional features of an enterprise, i.e. advertising and sponsorship.
4. Working with dedicated sports regions inclusive of retail control and electronic trade.

5. Spotting the domestic and international recreation sub-domains.

As entrepreneurship takes place in sports via a diffusion of various means, the focal point on this present paper may be explore the method of recreation-based entrepreneurship with a particular consciousness on social factors. With this background the present review article endeavours to answer the subsequent research questions:

### Research Questions-

1. What are the benefits, gain and reasons for digital innovation in sports enterprise?
2. How digital innovation in sports help economic increase in India?
3. What skill sets are required to excel in digital sports entrepreneurship?
4. What is the future of the sports entrepreneurship through digital technology?

### Literature Review and Implications: A Snapshot

S. No.	Author and Year	Findings
1.	Lumpkin and Dess, 1996	They have tried to describe entrepreneurship as the process value formation which is marked by identification and creation of opportunities.  Now looking that this definition it can be said that, sports entrepreneurship in the digital era has attempted to bring about novel ways of engagement in sports and brought a new platform in sports spectators.
2.	Ratten, 2011	In this research the author has focussed on the insinuations for sport associations which are involved in social entrepreneurship are specified the significance of governments around the world to encourage social entrepreneurship in sports.
3.	Hardy, 1996	In this study sport has been claimed as one of the largest worldwide industries that strongly controls many other segments such as technology and education. In the sport environment, entrepreneurs grow organisations and reassure new product and service development.  It can be stated here that, through digitalization in sports entrepreneurship, other sectors are combining together and sports entrepreneurship has been viewing a new vista of development.
4.	Berrett et al, 1993	Businesses in the sport sector are depositories of entrepreneurship as they attempt to revolutionise in order to indorse a competitive edge to clientele and treasure a place in the market.  The development that sports entrepreneurship has seen through digitalization is a way forward to competitive edge. The future too looks much brighter.

S. No.	Author and Year	Findings
5.	Sweeney, 2007	<p>As sports organisations encounter contests from augmented entertainment possibilities and the advent of reachable digital technology it becomes progressively important to deliver value.</p> <p>So, there is a need for continuous improvement in digital sports entrepreneurship to meet with the growing demand of the sports customers.</p>
6.	Esaki et al. 2007	<p>Governments and companies, by capitalising in sports, can leverage from people's petition for sports, and sports can play an important role in economic development.</p> <p>Thus there is an ample opportunity for economic development through engagement in sports entrepreneurship in digital era.</p>
7.	Wilson and Gerber (2008)	<p>With respect to sports audience, their study found that the Y generation bears within multifaceted set of characters involving ambition, self-confidence, hopefulness and ability for high degree cooperative belief.</p> <p>The sports entrepreneurs can segment the market well, and address the customized need of the customers.</p>
8.	Chadwick (2011)	<p>The study stated that the characteristic features of the sport have a suggestion on how business in sport will operate.</p> <p>Thus with passage of time, and change in environment the nature of sports and business in sports changes. Digital innovation will address the needs of demographic changes.</p>
9.	Ansoff, 1968	<p>Sports entrepreneurship necessitates the use of social skills and market knowledge. One of the key responsibilities sports entrepreneurs have is to be uninterruptedly remain alert for swings and variations in the market.</p> <p>Digital innovation will need to address the needs of market and social needs of customers. The sports entrepreneurs need to have skills and traits to cater to this need.</p>
10.	Drori et al., 2009	<p>Sports entrepreneurs even employ of industry comrades counting international networks. These industry grids deliver admittance to community relations and a communal culture.</p> <p>One of the main benefits of this sports entrepreneurship from societal point of view is developing a communal culture.</p>
11.	Schulenkorf, 2009	<p>A sport is pretentious to social capital and has a link with business in travel involving sports and also general quality of life of people.</p> <p>Sports entrepreneurship customized the connection and modified the entire dynamic of the ways a fan sees the player and ultimately the group.</p>

## Conceptual Framework:

### a) Linking Entrepreneurship, Enterprise, Entrepreneur and Digital Entrepreneurship:

The words 'entrepreneur' and 'entrepreneurship' have become a voguish word; however, there are no existent and acceptable explanations (Chrisman et al., 1998) that can address those terminologies. Maximum avowals of entrepreneurship refer to economical phrases related to the entrepreneur (Drucker, 1995). An entrepreneur is an individual who

practises making use of all resources (e.g. physical, human, intellectual and financial resources) for delivering satisfactory product and service (Sawyer et al., 2004). Therefore, an entrepreneur is an individual who identifies and implements innovative thoughts into best productivity for advantageous profit making (Baumol, 1993). Entrepreneur stake an initiative to exhibit a new idea and utilized chances (Spencer et al., 2008). The present era is witnessing a peak of projects throughout the globe to nurture the





acceleration of digital entrepreneurial concentration associated with the introduction and improvement of “digital start-ups”, and more lately with their intensification to scaling-up levels. Digital Entrepreneurship may be described as embracing “new endeavours and the conversion of present enterprise by developing and employing innovative digital technology. Digital businesses are identified by means of a high depth of utilisation of new digital technologies (mainly social, cellular, analytics and employment cloud solutions) to enhance enterprise operations, discover new (digital) commercial enterprise models, hone business intelligence, and interact with customers and stakeholders through new (virtual) networks. Entrepreneurship provides an entrepreneur, a ground of chance to innovate new opportunity through an enterprise. Entrepreneur is a creator of an organization who builds an imaginative and prescient for business (Gartner, 1998). An entrepreneur is a person who starts an organization. Entrepreneurs run their business without a proper formulated plan on a regular basis (Kraus et al., 2011). This process of creation is referred to as entrepreneurship. The final results of the actor and the act is known as the business initiative. An organization is the business enterprise and it is shaped to offer products and services, generates jobs, and adds to countrywide income, even exports, and overall economic advancement.

Entrepreneurship can be described is a dynamic procedure of ambition, challenge, and creation. Entrepreneurship consists of origination of enterprise (Gartner 1988). It requires strong passion toward creation and energy level of implementation of new creations and taking risk to creative solution. Entrepreneurship creates a new direction to improve the economical segment (Spencer et al., 2008). Entrepreneurship is marked by the adventure towards the accomplishment of an economy (Morrison et al., 1999). Sport enterprise endeavours are also obtrusive in the partnering of sports activities teams with authorities and companies to construct new stadiums and arenas. Of late, in Texas the voters handed a law to hike taxes to pay for a brand new stadium for the Dallas Cowboys football team. Consequently, sport entrepreneurship operates in a different way relying on social, legal and government regulations.

**b) Social Entrepreneurship and Sports Entrepreneurship:**

Sports and entrepreneurship were occasionally interconnected in academic literature. Studying extant literature it can be found that, sport historians deal with sports entrepreneurship within the context of the interrelated histories of commercial enterprise and sport, acknowledging the function of entrepreneurial activity that appraises sports. Entrepreneurship is

Table 1. Specific features of sport and their influence on entrepreneurship in sport

Specific features of sport Smith and Steward ( 2010); Chadwick (2011)	Influence on the sport entrepreneurship
Irrational passion for sporting teams, competition or athletes; high degree of optimism and brand loyalty	Risk taking can be higher than in usual business
Different perception of the performance in sport; uncertainty of the outcome	High creativity in the development of the variety of economic, social and environmental indicators for evaluation of the institutional performance
Competitive balance, the principle of „ collaborating to compete”	The need to accept and balance the principles of “accepting the competitor”
Limited organizational control over product - limits the scope to attain competitive advantage	Necessity of inventing the unique non – sport product 's competitive advantage
Variable quality of sport product, Fans (customers) are producers and consumers	Inclusion of the fans and consumers of sport activities in the creation of the quality of sport product
Symbiotic relationship with media	Sports oriented innovation are bound to the media sector

Source: Smith and Steward (2010) and Chadwick (2011)

impacting everything. As entrepreneurs retain to binge out in all directions, it can be seen that there are discernible modifications in how human beings engage with those varied markets and industries, and it is more thrilling than anybody can perfectly guess. One such realm is the arena of sports. Sports entrepreneurship has thrived with the advantages which could come together with it. Behaviour in sports entrepreneurship is marked by enactment of risk taking behaviour, stems from the complexity of the worldwide marketplace, which has a number of specific sports contexts. Digital innovation in sports is the application of latest technologies to current sports issues or practices. The primary mannerisms of entrepreneurship are origination, proactivity and risk taking (Holt et al. 2007). In the sport context, Hardy (1986) proposed that these traits are crucial in both profit and non-profit forms of sport. Sport organizations are proactive in adopting new commercial enterprise opportunities. In Rugby Union, the Australian, New Zealand and South African organizations created a tri-nation competition that allowed for a better sale of TV rights. Within the Japanese Baseball Central League, every group is owned via a discrete TV agency, which permits for extra television coverage to boom vending and corporate sponsorship. Sports marketers interact in innovative activity that complements their capability to apply creatively and dynamically their resource base. As a consequence, sports activities marketers are those who enact ideas, data and practices for the reason of carrying out a business venture. Corporations in the sport sector are depositories of entrepreneurship as they are attempting to innovate so that it will promote an aggressive edge to clients and find a niche market (Berrett et al., 1993). Recreation services and products which might be evolved via entrepreneurship encompass stadium leases and monopolistic broadcasting rights (Mason, 1999). Entrepreneurial sport ventures have come approximately inside the non-profit agencies through community game trust businesses. Community sport trusts are autonomous charitable establishments with willpower of handing over network oriented

projects (Walters, 2009). In the United Kingdom, there are roughly 40 impartial community sports trusts related to professional football clubs (Madichie, 2009b; Walters, 2009). Innovations in sport are multifaceted and necessitate skills for ascertaining the collaborations across the sport segments and sport arena, so it is necessary to understand the skill sets needed to excel in sports innovation.

The process of sports innovation has started, has gain some momentum and is on-going, but, can be well understood as taking vicinity in waves, with each wave propelled by way of development in technology and the possibilities for the engaging organisation are threefold:

1. Enhancement of conventional enterprise models and method with digital technology.
2. Transforming existing commercial enterprise models and approach.
3. Inventing completely new engagement model or commercial enterprise models.

Entrepreneurs begin a business to augment the pronounced quality of their lives; others are looking for creating images for themselves while a few just want to test the possibility, again a few people need to start an organisation for creating fantastic modifications. Social entrepreneurs are innovators who thrive to breed services and products that disentangle social goals and troubles. In this line, social entrepreneurs have numerous traits:

- Purpose to reap a huge kind of social exchange.
- Use innovative concept to resolve a social problem.
- Use comments to acclimate and refine.
- Consciousness on the social and ecological exchange and being profitable to assist the change.
- Expand a new organizational shape reflecting a time of societal change





## Method

When undertaking this systematic literature review authors were required to specify the criteria that were used to hand-pick articles that were included. Inclusion criteria for this paper were social entrepreneurship, sports entrepreneurship, innovations, benefits, traits for sports entrepreneurship. Selected studies are compared and summarized on the basis of the authors' experience, existing theoretical framework and models. A focus on particular studies has been pooled with organized methods of study-selection and result investigation. Findings from various separate studies were examined. Extant literature was studied for the purpose of present study, key findings were recorded, analysed and the authors finally decided on the inclusion of the findings in the research paper. From around 55 articles available in the study, following keywords, information from findings were collected as secondary data for the study.

## Results

By studying the literature and the extant research that has been conducted on sports entrepreneurship and digital innovation, this review paper has obtained the results that follow. The following paragraphs endeavours to answer each research questions raised.

### *Research Question 1: Benefit, gain and reasons for the digital innovation in sports enterprise*

The sports enterprise may not be the largest sector in the world, but it is not immune from the forces of digital transformation and might even be uniquely positioned to take advantage of latest technology. Sports have moved from the sports ground to our living rooms and mobile phones. Digital media, and in large part, social media has had a massive role to play in the sport industry. For instance, the Royal Challengers Bangalore are the first team within the IPL (Indian Premier League) and the first sports team in India to adapt technology on a ginormous scale to hook up with their fans. They delivered the

RCB bold Bot, a chatbot that offers fans special content together with team information, participant interviews, videos, photographs, match reminders, and different backstage content material which are not available via conventional media. This way, the team remains linked with its fans even during the tough times, and when they should actually remain connected. Bonding develops in this way.

Innovation is when someone creates a brand new concept or evaluates an idea that already exists. Innovation is an idea which builds on adaptation (Crossan and Apaydin 2010). The technique of innovation includes selling idea and executing the developed idea (Rogers, 1995). Learning is a process to enhance quality of activity, and from gaining knowledge of strategies, one can choose the brand new idea or even be able to modify or refabricate thoughts in more recent methodologies. Innovation is imperative as it allows one to transform and develop. (Schwarz and Hunter, 2008).

Innovation in sport allows new logic and gather affordable phase. Fast advances in digital technology are redefining any enterprise and present society, sports innovation is similarly a part of it. Digital innovation in sports allows enterprises to rework on client expectancies and the way corporations can cope with them. *Product and process* both are crucial components of sport-based entrepreneurship. Product innovation in sports consists of sport related active wear, active gadgets, athlete likeness, sports related other materials, machine and nutritional and fitness merchandises. Some examples of product improvements are like computer video games, as gaming groups cognize on emerging new video games which include the range of diverse games. Every other one is fantasy sport which permits people to pick professional sports game fans to play video games on the laptop. Product innovation supplies new technical equipment's like cycling, kite surfing, rowing to include white-water kayaking. Sports products comprise virtual devices (smart-watch, head-band, and smart eyeglasses), garments, footwear,

a few manufacturing corporations especially are conscious on female active wear and a few produced sweat consumption lively wear. As an example, the “Oxylane/Decathlon” group employs greater than 1000 engineers, the workplace devotes to analyse & improve, and the company has manufactured three predominant products in 2016. One essential product innovation in sports activities is Air Seconds. “Air Seconds” is able to inflate a mattress in 10 seconds. Some different products are Swimming Goggles; “B-fast” are the first goggles capable of being adjusted to the micrometre. Walk shoes are capable suit each stride. *Process innovation* in sport has to change promotional component through advertising and marketing, sponsorship, celebrity endorsement, sports blogging, sports tourism etc. Even there are mobile fitness applications (apps) and available online workout and fitness web sites. Adidas released a brand new computerized manufacturing technique in a facility called speed factory. This could result in production returning again to Europe increasing the economic boom. It also educates brand awareness by using snowballing sponsoring through digital campaigns. Everyday updates on the net platforms increase sturdy community feeling. Other benefits of digitalization of sports include-

1. *Small and personalized offerings*- One perk of the start-up world in terms of sports is how unusual small corporations are. A common difficulty among athletes lie with big box stores - they are just too impersonal, and considering how personalized every athlete needs the whole thing to be, it truly is a problem. Fortuitously, marketers have made greater customized offerings to be had, that is growing greater possibilities for athletes throughout the country.

2. *Safety in sports*- In any sport imaginable, safety is the primary priority, but there are nevertheless endless protection concerns regarding virtually each component of each sport. Of course, there are protracted ways for the reason of use of leather football helmets etc., however that doesn't mean

there aren't very real worries nonetheless present. As a matter of fact, it really is where entrepreneurship enters the true picture. Because there is a robust cognizance on locating innovative ways to remedy issues, people have managed to locate elucidations to severe problems concerning athlete protection, and it is absolutely changing the game. One unique domain of challenge is brain health, a unanimously acclaimed critical issue.

3. *Tech-tracks*- Digital innovation in sports activities allows coaches to use the collected motion information in evaluation and enhancing player approach after the sport, with particular applications visualising the moves to review in practice periods, it presents greater scope for upgrades, identify mistakes, work on them, continuous monitoring the statistics gathered; all these are aggregated by the use of algorithms after which displayed snap shots for fans in actual time, developing a ‘deeper fan experience’, both in stadiums and for fans at home. Black Box Biometrics created a small wireless sensor referred to as Linx IAS which, connected to a cloth headscarf, detects blows to the head and without delay sends ‘effect information’ to a close-by cell phone or pill and is then driven to a cloud, which informs all staff of the severity of the effect.

4. *Continuous improvement*- There is a robust correlation among entrepreneurship and sports. Every sport is marked by team effort; but it is also true that nobody can go to the top by himself. Understanding the way to network with people and craft relationships is a key to success. Notably else, although, it is definitely understood that it is all about being the excellent one can be. Nobody is eternally at their best; it is true that there is constantly some room to keep developing and gradually improving, and this attitude shared via businesspersons and athletes alike is insistent on each party to be even higher at what they like.

5. The enthusiastic reaction is understandable, as having a digital device creates a variety of efficiencies. As an alternative of having down in routine work,





organisers can concentrate on achieving out to players and sponsors. The information accrued – suit effects and scores – can help in ranking gamers. It also enables to construct a web profile. Coaches can examine the performance of players and enhance their competencies and strategies. Matches can be recorded and performed back, facilitating permitting evaluation of errors or strengths. Digital revolution presents industries with tremendous possibilities for value creation. It used to take Fortune 500 agencies a minimum mean of 20 years to reach a billion-dollar valuation; today's new digital start- United States of America have gone there in only four years.

The sports arena is the largest and quickest developing industries worldwide. Humans now watch sports through the internet, which has spread out a new road for the internationalization of sports teams, activities, and athletes. Via growing reputation of sports activities has built a sturdy national and global prospect that includes financial, social, cultural, instructional aspect. Most of the corporations focus how sports groups trend to coping with their services and products and that they absolutely trade global market (Chad-wick, 2007a, 2007b). It may be observed nowadays humans are using so many sports devices from different places; Indian people wearing NFL hats, wherein people from the US sporting football jerseys with the call of Messi or Henri, and those from France carrying basketball caps and how it is miles possible because of globalization. The cutting-edge game has taken place in numerous phrases like basketball, tennis, bungee leaping, paragliding, sport of mountaineering, even rafting, mountain climbing, popular scuba diving, adventurous hurricane chasing, browsing and white-water kayaking (Olivier 2006).

Digital media has blurred the strains between a player and a fan. It has created a relationship between them that is going beyond the sphere. It has customized the connection and modified the entire dynamic of the way a fan sees the player and ultimately the group. Consequently, it is relatively

essential to place out the right content for fans and control their digital media successfully. That is where sports activities control comes into play.

### ***Research Question 2: Digital innovation in sports helps economic increase in India***

The world is changing rapidly. Innovation is visible in each sphere of life. With advent of so much of digitalization in sports, the economic system is also getting impacted. Formerly, sports used to be seen simply as an extracurricular interest. These days, people take the sport with significant passion and take up sports as their profession. Diverse careers are developing that revolve around sports activities. Opportunities had been created through employing particular stakeholders inclusive of the improvement of sports activities academies, sponsorship of sportsmen, and masses. Developing disposable incomes and the upward thrust of millennials are making the travel and hospitality zone unexpectedly adopt diverse gear, technologies and virtual structures to enhance patron enjoy. Sport as an enterprise is worldwide biggest and quickest developing employer together with training and tourism, which have an important attention of social innovation and social entrepreneurship. With the economic improvement and scientific technological development, information technology rose swiftly, and turns out to be the dominant element of socioeconomic development. Recreation is an effective device for companies to venture past sponsorship into social causes. There are social representations of sports manufacturers as they project their picture into their immediately community (Ferrand and Pages, 1999). The birth of science and generation will result in modifications within the structure of financial sectors; make the socioeconomic development towards the vertical facts. As the high innovation, excessive force, excessive multiplier roses of information generation in society more desirable, facts generation might be the main driving force for social development.

First, the development of information technology has injected new energy to different industries.

for instance, the application of information technology within the sports enterprise, have a signal of importance to elevate the extent of sports industry, sports and medical education, to decorate people's physicals and aggressive sports activities. Statistics technologies have a big role of studies and development of new technologies, for example, security machine in competitive sports activities; want hardware/software infrastructure answers, community implementation and some content. The sports activities enterprise zone may additionally include several unique segments along with sports tourism, carrying goods (in production and retail), carrying clothes, and the to be had opportunities in wearing management and sponsorship. It's far visible across the globe that sports as a complete-fledged industry. however, in India, game is yet to be identified as an economic region, particularly because of the truth there was little or no comprehensive have a look at finished at the enterprise's length, potential, and on the to be had opportunities which are on provide. Several issues stand up whilst examining the economic effect of sport. Furthermore, a risk exists while the choice makers employ different and contradictory principles (Howard, 1995). Usually, monetary effect studies are commissioned through those who will gain from a sport facility/franchise along with the proprietor of a team or the sponsors of a team (Coakley 2004). Any other capacity difficulty arises while a financial impact observe, executed with the aid of those who profit politically, incline to estimate only the fantastic blessings (Lee, 2006). Economically talking, it's far a not unusual certainty that sports and the constructing of novel sports activities stadiums, grounds or complexes in a place have a high-quality impact on the local community. Many experts are involved with the final results of those economic effect research due to the fact the studies tend to embellish the blessings a game facility or franchise will deliver to a zone (Hunter 1998).

### **Research Question 3: Skill Sets Required to Excel in Sports Entrepreneurship**

The internet, in conjunction with being effective and less costly technology makes massive assets

extensively and freely reachable among people. This offers absolutely everyone the possibility to broaden a thriving commercial enterprise very swiftly even without capital or connections. Every person has some unique quality, the quality of leadership, advisor, and decision maker as a sport entrepreneur should have all traits. The characteristic of entrepreneurship are searching for opportunities (Shane and Venkatraman, 2000), success focused (Turan and Kara, 2007), being a visionary leader (Kao, 1989). An entrepreneurial traits and goal have a significant impact in term of strategy and behavioural style of an organisation as a strategic behaviour (Mckenna, 1996). The main focus of an entrepreneur is a value of innovation for taking opportunity through decent management (Kraus et al., 2011). He/she ought to have knowledge earlier than selecting a particular field, as an entrepreneur should be ready to face challenges as well as ought to take a risk using the opportunity and make a decision and come out with the new ideas or taking as a platform. Here some sport entrepreneur traits has been defined which are consists of:

1. **Excellent Communicator:** A sport entrepreneur should have effective verbal and non verbal communication ability. Both the abilities are required and that improve with hard work and as a sport entrepreneur ought to have knowledge of every perspective of sport so they can communicate professionally.
2. **Equity:** As a sport entrepreneur have a sense of right and wrong. Clients and commercial enterprise associates must be treated fairly. They must be a good decision maker and should be the good injustice.
3. **Honesty:** Honesty describes 4 parameters Sincerity; accept as true with, and commitment and Reliability. A sports manager need to have excessive maturity level, have to reliable and trustworthy person so they can judge honestly in each scenario.
4. **Mastery and passion:** A sport manager should have a knowledge and skill so that he/she will capable of demonstrate a personal commitment and she





- or he/she very passion about the job they do, then every new task will be tackled with enthusiasm.
5. **Selflessness:** As a sport entrepreneur is very demanding and challenging as well as flexible job. Be as a sport manager you have to focus on customer need and satisfaction and deliver quality service to the customer
  6. **Teamwork:** If someone wants to be a successful entrepreneur, they need to construct a good team and work together because each and every contribution of team worker has required without team one person cant capable of build a community or appropriate environment.
  7. **Humility:** As a sport, entrepreneur ought to not have an attitude that only she/he can do better than others because you have to be more open from inside so that you can learn from others or you can assist others to share your ideas.
  8. **Nous:**Some call it savvy, others wit or acumen. In the long run it boils right down to knowledge; knowledge how the systems you are operating in work. whether this is your place of knowledge, other associated regions or wider structural systems consisting of legislative frameworks

- or the economic system, it's miles essential to recognise how to control them and how they could have an effect on your commercial enterprise.
9. **Adjustability:** Simply as one desires to be able to that what allows him to diverge out of their imaginative and prescient mind, people furthermore might want to bring it again heading in the right direction whilst the inevitable and the unexpected knock individuals off the path. There is an infinite quantity of crashes on the street to achievement. Adaptability permits individuals to address any and all the similar types of problems. Thus in the field of sports innovation, adjustability is a very important trait required.
  10. **Tenacity:**With the number of challenges every entrepreneur faces you can never afford to let any get on top of you. A resolute entrepreneur is the individual,who gets inspired when they are blocked against a stump, come up against a wall, feel thrilled by the view of finding how to come out of the problem and never gets frustrated by roadblocks. Tenacious entrepreneurs don't give up because they don't know how to give up.

Desirable entrepreneurial competencies and skills defined by the entrepreneurs and scholar's and professional standards

Izquierdo, E., Desschoolmeester, D., Salazar, D. ( 2005) A View from Entrepreneurs and Scholar 's Perspective	Model developed by Consortium for Entrepreneurship Education ( 2004)	National Occupational Standards UK ( 2012)
Identifying business opportunities	Personal Effectiveness Competencies	Scan the business environment for enterprise opportunities
Evaluating business opportunities	( Interpersonal Skills; Initiative; Ambition; Adaptability and Flexibility; Willingness to take risks and learn)	Make sense of enterprise opportunities and their compatibility with organizational priorities
Decision Making	Academic Competencies	Identify stakeholders for an enterprise venture and evaluate their needs
Networking	Workplace Competencies	Develop a vision and goals for and enterprise venture
Identifying and solving problems	Industry – Sector Technical Competencies	Demonstrate the difference created by an enterprise venture
Oral communication abilities		Monitor and evaluate the difference created by an enterprise venture
Innovative thinking		Plan to deal with uncertainties, ambiguities and contingencies relating to an enterprise venture
		Identify customers and how to engage them in an enterprise venture
		Manage an enterprise venture
		Review and sustain networks to support enterprise venture

Source: Own elaboration based on academic literature and national occupational standards in UK and USA

#### ***Research Question 4: Future of Sports Entrepreneurship through Digital Technology***

The three main stage of innovation which consist of taking initiative based on current phase develop an idea, adopting the business strategy, structure, system then finally implementing the idea which deals with complete challenges and risks, therefore, the result is innovation (Damanpour and Schneider., 2006). Application through the technological application can be recognized features of human frame its which include body fats, water level, muscle, heartbeat, walking step, weight and so on. smart gadgets are so powerful now a day without spend lot of time you may get the data via workout, playing, yoga and each day activity like the fitness band, smartwatch etc. live streaming is progress that non-stop flows of motion sports entrepreneurs has taken business opportunities to attract client. A fan can watch the action live any gadgets consisting of computers, tablets, mobile devices via Facebook, YouTube or more social site and many others. Sports fans watch and enjoy the sports because of entertainment and family fan (Wann et al.,2008). Linked Stadium Cisco connected stadium is a tremendously scalable, safe and comfortable community that's designed specifically for sports and purpose of entertainment locations to deliver all forms of admittance, infrastructures and amenities, entertainment, communications and procedures in a single modern platform. Sports blog sport is an individual generated sports content website, blogs cover a good number of personal interest including tour, culinary courses, and sports, sports activities blogs allow fans of given information about sport or players, sports activities, web-based sports betting etc. Manufacturers and retailers are seeing an urgent need for action. Their special function is subjected to thorough, vital examination, scrutiny desires to change absolutely. This also consists of in depth teamwork with the manufacturers in addition to have close interlocking between online and in-store offline products and services. While exploring facts about sports industry as a whole, however it can asserted that, Amazon is the most effective one of

many market contributors – they are constantly inquisitive about studying and benefitting from every market player. Certainly, the right handling of big data needs to be similarly deepened. The retail business nevertheless has a vital function with many static customers, particularly in the sports arena. Audiences are instinctively clustering to small screens and new systems (specifically social media) to meet their appetites for sports, seeking on-demand, immersive, and customized content material. Customers have one prerequisite, i.e. a seamlessly linked amusement in the form of a crest online and in-store. Additionally they anticipate being able to strive before they purchase, which may be facilitated by technology. Understanding this, [Intersport](#) (the multi-category professional destination in sports items) have hurled upon a retail concept stores which are marked by 'click-n-collect' kiosks, this one allows customers to order products sitting at home and receive in-store or it can even be vice-versa, and also to examine items and acquire more evidence about the products they choose to buy. The disjointed marketplace which is a characteristic of the digital world has sent spectators scampering off in so countless diverse directions that it's now more challenging for brands to influence customers in the teeming digital market.

#### **Conclusion**

This paper has attempted to examine the role of digital innovation in sports and how effectively it's growing day by day. It also defines sports entrepreneurship and how sports entrepreneur makes a social change and as well as the trend of generation. Sport is something that gives us an energy level, from beginning sport play a very crucial role in our life it gives us not only energy it gives us happiness, motivation, help to build community, healthy and active lifestyle. But it has more effective when we able to know the results quickly because of technology. Digital technology helps to get information throughout playing, cycling, workout and watching sport etc. For digital technology, we can get closer to our dream. The sports industry is





very demanding as well as fastest growing business, sports entrepreneurship has built a strong image between people, business government, and nation. Sports as a consumable product may be very much different from what it was even 10 years before in the past – and the enterprise neighbouring it almost unrecognisable. Digital era has been the catalyst for this metamorphosis in sports, and there may be slightly an element of recreation that has no longer felt its impact.

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The Editorial Board had used the iThenticate plagiarism [http://www.ithenticate.com] tool to check the originality and further affixed the similarity index which is 22% in this case (See Annexure-I). Thus the reviewers and editors are of view to find it suitable to publish in this Volume-10, Issue-3, July-Sep, 2018

**Annexure 1**

A Snapshot of Digital Sports Entrepreneurship

ORIGINALITY REPORT



PRIMARY SOURCES

1	www.researchgate.net Internet Source	5%	12	Faghih, Nezameddin, and Ehsan Javanmardi. "Sports Entrepreneurship: A dynamic model of the fundamental economic factors in the English Premier League", QScience Connect, 2014. Publication	<1%
2	inderscience.metapress.com Internet Source	4%	13	Submitted to University of Stirling Student Paper	<1%
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# Consumer's Perception over the Reliability of Online Coupon Websites

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## ABSTRACT

Online shopping brought along with it the emergence of a new trend of online discount coupons. These were websites which acted like a database to all the online shopping deals and coupon codes. With a sudden flood in the number of organized coupons/deal websites such as Near Buy and a similar rush in lesser organized coupon websites such Coupon Dunia one is compelled to understand the consumer's perspective towards these online databases. It is important to know is customers even take it seriously, do they find the content of the website reliable and does demographic and previous technology exposure make a major difference in the consumer's perception of the reliability of this service. Here we have taken primary data of 100 respondents through questionnaire and tested it on statistical tools using SPSS.

**KEYWORDS** Consumer Behavior | Consumer Psychology | Intention | Perception | Reliability

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## Introduction

There came several online platforms which provides and make available coupon to customers, this way there is a win-win situation for both the service provider and the customer.

Studies (Carter 2017) have shown that American customers often select their choice of store based on the availability of discountcoupons. Mobile App based cab erVICES like *Uber & Ola* majorly rely on coupons to attract consumers(Business Today 2019). These coupon websites are the major contributors to the success of affiliate marketing. Currently, service market place is gaining its importance by providing the customers right solution for their problems. With the growing competitiveness and the race of achieving customers, various marketing techniques were formulated and given birth to. Many of the marketing techniques could not provide the desired results as they were not correctly targeted. With the advent of online coupon market, this task has been sorted out for most service providers. Consumers love getting deals and offers, and coupons are a contrivance to attract such love and loyalty from consumers.

## Literature Review

Internet has been developed as a new channel for distribution, companies prefer omni-channel in order to keep pace with the expectations of the consumers. Not only consumer goods or durables are now available online but even books are present to be bought and read. A study (Hasslinger et al. 2007) reveals that 91.5% of customers have rate their experience to be positive or neither good or bad. The most basic psychology behind online shopping is convenience which was previously considered to be price says a study (Oppenheim & Ward, 2006). Customers often look for cheap deals over the internet and they consider the experiences of others, mainly their friends and family. The opinion of friends is considered to be the major reason for consideration among peers for online shopping (Hasslinger et al. 2007).

When we discuss offline channel of distribution, a study (Faryabi, Sadeghzadeh & Saed, 2012) shows that image of the store also has a positive relation on consumer's intention to purchase and the type of outlet and physical evidence of the same has an effect on purchase decision. Not only price and physical evidence has a relation with consumer purchase decision but discount too has a role. Discounts should be perceived as the offering is of higher value and hence the phrases like "Sale" are used, such phrases stimulates consumer's interest (Inman et al. 1990).

When we consider offline shopping of electronics, the store image has a greater influence as service encounters take place at the store and servicescape quality can be an influencer of store image (Baker et al. 1994). When we talk about coupons, they have been a promotional tool and the cost cutting measure in the minds of consumers (Spiekermann et al, 2011). Hence it increases the attractiveness of online shopping. "Coupons provided by the manufacturer have stronger effect between coupon perception and behavior towards coupon" (Barat, 2012)

There are several factors which influence consumer behavior with respect to cosmetic products, major factor was considered to be social factors like reference group and aspiration group (Kumar et al. 2014), which brings us to another factor behind success of online coupon websites, where they help in endorsement of a brand.

In the recent past e-commerce has drastically changed the shopping habits of customers around the globe. Ecommerce is a platform for everyone. Anyone can sell and anyone can buy.

India ecommerce industry has grown with a CAGR of 17% from 2014 till 2017 and is expected to reach 31.2% by 2015 (Indian E-Commerce Industry Analysis 2018). Figure 1. Shows this penetration of Internet in India.



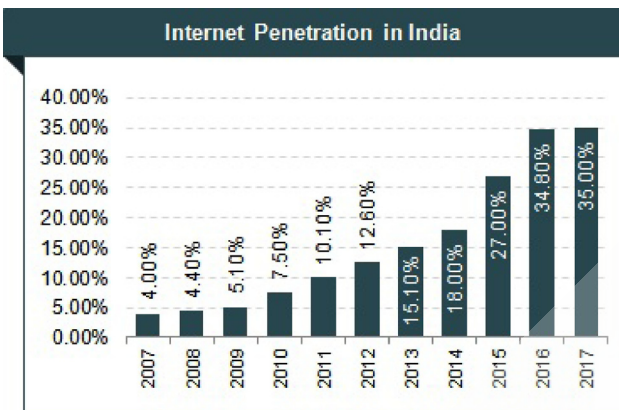


Figure 1. Internet Penetration in India Source : (Indian E-Commerce Industry Analysis 2018)

## Business Model

Coupon websites are a part of affiliate marketing where the portal gets benefits on the basis of traffic it brings. This practice usually follows one of the two business models mentioned below:

1. The coupon website partner with the merchant to agree to run a promotion on their website where the customers can pay money and get a deal, in return the online portal charges commission on the revenue. Here the commission is need not to be paid up front.

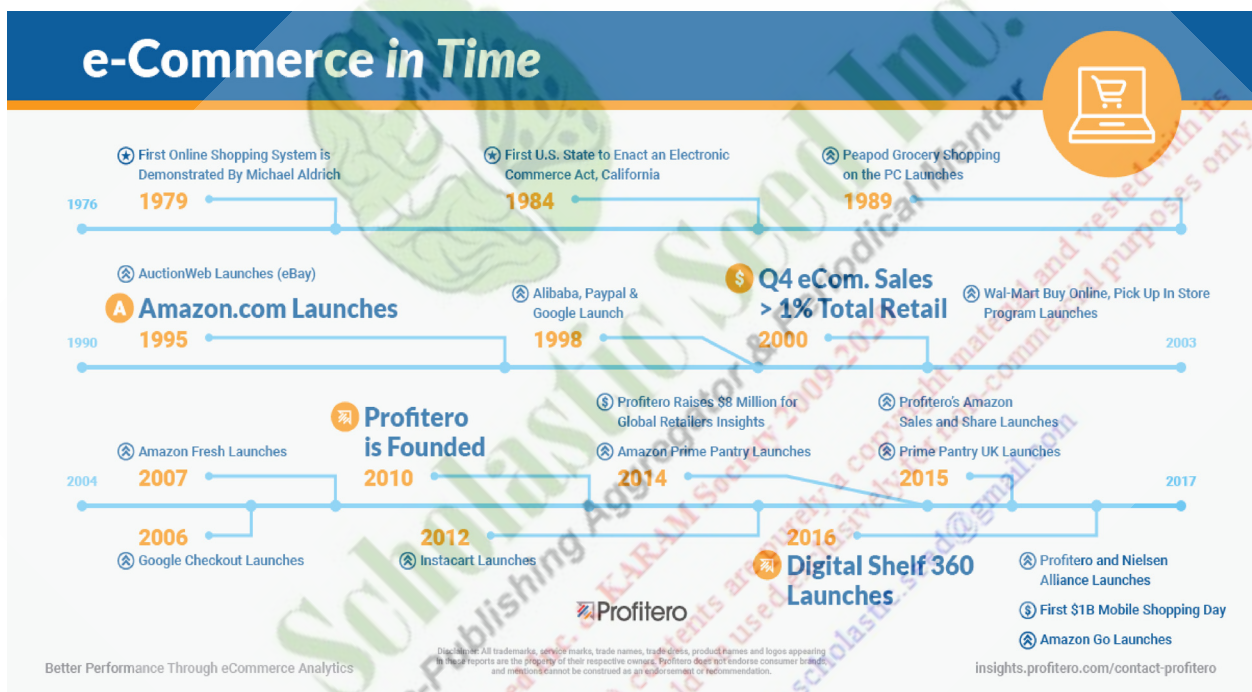


Figure 2. Evolution of E-Commerce: Source: (Cahill 2017)

This growing importance of e-commerce and different companies partnering up for taking advantage of e-commerce, give birth to online coupon websites. Coupons in marketing are redeemable documents or cards which can be used for financial discounts or rebates.

In e-commerce online coupons are used to redeem such coupons on the website, to attract customers and making new loyal customers.

- Eg. nearbuy
2. Coupon website agrees the merchant to run a free promotion on their website where they give coupons to the merchant's place or product, in return the coupon website get paid for the coupons downloaded or redeemed.

Most of the online coupon websites like Groupons, nearbuy, savings, FatWallet etc, started partnering with major e-commerce players.

Competing coupon websites in India

1. CouponDunia
2. Freekamaal
3. ShopPirate
4. Buy1Get1
5. Mydala
6. CouponNation
7. CashKaro
8. CouponRaja
9. CouponRani
10. Couponzguru

## Research Methodology

With the increasing use of online coupons, their reliability and relevance is now a doubt in customer's mind. This research focuses on consumer's behavior with respect to online coupons.

The followings are the hypothesis to be tested;

H1: There is a stronger negative relationship between age of the customers and their purchase intention towards discount coupons

H2: There is a stronger negative relationship between income of the customers and their purchase intention towards discount coupons.

H3: There is a stronger positive relationship between technology exposure of the customers and their purchase intention towards coupons.

A sample size of 102 respondents was selected using convenience sampling. A questionnaire was created using Likert scale and 25 questions which captured the essence of the various variables. Statistical tools such as T-Test, Chi -Square and Simple Bivariate Correlation were used to test the hypothesis.

## Data Analysis

The primary data collected from the questionnaire will help establish the relationship and consumer's behavior towards online coupon websites. Factors like price, convenience, brand and discounts have been given focus and discussed in Table 1.

**Table 1: Descriptive Statistics**

Gender		Frequency		Percentage			
Female		42		41.17%			
Males		60		58.83%			
Result	Price	Convenience	Referral	Discount	Brand	Reviews	Hit rate
Mean	3.96	4.12	3.29	4.24	3.95	3.58	3.60
Median	4	4	3	4.5	4	4	4





This shows that the most important factors while purchasing coupons are:

1. Total discount with average ratings 4.24
2. Convenience with average ratings 4.12
3. Price with average ratings 3.96
4. Brand with average ratings of 3.92

The total discount which the customers get after purchasing the coupon is the most significant factor and convenience which turns out to be the second most important factor refers to customer's convenience in using the coupon, for example if a customer purchases a coupon for Pizza Hut but only particular outlets are accepting the coupon then such a hindrance caused will have a negative impact on consumer's buying behavior.

### Figure 3 Analysis of Age and Frequency of purchase

The Figure 3 shows that consumers use coupons less frequently and frequency of usage among consumers of age 35 and above is majorly once a month or never purchased. Only a fraction of consumers use coupons almost every week and none of the respondents used coupons daily.

**Table 2 Gender and influence of Brand**

Labels	Average of Brand associated with coupon
Female	3.97
Male	3.93
Grand Total	3.95

The respondents consider brand as one of the factors which is important while they purchase coupons. The respondents gave Brand Association an average rating of 3.95 on a scale of 5. Then female and male respondents are bifurcated, we derived that females gave brand a higher rating as compared to males. While average ratings for Brand association was 3.95, males gave the ratings of 3.93 and females gave the ratings of 3.97

Applications like Uber, OLA, MMT etc, give extra discount on referrals which can be an easy way of making extra discounts without spending any money. But, while conducting the survey, it was found that the respondents gave Referrals the lowest ratings as compared to other factors like Price etc. The respondents gave an average rating of 3.2 on a scale of 5 to Referrals making it the least important factor in their list.

While analyzing the impact of different festivals and occasion, it was found that respondents of the age group 25-35 consider Occasion as a major factor for which they rated occasion 4.15 whereas respondents from other age group had a different story to tell.

**Table 4 Occasion and Age**

Row Labels	Average of Occasion
18-25	3.5
25-35	4.15
35-45	2.8
45-55	2.33

While analyzing the reasons why respondents purchase or are reluctant of purchasing coupons, the observations were as follows;

1. Reason for coupon purchase
  - To buy product at better price
  - Try different product / service for less price

Respondents agreed that they would switch a product/service if an alternative is available at better price with a coupon

2. Reasons why coupons are not preferable

### Figure 2 Analysis of consumer behavior

The two major reasons which make consumers reluctant in purchasing coupons are,

- The Terms & conditions related to the use
- The perception that they are yet another marketing technique

## Hypothesis Testing

In this T- test was conducted at a significance level of 0.05. As per Table 5, it can be concluded that there is a significant difference in technology exposure among the two genders. This implies that men and women both are equally technology savvy.

**Table 5: t-Test: Two-Sample Assuming Unequal Variances**

	Male	Female
Mean	4.383333333	4.428571429
Variance	0.748870056	0.738675958
Observations	60	42
Hypothesized Mean Difference	0	
df	89	
t Stat	-0.260883765	
P(T<=t) one-tail	0.397392424	
t Critical one-tail	1.662155326	
P(T<=t) two-tail	0.794784848	
t Critical two-tail	1.9869787	

## Conclusion

The coupon market has not yet been successful enough to be in consumer's basket more frequently. The research was successful in finding out the industries where coupons are considered more reliable and where the purchase intention lies.

### Industries

- Cafes & Restaurant
- Online food delivery
- Online shopping
- Online payment portals

With T-test we concluded that both males and females were equally inclined towards new technology and mobile applications. With this research the major reasons pertaining to consumer using or being reluctant to use coupons were highlighted.

## Managerial Implications:

This study will help online business models evaluate the usefulness of online discount coupons as well as it will help in selecting the most preferred brand for online discount coupons for example coupons are mostly used in which sector, is it FMCG, travel or leisure etc. Unlike a common perception, it has been found that male and females have similar technological exposure and technology savvy behavior. This analysis helps in identifying that online coupons can be used in case of products which are not just restricted to males but would find equally good fitment with female oriented and female driven products. Hence can be used across both genders.

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The Editorial Board had used the ithenticate plagiarism [<http://www.ithenticate.com>] tool to check the originality and further affixed the similarity index which is 8% in this case (See Annexure-I). Thus the reviewers and editors are of view to find it suitable to publish in this Volume-10, Issue-3, July-Sep, 2018

## Annexure 1

### CONSUMER'S PERCEPTION OVER THE RELIABILITY OF ONLINE COUPON WEBSITES

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## Relevance of foresightedness in Startups: Understanding problems & finding solutions in the era of Industry 4.0: A perspective & view point specially relevant in Indian Context

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### ABSTRACT

Opening up of a large number of Startup in India in last couple of years, have setup a new dimension of development which is fueling the creativity and imagination of our young generation. Technology innovations seem key driver of this emerging platform. The eventual success and failure of this new mode of development shall be largely depends upon our ability to understand & exploit emerging supply-demand domains affecting different phase of life. An insight into how the industry and business sector has undergone changes under the influence of technology at consumer level over last few decades need to be analyzed in great details to understand and predict the likely behavior in future so that all these possibilities may be exploited by our startups.

**KEYWORDS** Technology | Startup | Industry 4.0 | India Problem

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Foresightedness is the key word in this context and background, which has been attempted to explain in this article with an example of emerging Industry 4.0 platform. In domain of communication, understanding the journey from making a trunk call then to STD call and then to operator driven Pager to mobile phone to satellite phone to Network driven communication opens up new possibility of development in near future driven by innovation and creativity. Knowledge, skill and manpower engagement enters and transits through new possible emerging domains.

This issue has multiple dimensions as one may find extremely difficult to understand all elements of foresightedness to the extent that we predict the future solutions aligning with the technology changes over a period of time. It is quite complex but intuitive in a sense that by seeing, analyzing and understanding a past evolution process (technology influenced behavior) one can somewhat predict the future behavior. I tried to contextualize your question by linking the issue with emerging **Industry 4.0** concepts driven by technology as being widely discussed and deliberated these days. New technology tools like Artificial Intelligence, big data analytics, deep learning, Robotics, Genetics, Bio-technology and Nano-technology etc. are expected to work together with different impacts in different domains of life to solve more complex challenges, anticipated to be facing us during this next generation era of **Industry 4.0**.

Industry 4.0 stands for the fourth industrial revolution. Over each of the past three industrial revolutions we had seen different drivers from steam powered machinery to electricity to information technology spearhead-growth. However, the fourth industrial revolution is expected to drive changes differently. Technology changes bring a variety of impact on social behavior and on handling daily life

situations which will have its own unique problems and solutions. This shall create a new pattern of supply-demand system in market which in turn will influence the labour engagement patterns including skill, knowledge and competency level of producers and consumers.

Technology, when changing from one stage to its next stage, some kind of oscillations set in the system (between the old practices and systems and the new possible emerging practices and systems) with reference to supply-demand behavior of the producer and the consumer. The transition phases pass through many stages before it finally gets settled at the new equilibrium point. All these happenings and scenario unavoidably give rise to new kind of problems and solutions.

In the present context, Industry 4.0 as a technology change driver is the best example to apply principles of foresightedness in finding solutions of different problems that may emerge during this transition phase.

I am writing on some of my thoughts that may suggest you gain some insight and hint into the complexity of the subject which might facilitate you in finding some more answers to the problem. Under the influence of these technology changes there shall be a variety of graded impacts in different spheres of life as some domains will get directly affected while some others may not. As a consequence of those impact, there shall emerge a new trend with revised priority and preferences of products and demands for services. The domains of skill requirements and knowledge composition of manpower shall also undergo a change with change in the pattern of labor engagement and growth of new types of occupations.

## History of technology transitions in recent past: A few examples

One needs to minutely look into the transitions pattern that had happened in recent past, over the last 2-3 decades. Typically, the Branch Manager of a bank who used to get concern with large queue in front of different cabins now gets concern with queuing problems as happening in their information-processing/data-networks system. Employees too used to have only two distinct domains of life, one as official, and the other as personal, with little and occasional overlapping and intersections. But, now this has changed, some employee may work in real office and then transit to virtual office (after office hours) and others may transit from real home to virtual home (during office hours). This new behavioral pattern shall generate the need of introducing new HR Policy(s) in different organizations in the time to come. Some of the transitional phenomena one can see in following examples:

1. Transitions happened in very recent past. There used to be a common scene during late 1980s, when you always notice few shops with a yellow hanging glowing board written with STD calls etc. in any highway or narrow lanes. There used to be a big queue of customers to get their chance to make a call to near and dear ones. Now, during 2018, one can always see similar set of arrangement with shops named as "E-Mitras" which are deliver all kind of computer aided services, right from online forms/applications, net facility with a bit of xerox and other services. Technology changed the labour-engagement-pattern, which caused changes in business-model. One kind of communication-demand generated several kinds of communication-demands, fulfilling the ever creative mind of mankind.
2. Take another instance, during early 1990s when there used to be huge queue in post-offices/banks with facility for token distribution to permit time stamped services to customers. Everyone used to wait for their turn and one usually witnessed huge rush on the last working day of months in banks, and on the last day of submitting job-application to be sent by registered-post in post-offices. These days, this pattern does not exist, but the system has switched over to another domain where one needs to wait again for a coupon in a typical mobile repair centre or for any new service. What is observable is the entire shift of manpower from one kind of engagement to another kind of engagement, but showing many similar conditions and situations among different work-places ; and the entities providing services required different sets of skills and knowledge though under similar relationship between the customers and the service- providers.
3. Around two decades back when computer was introduced into the market, it not only replaced typist job, but in the process reformed the entire process of information handling and communication and also created new avenues and dimension of development. In essence, it created a new set of demand in a variety of segments driven by needs for further development, new quality parameters, and more perfection. Technology may suppress demand of manpower in one domain but creates ample demand in other domains and in process take the development into wider and deeper areas.
4. In essence, one can see that the queuing problem shifted from post-offices and banks to mobile repair centers to customer care-desks. Data and information flow, transmission speed and queuing-up started happening in high-speed networks. Instead of 'mankind', it is 'data' that is





queuing-up and if we can solve data queuing-up problem, we can make mankind a little happier in their daily life. Post-offices that used to function for '8-Hours' are now handling posts on '24-Hours' basis as they shifted business to achieve economy of scale. Banks that used to be extremely busy only on month ends, but now remaining busy all the times in handling the variety of growth of new financial instruments with loads of queries associated with each of them. Pattern and methodology of fund investment and saving have undergone massive changes, facilitated by major technology changes in IT domain in the background. Technology changes reduced human crowds in banks and post-offices, but it created and added-up many newer domains, more complexification of instrumentation, and unending list of instruments, all being associated with still new conditions and functionalities, which together, in a sense, made human life much more complicated encountering ever present possibilities of data-crowding, server-failure, and mechanism-jamming, routinely, even in unexpected occasions, places, and times.

## An insight into transitions

Industry 4.0, in its essence, has taken birth duly driven and guided by the emergence of a unified information and knowledge-base with integration of resources and capabilities to manipulate, to assimilate data and information, to predict trends and behaviors that, in a sense, have opened up new avenues of multifaceted development. Advancement in Information-flow with speed and spread has developed a new pattern, capacity and flexibility to deliver goods and services. A person working in one industry at one rank and position and another person working in another similar industry at same rank and position may differ greatly in their functional capabilities in delivering goods and services depending upon their ability to connect with

the massively networked grids of information and knowledge that ceaselessly exist behind the screen in the virtual world.

It is true that a new system in course of its emergence also prepares and generates new set of manpower, knowledge and skill that shall eventually help to promote the new idea and concept as propagated by the new system. Mankind is gifted with a beautiful instrument of 'Mind' that always looks forward and ceaselessly work to produce something better and advanced than the previous version. New version and new system with advancement is the key of mind functioning driven by power of desire in technical sense. This drive of endless desire in the process creates new systems and processes that may not exist in physical world at that moment of time. When there is Industry 4.0 in the eco system, Mind shall naturally tend to imagine, engage and work towards Industry 5.0. This process goes on eternally. As an example the process of switching on a TV graduated from Manual system of pressing a button on TV to Remote system and now to sensor based system driven with inputs that triggers the sensors. This ability and characteristics of Mind to achieve unfulfilled desire gives birth to new advancements through innovations. This creates ample opportunities for new businesses and startups.

Some of us fear that that emergence of new technology may make the manpower redundant, which, on the contrary, might make manpower more engaged but differently, in a new pattern, on a new platform, over new strata, into a new direction, and with a new scope and possibly with new engagement. Desire of 'Mind' (a constantly incrementing push-factor) may not retrench manpower, but surely will re-distribute the emergence and growth pattern of manpower which finally trickles down to growth of corresponding skill and knowledge level of manpower.

As human life becomes more comfortable with technology interventions and, in a sense, induces certainty in its outcome, but at the same time, the factor of uncertainty may become more relevant and pressing in life. Breakdowns, failures will have undefined consequences and implications. We are customized and trained to an extent to tackle emergencies arising out of fire, electric shock and breakdown of elevators and lifts. But, the consequences on account of data and communication breakdown are not known clearly and totally at this stage. Need to develop the counter-tools and their use in future encompassing all domains of life may make 'life' further complex.

In a typical **Industry 4.0** scenario, car manufacturing facilities may have robots and automated facility to carryout routine and standardized, structured and well defined welding and assembling task with minimum human intervention, but at same time demand for a welder still remains to address task arising out on account of unpredictable work requirement. Thus, Industry 4.0 shall have more influence to affect the standardized works but unpredictable work of failures and breakdowns will still look for human interventions. This scenario demands enhanced skill and knowledge level of a welder to operate and deliver in a multi-platform environment. Involuntarily, many of us might have already started working in Industry 4.0 environment, but the challenge is that how do we align our massive work-force with new system with mapping and building-up of new skill and knowledge levels.

## Technology Changes: In context of India: What all situations likely to emerge?

India is a massive country in terms of size, population and variety in living expressions. One cannot perceive India as one composite and unified structure in terms of consumer behavior and adaptability to emerging technologies. One can witness a variety of working life styles with least dependency to maximum dependency on

technology, system and tools. A variably large part(s) of population working with varying dependence on Industry 1.0 to Industry 4.0 era techniques and tools can be witnessed in India. This may be true in case of countries with massive population, countries with huge variations in supply and demand, countries where the driving-force of its population-segments is mostly guided by averaging of phenomenal variations. Use of average-phenomena criteria will continue to remain more pronounced in large countries like India, where the future work-force (represented by large population-segments) shall remain in pockets, their job-description, work-environment and skill-set shall remain restricted in different sub-pockets / work-capsules across the overall industrial set-up of the country.

It is envisaged that technological advancement shall induce many structural changes in labour-market with an expected rise in productivity and income level among different stake-holders. However, many of these changes (both at input-stage and at output-stage) may be different in the overall context of India, considering its massive size and diversity in every different living expression.

1. Unipolar or a fixed set or a fixed pattern of supply-demand (goods/services) shall be gradually replaced with variety of supply-demand patterns, based upon faster innovation and up-gradation in the existing systems. This may be true in case of both products and services. In the present note, we have not vividly brought out the aspect of different patterns of demand that may emerge in the market where demand may be driven due to increased need of quality parameters and due to variety in products and services.
2. The in-effect transition together with its outcome will be gradual as introducing new technology may be quick but adaptation to a new environment and transmitting the expected impact of technology among the common masses shall be a long journey and in a sense this will give rise





to hybrid market concept. There will be a mixed trend or hybrid model of businesses with graded layers and structure of technology dependence in different components of value chain. There may be variety of markets led by Industry 1.0 to Industry 5.0 system-concepts and all of them co-existing at the same time, may be within a limited business-component, may be within value-chain of a complete business-cycle. This will lead to a hybrid kind of market with more complexity in consumer behavior. Technology driven future work-force may be concentrated around metros and bigger cities and in their periphery but larger part of nation shall be under the influence of hybrid model (technology-mix population). There may be a mix of developed and under-developed areas within same business/industrial environment in the country and thus may need and be driven by different kinds of policy and developmental framework.

3. Technology exerts its influence on different individuals differently when one works in an office and when one works in off-working hours. Technology prevails everywhere, in office, en route, and at home. The experience of technology gained through cross-learning and self-learning proves to be an important tool. An employee may not remain engaged with one employer as he/she will be engaged in a variety of task matching to his/her skill in different timings of engagement. Fixed timings, fixed engagement, fixed employer shall get replaced with new patterns of varied and customized arrangement.
4. Issue of zero-error or zero-disruption, and highest quality (quality graded product/services) shall gain more importance as we move toward technology-driven perfection in everything, from products to services. Breakdowns, failures and disruptions will become extremely costly. Lots of manpower shall be engaged to address this demand. On frontal end, there may be

less manpower but at the backend, in order to maintain the system, there shall be multiplication of engagements.

As the technology and automation process start getting integrated with business-system life-cycle, there shall be increased fear of disruptions. Disruptions likely to be caused by basic support system like electricity, water supply, housing and health issues. This may in turn create new demand for investment in basic support system and massive investment may take place to secure these needs. Demand for manpower in basic services and issues shall increase by manifold.

5. Robot may replace manpower in a typical automated factory but the extra manpower may get engaged in housing, maintaining and servicing the robots. Automation may relieve manpower engaged in doing a task, but additional manpower shall be required to service and maintain the eco-system of automation. This may require re-deployment of manpower from one domain to another domain that is driven by technology.
6. Human aspirations shall become high and shall drive and prompt quicker innovation with new products and services. Demand for product and services with customization shall increase manifold with higher demand toward uniqueness and disruption free supply. Manpower intervention shall increase in backend to meet this demand.
7. Technology may create new kind of manpower requirement irrespective of position, gender and education background. World will move towards integration and may rise to new variety of co-operation between local governance and universal employers.
8. One can say that cost of capital goods will fall with increased automation. But it may also happen that demand for customized goods shall

increase manifold. Production may move from mass production to customized production, from mass transportation to customized transportation. More customized product and services and manpower shall get engaged in this new domain.

9. Generalization shall move toward specialization and shall develop policies centric toward individuals or a group of individuals.
10. Digitization and Automation shall facilitate large-scale implementation of welfare schemes for better outcome and quality. Planning and formulation of social welfare schemes shall be changed requiring set(s) of different kind of skills among planners and implementers. The present trend of data dependent analysis and outcomes shall be replaced by AI based techniques. AI concepts shall be increasingly used by planners at apex level. Social schemes shall be more driven by technology to listen, hear and see real outcomes and challenges. Design of any social welfare schemes considering India's massive population and demand for high scale operations, need to be embedded with technology to understand, predict and auto correct its design and implementation methodology. It is something like an intelligent control system embedded in the missile launching system, carries out auto correction operation to modulate the pathway and guide the missile into unhabitated areas of ocean in case of emergency. Possibility of introducing such inbuilt course correction design may be embedded in different social welfare schemes operating in domain of health, poverty alleviation, skill & education and other domains. India's massive size, population with diversity

in different fields requires a unique program methodology and structure with appropriate integration of technology to implement any scheme efficiently with optimum utilization of resources. Filing income tax return, ticket booking in trains, extending poverty alleviation benefits etc appears small processes at individual level but when the same action is aggregated at national level through unified and structured portals that induces various complexity in our system on account of massive scale of operation unique to our nation. India is thus blessed to always adopt technology commensurate with its size, population and diversity.

**Conclusion:** To conclude, one may summarize that factor of foresightedness is becoming highly relevant in this fast changing world amid multiple technology interventions. New emerging platforms like **Industry 4.0** shall have its own strength and limitations and pose new challenges and problems to society. Start-ups and new entrepreneurs need to understand the complexity of these transitions from societal and behavioral perspective and prepare themselves with greater insights for developing the problem solving tools further. One can predict about the emerging future businesses of products and services by understanding and analyzing the past trends and transitions that have happened over last few decades. In context of India, the impact may be influenced more by the theory of averages, applying and extending from one segment/area/region/sector to another, from one kind of life-style/social-behaviors to another kind in search of ways and means for validating, substantiating and paving way for new innovations and diversified opportunities in providing and marketing of services to population-segments in times to come in future.





### GJEIS Prevent Plagiarism in Publication

The Editorial Board had used the urkund plagiarism [http://www.orkund.com] tool to check the originality and further affixed the similarity index which is 6% in this case (See Annexure-I). Thus the reviewers and editors are of view to find it suitable to publish in this Volume-10, Issue-3, July-Sep, 2018

## Annexure 1

### Urkund Analysis Result

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Scholastic Seed Inc.

## Role of Neuro Linguistic Programming (NLP) in Training and Development of Employees

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### ABSTRACT

The employees of any organization are its biggest asset, and how they perform impacts the success of that organization. It is no surprise to see organizations and businesses to boost the quality of their employees or human capital. Neuro-Linguistic Programming (NLP) is fast emerging as an accessible technology to develop intense training to help and train the employees to understand themselves, their peers, their seniors, and the customers both professionally and personally. The purpose behind is to improve their working relationships and achieve the desired outcomes so that their company can get a leading edge in the competitive environment. NLP focuses on communication and behavior changes to influence employees in different fields and organizations. NLP techniques are effective in achieving business intelligence and build human capital. An average employee is expected to be an expert with interpersonal communication along with carrying other skills and talents, NLP turns the employee into a skilled professional goals.

**KEYWORDS** Neuro Linguistic Programming (NLP) | Training and Development | Communication | Organisational effectiveness

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## Introduction

Neuro-Linguistic Programming (NLP) is an emerging technology that is fast gaining interest as it carries the techniques to change the thinking and behavior of an individual. Earlier, NLP was considered scholarly in nature, and later it was seen to shift from the academic to commercial worlds. Today, NLP organizations and practitioners are holding seminars and workshops (Sturt et al., 2012). The communication and behavior changes of NLP are being used in different industries to influence people and improve outcomes across varied conditions and populations. NLP is finding an increasing application in various fields and specially to build the human capital of an organization with effective education, training, and development of its employees. NLP techniques can be used to set a model of excellence for the employees and help in improving their soft skills and communication skills, customer care skills with better language patterns and self-management.

## What is NLP?

NLP origin can be traced back to the seventies and focused on the behavioral patterns of human excellence (NLP Academy, 2018). The original developers of NLP were Richard Bandler and John Grinder, who were involved in linguistics and mathematics (Kong, 2011). NLP brings together three fields – Neuro, Linguistics, and Programming (O'Connor, 2001). Neuro refers to how the humans translate sensory conscious and unconscious experiences into thought processes and activate their neurological system. Linguistics relates to how they use language to conceptualize and communicate those experiences others. NLP looks at a person as a mind-body system as stated by Kong (2011).

NLP is a cognitive-behavioral model that works on the sub-conscious mind. NLP employs internal acuties such as memories, emotions and bodily sensations to work as therapeutic and counseling method (Savardelavar & Kuan, 2017). It helps to understand how language and non-conscious

cognitions within an individual help to understand the internal and external events. NLP can be seen as a “manual for the brain” that directs it to achieve the desired results (Joey & Yazdanifard, 2015). Neuro refers to neurology while linguistic refers to language ability and programming means how we arrange our thoughts, feelings. NLP focuses on how the brain connects with the world to influence behavior as stated by Joey and Yazdanifard (2015).

As asserted by Rogozińska (2016), NLP is a varied field based on, methodology, and epistemology. Because of its manipulative approach in earlier years, it was not taken seriously in the academic world. NLP gradually was accepted as a scientific theory in the school of psychotherapy and was employed to get rid of unwanted behaviors as well as deal with many traumas and numerous problems. The first mental map, the Neuro map is based on internal sensations, internal images, sounds, tastes and smells and is the result of the neurological filtering process. The second mental map assigns a language to the internal images, tastes, sounds, smells and feelings and is known as the Linguistic Map (NLP Academy, 2018). The next mental map is the linguistic map that expresses as a behavioral response to the neurological filtering procedures. An individual can be excellent in the process of extricating and replicating the information based on his mental maps.

## Basic Principles and Representation Systems of NLP

There are six basic principles of NLP, and these include You the presuppositions, the rapport, the outcome, the feedback and the flexibility (O'Connor, 2001). An individual himself is one of the most important pillars of NLP, and a lot relies on his skills. While there may be certain beliefs that are presupposed, it is his rapport and the quality of relationships that can be used to evolve and change him. The outcome is what the present situation is and what is desired. Feedback is essential as it lets the individual know how much he has progressed

towards the desired goals. Flexibility allows one the scope the change or adapts if some strategies are not working as asserted by O'Connor (2001).

NLP asserts that each creates a unique internal mental map of his world based on how he gets and filters information through his five senses. Every individual develops a unique mental filtering system that filters the data received by him (NLP Academy, 2018). Interpersonal interactions and experience sharing can be developed more efficiently if the right information is assembled and administered. An individual learns easily, quickly and naturally if the knows how to match his chosen ways of teach (Kong, 2012). For example, a person with a visual representation system will learn more effectively with the help of diagrams and pictures. Thus, the learning became less effective and takes longer time if it is not presented to the learner in his preferred method.

As asserted by Tripathi (2012), Visual (V) modal allows one to think regarding pictures and remember everything as mental images. Auditory (A) modal allows one to think in sounds and recognize people with the help of sounds. Kinesthetic (K) modal implies thinking regarding feelings and recall people from their touch or feel. Audio-Digital (AD) modal means thinking and analyze everything regarding the world (Tripathi, 2012). NLP representation systems can be visual, auditory or kinesthetic or the VAK representation system. The information gets processed through the VAK and is further developed, internalized and utilized. The NLP approach helps to improve knowledge and learning competences as it makes the skills and knowledge more clear and available (Kong, 2012). It is how the knowledge is created and learning developed that helps to enhance learning capabilities. VAK representation systems help the organization to locate new information and assimilate it before application. It is primarily the tacit knowledge that gets transferred from one employee to another, and as more knowledge is created and retained within an organization, it

augments the human capital of an organization as asserted by Kong (2012). NLP meta-cognitive strategies and techniques such as mind-mapping and goal setting can lead to promising results as stated by Farahani (2018) and thus can be useful when training employees or individuals.

## Application of NLP

NLP model is fast gaining importance in the last few decades in different settings of learning and education. There is growing evidence how NLP techniques can help reduce negative emotions and stress among individuals or participants that can impact their performance as asserted by Savardelavar and Kuan (2017). NLP is a sub-division of the psychotherapy, and today it is a recognized mode of psychotherapy that helps to treat individuals with depression (Naim, 2017). NLP helps to understand how people think and feel and employ specific language and behavior to get the desired results. NLP can be used for personal growth and training of employees and workers to for success in business and when achieving organizational goals and objectives. NLP is a combination of communication techniques and strategies used to build learning and bring out a positive personal change. It is looked upon as one of the most influential tools for both personal and professional improvement. (Rogozińska, 2016). NLP is based on the view that an individual is patterned on how his mind-body systems are connected between internal experiences, language, and behavior (Linder-Pelz & Hall, 2007). NLP carries the potential to develop language skills and work on the sensory learning styles of the learners to improve their language learning. As NLP techniques can leave a significant effect on reading and comprehension, these techniques can be used to train workers engaged in learning a foreign language

(Farahani, 2018). NLP thus carries a great potential for helping language teachers to improve the performance of their learners and improve the language skills. A NLP understands the utilization





of different strategies behind the polarity responses among individuals. Human beings carry a tendency to organize themselves in terms of contextual outcomes. Different sets of analogue behaviors lead to different outcomes (Bandler and Grinder, 1982). NLP carries a much broader application and is effective in improving communication skills. Hence it is useful in areas like management training and coaching, where it can educate the managers and employees to improve their communication skills to influence others (Joey & Yazdanifard, 2015). NLP's strategies are welcomed in various fields of education, training, and development. The techniques can help improve the understanding of the thought processes of an individual and help him improve his skills, knowledge, and confidence (Kong, 2011). According to Naim (2017), practitioners are now successfully applying NLP in other areas like coaching, teaching, HRM, selling and management.

Although NLP has been there for decades, very little has been done on how it can be used to develop HC in organizations. Today, it is well understood that NLP may be used as a systematic means of charting subjective experiences and transform those experiences for learning or development of knowledge (Kong, 2012). Thus, there is no denying that NLP can be used to enable the learning competences in organizations and encourage the growth of knowledge. NLP can be integrated into different realms such as psychotherapy, education, business, law, and medicine. As it helps to change responses to stimuli, it helps people to regulate their environment and respond better (Steinbach, 1984). An effective NLP interaction includes establishing rapport and gathering information about the participants. The verbal patterns and non-verbal responses can be observed, and specific techniques that can alter his responses can be integrated into the individual's daily life to improve outcomes.

NLP can be applied in some areas and various fields of business. It helps to improve the competencies of self and others. When applying NLP concepts,

the trainers understand themselves and those who are being trained better. Thus, one can achieve the desired emotional state in an individual (Tripathi, 2012). NLP is a useful tool in different businesses as it can improve the interpersonal and intrapersonal behavior. The employees can achieve their targets because of better report and understanding of each other. NLP allows one to comprehend the emotional and interactive patterns of the workers and thus improve their interpersonal and intrapersonal skills. Human capital (HC) is the cumulative knowledge and skills of the workforce of an organization. Human resource management makes a careful selection of employees for higher productivity. Poor quality of HC or departure of quality HC is always a threat to any organization.

This is why firms and organizations not only work at retaining quality HC but also boost the human quality by improving their skills levels and knowledge (Kong, 2012). Organizations need a higher level of HC to remain competitive in a business environment, and one good way to keeping those higher levels is to boost knowledge and learning of its workers.

## How NLP Trains Employees

Employees or workers when they join an organization build the human capital of that organization. A superior human capital means stronger organization and higher productivity.

The human resource managers look for the best workers to build the human capital and achieve competitive advantage. NLP is seen as an effective way to boost the human capital of an organization or company. NLP offers a framework to understand how people build subjective experiences and how to reconstruct that experience for the desired outcome. NLP shows one how to learn something more useful to get the desired change. One may need to unlearn and relearn a style of communication to build a rapport with others as well as exert influence over others. Subconscious incompetence, conscious incompetence, conscious competence, and

subconscious competence are the four levels of teach (Gibson, 2009). NLP works on the communication style to build rapport and increase productivity among employees. The employee works on verbal and nonverbal language to influence positively when interacting with others as stated by Gibson (2009).

Knowledge and learning are different elements but are closely related when it comes to organizational learning. Different workers enter an organization with different skills sets and levels of knowledge. However, all of them carry the capacity of learning that can be evolved with innovative and distinctive ways. Learning can take place by interacting, practicing and studying (Kong & Farrell, 2012). Continuous organizational knowledge, learning, and memory can help develop dynamic knowledge and unique learning capabilities among employees. According to Savardelavar and Kuan (2017), the NLP model of dysfunctional thoughts asserts that anxiety and stress are the results of self-restructuring of the dysfunctional thoughts and misinterpretation of the thoughts. NLP model can help the individual to observe the situations from a different perspective and self-regulate the mind and body. NLP model can this help individuals and employees to cope with the emotional hardships in their work areas.

NLP works on the visual, auditory or kinesthetic modes used by the workers and improves their soft skills (Naim, 2017). NLP allows the workers to set, understand and achieve their professional and personal goals. The workers or employees are asked to create maps represented by visual, kinesthetic, auditory, olfactory and gustatory senses. The purpose behind is to build a model of what the employee is doing currently and what should be done based on examples in a specific skill that requires both internal cognitive and behavioral essentials. NLP approach allows one to understand the learning and skills of those employees who are excellent performers and emulate the same skills and knowledge for others. As learning is the first step to build knowledge, NLP primarily focuses on teach (Kong, 2012). NLP

assumes that people or employees are creative and capable inherently. Their behaviors and knowledge can be changed accordingly to reach the desired outcomes. The self-learning ability of the employees can be used for self-development and personal achievement and thus boost HC development mas stated by (Kong (2012).

According to Kong (2012), NLP can help employees to learn more naturally within a group and make the learning experience to be more enjoyable and successful. It helps to create a positive environment for learning as individuals share knowledge and information through interactions and communication. An organization can attain a competitive advantage only when its workers or employees trust each other and work cohesively. NLP techniques can help support rapport, motivation and build favorable language patterns (Kong, 2012). As stated by Linder-Pelz and Hall (2007), NLP can facilitate organizational knowledge and learning capabilities. The structured and systematic means behind NLP help to map subjective experience and create a transformative learning and knowledge development for the people.

## Set a Model of Excellence

Modeling is the core activity in NLP and is the process of extricating and replicating the language structure and behavioral patterns of an individual who is excellent at a given activity. NLP Modelling was born by studying the behavior of the geniuses based on language-based models (NLP Academy, 2018). NLP modeling excellence extended as training courses that worked towards commercial and personal benefits of an individual and the organization. NLP focuses on how the brilliant and geniuses achieve their excellent performance and can achieve outstanding goals. Their way of thinking and behavioral approaches can be studied and modeled to be followed by others to achieve the same leave of excellence. This is referred to as NLP modeling (O'Connor, 2001). NLP modeling can train a mediocre individual to follow someone who





is excellent at a given activity to achieve higher skill levels in his field. With the help of NLP, it is possible to follow the patterns of excellence intrinsic in an outstanding individual. NLP developers can train employees and support their future development. It can work as a tool of change within an organization and when working with individuals and groups. NLP can help them become more effective in whatever field they are such as personal development, sales, marketing, education, leadership, and coaching (NLP Academy, 2018). NLP can enhance work performance by working on human interaction and growth potential. Today, one can find NLP metine4e din different subjects and fields of learning such as negotiation, management, psychology, parenting and accelerated learning.

### Improving Soft Skills and Communication Skills

Superior soft skills are signs of a high level of emotional intelligence and employees with soft skills are always preferred by organizations because of the promise of better performance. Soft skills mean better capabilities with problem-solving, communication, reliability, trustworthiness, and teamwork (Naim, 2017). Soft skills can be acquired with further training, workshops, and counseling. NLP, as specialized psychological training, is used by an increasing number of organizations to improve their workforce and human capital. The purpose behind is to strengthen the company position and relationship (Naim, 2017). NLP enjoys great popularity for improving communication and personal development. This is why the concept and techniques of NLP have become the foundation of many training programs used by professional practitioners in various companies (Rogozińska, 2016). With the new development or coaching, managers and workers and different practitioners like consultants, doctors, and lawyers are able to achieve peak performances. The focus is on personal development and gain more knowledge for both personal and professional development. There is a higher focus on interpersonal skills and

soft skills advancement along with communication training (Naim, 2017). NLP programming works on psychology, communication, learning and personal development of the workers. The aim behind is to develop healthy patterns and behaviors so that the workers can move towards higher potential. They develop the capability of understanding the thinking patterns of one and others (Naim, 2017). NLP practices and training sessions can lead to develop priority soft skills and work on strengths and weaknesses. NLP leads to effective teamwork, better problem handling, communication, and customer service as asserted by Naim (2017).

### Improving Management, Interpersonal and Intrapersonal Skills

Organizations have been using NLP skills and principles successfully to boost their human capital and develop a capable team of workers. The firm provides stress management programs and mental processes for their staff to increase in self-awareness and improve their relationships with others (Joey & Yazdanifard, 2015). Better self-management and communication skills help to improve their emotional intelligence and maintain a good relationship with their seniors, colleagues and the customers. NLP techniques can help build interpersonal and intrapersonal skills as they facilitate the appropriate emotional states within people by working on their congruent and incongruent states. The techniques help to build an environment of trust, respect, and confidence and increase rapport (Tripathi, 2012). The workers get feedback in a way that leads to improved performance. Even when one is benchmarked on a personal level, they can still learn from others. The workers can understand the unique culture of their organization and their colleagues as stated by Tripathi (2012). In order to advance the NLP skills, the managers need to recognize the four core principles. The main principles are to develop the rapport technique, what is to be achieved, make effective use of senses and develop behavioral flexibility regarding thoughts and actions

(Joey & Yazdanifard, 2015). One can transform their behavior or develop a new skill based on the main principles. However, one has to employ those principles daily in their life and practice them on a regular basis to see effective changes.

## Changing Language Patterns

NLP generally deals with the non-verbal communication and body language. It is the pace, pitch, tonality of the communicating party that is an essential tool in functional communication. The non-verbal communication and body language reveal the hidden feelings and intentions of the speaker. NLP trainer can work on the conscious thought process of the workers and make progress in their way of non-verbal communication (Tripathi, 2012). The significance of neuro lies in listening and observing the language pattern of people. The NLP trainers can change the language patterns appropriately to help achieve specific objectives in real-life situations (Tripathi, 2012). It is a commonly known fact that people are friendlier with the like-minded and when they become a good communicator, they can develop a good rapport with each other. Thus, NLP techniques can help employees to come together and build better communication skills and rapport with each other. Thus, having such employees is beneficial for any organization. NLP is concerned with how to model successful performance by processing the incoming information to create the current experience.

## Improving Customer Care Skills

Handling customers is an essential part of services provided by any organization. It is the customer satisfaction and loyalty that can boost the reputation and profits of an organization. NLP principles can help improve employee's engagement with the customers and build a positive experience. How the employee communicates with the customer will design the customer experience (Luzajic, 2014). The employees must understand their role and responsibilities from the perspective of the strategic vision of the company. What is new here is how

the visual, auditory and kinesthetic senses can integrate to bring the desired outcomes among the workers. Better understanding and stronger internal communications among employees can help them to see their specific role in the organization. The line managers can design an event to communicate the importance of a quality customer care. Manuals, videos, and active training sessions can teach the employees about customer service and develop the right competencies. Employees can be given examples of exceptional performance of customer care and invite the customers to discuss their positive and negative experiences (Luzajic, 2014). Ongoing support from mentors, relevant customer feedback can keep the employees motivated to perform and achieve what is required. Customers are always looking for a consistent and positive experience with any company.

NLP can help develop the right skills within an individual in relation to other people and help him understand his thought process and the thought processes of others in a much better way. Gradually, he develops the skills, knowledge, and confidence that improve his personal and professional life (Linder-Pelz & Hall, 2007). NLP motivates interactions between organizational members and thus aligns the learning processes at the individual, group and organizational level. By modeling after a successful performance, NLP shows that if one employee can do something successfully, the other employee can learn to do it. Employees can duplicate success by understanding the thoughts, actions, and feelings of a successful worker (Gibson, 2009).

## Conclusion

NLP is a model based on the notion that linguistic patterns can work as transformational psychotherapy. New behaviors can be created by adjusting the effects of language. NLP programming strategies help the employees to understand their behaviors and the behaviors of their colleagues and create new behaviors with the help of improved communication. Thus, NLP can help employees to build rapport with





colleagues and potential customers with improved communication and management skills. With an understanding of neurology and linguistics, one can understand their own behavior as well as empathize with others. NLP creates a positive environment for employees so that they can achieve better outcomes and respond effectively to colleagues and customers. Today, NLP is not only used for personal development of employees but also in different areas and roles such as sales and marketing where one needs effective communication techniques.

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The Editorial Board had used the ithenticate plagiarism [<http://www.ithenticate.com>] tool to check the originality and further affixed the similarity index which is 4% in this case (See Annexure-I). Thus the reviewers and editors are of view to find it suitable to publish in this Volume-10, Issue-3, July-Sep, 2018

## Annexure 1

Role of Neuro Linguistic programming in training and development of employees

ORIGINALITY REPORT

4%

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# Why consumers engage in e-WOM? : Literature Review

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## EDITORIAL BOARD EXCERPT

Initially at the Time of Submission (ToS) the paper had 23% plagiarism and after rectification it was reduced to 18%, which is an acceptable percentage for publication. The editorial board has observed that the authors (Manpreet & Subodh) have carefully investigated the literature understanding the **motivational aspects of e-wom users** over a decade. Their work presents interesting similarities and differences between the traditional word of mouth communication and e-wom. This study presents interesting implications for the marketers to enhance brand value, loyalty and influencing consumer choices using e-wom. However, the study could be further enriched by conducting survey on the internet users, substantiating it with empirical findings. By and large all the editorial and reviewer's comments have been incorporated in this paper and further the manuscript has been earmarked and decided under "Review of Literature" category.

**ABSTRACT** In recent years, a large number of consumers engage in word of mouth communication by sharing their product or service experience on the Internet. Such online word-of-mouth exchanges may be contained in consumer reviews, blogs, forums, or threaded discussion boards where marketers interact with the consumers, or where consumers interact with each other. Recognizing that many online exchanges occur between people who have no prior relationship, it is important to understand why these exchanges take place. This extended form of word of mouth known as electronic word-of-mouth (e-WOM) has received greater attention from researchers. Most research scholars have studied the effectiveness of e-WOM communication and examined the process by which such e-WOM communication influences consumer purchasing decisions. However, the issue of consumers' engagement in e-WOM has received limited attention. We still do not fully understand what motivates consumers to participate in e-WOM in online platforms. The purpose of this paper is to get an insight into their motivations by reviewing the relevant literature

**KEYWORDS** Electronic word of mouth | Online word of mouth | e-WOM

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## Introduction

The advancements in internet technologies have changed many industries but few have changed as drastically as marketing. From a marketing perspective, gaining a better understanding of how these technological advances impact our lives and our online behaviors is important considering that consumers often use other marketing managers and consumers as sources of information. Historically, marketers have recognized the power of WOM communication to inform, motivate, and influence opinions, purchases, and recommendations for products and services. In the era of the digitalized world, the traditional word-of-mouth communication has been extended to various electronic platforms, such as review sites, social networking sites, blogs, online discussion forums, etc. Everyone can share their opinion and experience related to products with complete strangers who are socially and geographically dispersed. Gaining a better understanding of these online word-of-mouth communications is increasingly important as consumers shift their reliance to online information for decision-making (Dellarocas et al., 2003). This extended form of word of mouth(WOM), also known as electronic word of mouth (e-WOM) or online word of mouth, has become an important factor in shaping the buying behavior of the consumer.

Although the expansion in the number of websites where consumers can read and write online product reviews, and vent their grievance and opinions about a variety of goods and services, is considered one of the main developments on the Internet from a consumer behavior view. Yet relatively few people contribute such relevant online information; the majority of them simply consume it. Nielsen (2006) proposed a '90-9-1' rule: 90% of users are silent lurkers i.e., they read or observe but don't contribute, 9% users are occasional contributors, and only 1% of users account for most contributions. Although passive users thus make up the vast majority of people using the Internet, the easy transmission of e-WOM often enables it to spread far further than

offline, verbal customer conversations, particularly because online communications may be accessible to unlimited numbers of potential readers.

Due to a large number of websites, consumers have access to information resources, before, and even after, making different buying decisions. The level to which consumers rely on such websites for information has been the focus of previous research. WOM can be negative or positive and comes from a range of sources. This huge amount of information has proved to influence consumer behavior generally. Other research showed e-WOM to be a significant power that affects consumer loyalty and purchase decisions. Most of these different research approaches explore the impact of e-WOM communication. However, research on what motivate consumers to engage in e-WOM remains relatively limited. These studies provide a reasonable start to exploring further the motives behind e-WOM communication in a way that does not necessarily approach e-WOM behavior as an individual rational phenomenon.

In our study, we attempt to identify the key factors motivating consumers to engage in e-WOM. The paper is structured as follows. First, we define e-WOM communication and compare the concept with the traditional WOM. Second, we describe the research procedure. Third, we present a review of the literature along with a summary of prior research on motivating factors for e-WOM engagement. Finally, we provide implications and scope for future research into the factors affecting e-WOM engagement.

## Conceptual Background

### Electronic Word of Mouth

The technological revolution has changed the way consumers search for products and services related information, they seek reviews from both current as well as past consumers, and then decide whether to purchase or not. Thus, electronic word of mouth communication is nowadays considered as an important part of the consumer decision-making process (Moran et al.,2014). According to Moran





& Muzellec (2017) emergence of various social networking sites and microblogs has significantly increased consumers ability to discuss brands, offer advice and share their own experiences with their friends or strangers through electronic WOM (e-WOM). According to Cheung et al. (2009) consumers exchange their product or services related experiences with their friends mainly to endorse or express disapproval of the products or services which they have experienced and from the users' point of view, e-WOM provides them a balanced and truthful assessment of the brands.

Many authors have defined the term e-WOM. Henning-Thurau, T. et al. (2004) defined e-WOM as "any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions over the Internet". Litvin et al. (2008) termed e-WOM as "all informal communications directed at consumers through Internet-based technology related to the usage or characteristics of particular goods and services, or their sellers" (p. 461).

According to Lee et al. (2013), e-WOM is a "WOM system that exists in virtual space in which messages are sent or received related to products or services, and which users experience through chatting or online boards". Noh et al. (2013) defined e-WOM as "interpersonal communication among consumers regarding a company, product, or service through Internet-based technology".

Ho & Dempsey (2010) termed e-WOM as the act of forwarding electronic content and e-mavens as the Internet users, who are more ready to engage in e-WOM. The similarity between e-mavens and market mavens, a term introduced by (Feick & Price, 1987) can be easily observed. Market mavens are people who constantly acquire and spread general marketplace information. E-mavens, on the other hand, are people who acquire and spread information via electronic platforms such as email (Phelps et al.,

2004). According to Moran & Muzellec (2017), Digital consumers who proffer advice on brands are not anymore much the same as 'market mavens' with a plentitude of marketplace knowledge but anyone having access to the social media websites.

## WOM and e-WOM

### WOM

Word of mouth is one of the most established ways of conveying information (Dellarocas, 2003), and early scholars have defined it in many ways. Arndt (1967, p. 3) defined it as an "oral, person to person communication between a receiver and a communicator whom the receiver perceives as non-commercial, concerning a brand, a product or a service". Westbrook (1987, p. 261) defined it as "all informal communications directed at other consumers about the ownership, usage, or characteristics of particular goods and services or their sellers". Harrison-Walker (2001, p. 63) defined it as an "informal, person-to-person communication between a perceived noncommercial communicator and a receiver regarding a brand, a product, an organization, or a service". Similarly, (Litvin et al., 2008) described WOM as communication between consumers about a product, service, or company in which the sources are considered independent of commercial influence. Such interpersonal communication provides the individual access to information related to the consumption of the product or service that goes beyond the information provided by the companies through advertising and thus involuntarily influences the decision-making of the individual (Brown et al., 2007).

Truly, WOM has been perceived as a standout amongst the most influential sources of information transmission. The significance of WOM in marketing theory and practice is undisputed. The impact of the intensity of WOM on consumer decision making is well established in the academic literature (Steffes & Burgee, 2009). Alluding to past literature, WOM is considered more effective than many other marketing tools and conventional advertising media

(Cheung et al., 2008). Previous research shows that consumers regard WOM more reliable medium than other traditional media (e.g., radio, television, print advertisements, etc.) (Cheung & Thadani, 2012). As a result, it is considered one of the most persuasive sources of information about products and services. Therefore, it is considered an essential area for marketing research.

Traditionally, WOM communications occurred between individuals or small shared groups who exhibited strong tie connections for e.g. between close friends, family members or relatives. In traditional word of mouth communication the message emanates from credible sources who share their personal experiences with products or brands and thus it was considered as important, truthful, and reliable (Wirtz & Chew 2002). However, today's world of digital technology driven by ease of accessibility and virtual interconnection is giving it new significances. Traditional WOM has been joined by electronic WOM (e-WOM), also known as Internet WOM or online WOM. e-WOM communication can take place in various settings. Consumers can post their reviews, opinions, recommendations, and comments about products and brands on consumer discussion forums, review websites, social networking sites, retail websites, e-bulletin board systems etc. The opinions and recommendations of others still constitute one of the most influential and persuasive means of shaping consumer preferences and buying

behaviors, yet the ease of accessibility, popularity, growth, influence, and pervasiveness of the online medium exponentially multiply the power of WOM. Undoubtedly WOM, in its new diffusion in the digital context, is experiencing a renaissance.

### Similarities

Similar to WOM, e-WOM has more relevance, greater empathy and higher credibility for consumers than the sources of information which are induced by the marketers and several websites have been launched to facilitate it (Bickart & Schindler, 2001; Gruen et al., 2006). Numerous online companies have additionally included e-WOM as a supplementary component on their sites. These companies also use e-WOM as a cost-effective and convenient alternative to advertising. For e.g. online retailer Amazon.com does not advertise through customary methods but instead uses e-WOM because of its apparent lack of bias among consumers (Sen & Lerman, 2007). e-WOM is also used by consumers for similar reasons as traditional WOM, including information gathering to reduce risks, information storing to compare with other information sources and information sharing in order to influence others. Electronic word-of-mouth is therefore viewed as an extension of traditional WOM.

### Differences

e-WOM differs from traditional WOM in many ways.

Basis	WOM	e-WOM	Source
Speed	Diffusion speed is low compared to e-WOM	Diffusion speed is very high because of large number of electronic mediums availability.	Sun et al. (2006), Cheung & Lee (2012) Li & Hitt (2008), Dellarocas (2003); Steffes & Burgee, (2009)
Convenience	Less convenient	More convenient	Sun et al. (2006), Schindler & Bickart (2003).
Reach	Reach is limited to small shared groups.	It has unlimited reach as there is no geographical or time restriction.	Cheung & Thadani (2012), Kiecker & Cowles (2001), Gelb & Sundaram (2002), O'Reilly & Marx (2011),
Medium	Person to Person or Face to Face	Electronic or Digital formats	Hennig-Thurau, T. et al (2004), Stauss, B (2000), Park and Kim (2008)
Influence	Less influential	More influential	Sun et al. (2006), O'Reilly & Marx (2011), Park & Kim (2008)
Accessibility	Not easily accessible and cannot be archived.	Easily accessible in much large quantity and can be archived for a longer period of time	Chatterjee (2001), Park & Kim (2008), Hennig-Thurau et. al., (2004), Park & Lee, (2009), Lee et. al(2008)
Anonymity	There is self-disclosure and thus less anonymity	It offers greater anonymity	Sun et al. (2006), Bronner & de Hoog (2011), Kiecker & Cowles (2001), Gelb & Sundaram (2002)





## Participation in E-Wom

### Review Procedure

Relevant academic and peer-reviewed journals that are related to motives for engaging in e-WOM are identified by using two methods. Firstly, we conducted a systematic electronic search using the keywords 'electronic word of mouth', 'online word of mouth' and 'e-WOM'. Secondly, only those Journals were selected which are listed in the Journal Quality List, Sixty-second Edition. The scope of the study is limited to the timeframe of 2008-2018.

### Review of Literature

**Cheung & Lee (2012)** identified egoism, collectivism, altruism, and moral obligation as the four perspectives that explain why consumers engage in e-WOM on online consumer-opinion platforms. The authors believed that if a consumer wants to gain a reputation in an online consumer-opinion platform, he has a higher propensity to spread e-WOM. Another egoistic motivator found by them is reciprocity, which is likewise considered as a benefit for individuals to participate in the social exchange. Also, committed electronic network members participate in information sharing because they think that such behavior is best for the community. Altruism goals also motivate consumers to volunteer themselves to contribute their knowledge to online consumer reviews without expecting direct rewards in return. Sense of Moral obligation was also suggested as a motivating factor. Lastly, they discussed knowledge self-efficacy as a self-motivator for knowledge contribution in online platforms. Their findings suggest that sense of belonging to the community, reputation, and enjoyment of helping others are the most critical factors that encourage consumers to share their experiences with others in the context of online consumer-opinion platforms.

**Hornik et al. (2015)** provided a theoretical framework and empirical evidence based on Dynamic Social Impact Theory and related concepts from rumor literature. Drawing from existing literature,

the basic motives summarized by them are:

- The tendency to undermine the “top dogs”
- Malicious joy
- Jealousy
- Draw attention
- Dissatisfaction
- Even a minor negative rumor will find consumers' justification without clear evidence.

They suggest that consumers are assumed to be selective transmitters of WOM i.e., they disseminate negative information faster and to more recipients compared to positive information. Also, as research in psychology suggests, negative information is pondered upon for longer time spans than positive or neutral information and is subject to more distortion along the diffusion process.

**Moran & Muzellec (2017)** proposed a framework to describe how consumers evaluate e-WOM credibility. The 4Cs of e-WOM Credibility proposed by them are 1) Community (Tie Strength, Receiver Characteristics), 2) Competence (Prior Expertise, Product/Service Characteristics), 3) Content (Message Clarity, Message Valence), and 4) Consensus (Receiver Judgement, Review Consistency). According to the authors, e-WOM source and e-WOM message credibility each consists of two different components, which when taken together leads to the 4Cs of Credibility. They suggest that source credibility is determined by the connection amongst sender and recipient (community) combined with their individual experience levels (competence), while message credibility depends on the substance of the communication (content) and how it influences the recipient (consensus). The eight credibility factors of e-WOM suggested in this study are related to e-WOM shared among SNS.

**Lee et al. (2013)** their interview results show that a large number of people share information on

products or services with others in the open-market context, to satisfy their information sharing desire. They proposed self-presentation desire as another antecedent of e-WOM. Their findings indicate that people want to receive economic or psychological rewards related to their e-WOM activities. They also proposed that an individual's open-market satisfaction is another antecedent of e-WOM. According to the interviews in their qualitative study, both satisfaction and dissatisfaction with transactions are factors of e-WOM activities in the open-market context. The last antecedent discussed by them was Open-market loyalty which indicates an individual's psychological attachment to an open market of interest (i.e., open-market provider). The results indicate that information-sharing desire, self-presentation desire, open-market reward and open-market loyalty have a positive effect on e-WOM activity. They did not find any significant effect of open-market satisfaction on e-WOM activity.

**Reichelt et al. (2014)** their study offers an empirical and theoretical validation of how specific usage and social functions of e-WOM affect attitudes toward and intentions to read e-WOM. They used a covariance-based structural equation model (LISREL) with data compiled from German readers of online brand community content, in the context of an automotive market. According to them, Consumers' attitudes toward reading e-WOM content have strong, significant effects on their intentions to read e-WOM, also the attitude toward e-WOM reading increases with improved beliefs about the usage and social functions that e-WOM aims to fulfill. Their results indicate that the utilitarian functions that individuals seek to satisfy through e-WOM depend on different dimensions of credibility. Of the three credibility dimensions, trustworthiness was emerged as a predominant dimension, having a positive impact on both the usage and the social function of e-WOM. Conversely, the expertise of e-WOM contributors had a slightly positive impact on the utilitarian function. Expertise alone cannot serve any social function. However,

the perceived similarity between e-WOM readers and e-WOM sources helps meet the social function, whereas similarity cannot affect the utilitarian function of e-WOM.

**Khammash & Griffiths (2011)** they presented the 4 existing motives i.e., Decision-involvement motives (Risk reduction, Reduction of search time, Dissonance reduction), Product-involvement motives (Learning how a product is to be consumed, Learning what products are new in the marketplace), Social-involvement motives (Determining social position, Belonging to a virtual community) and Economic-involvement motive and the 4 new motives for reading online customer reviews. i.e., Self-involvement motives (Fun and enjoyment, Curiosity and broadening of horizons, Compulsive habit and boredom, Improving writing style and language skills), Consumer empowerment motives (Trusted opinions, Non-expert opinions, Unique experiences), New social-involvement motives (Preferred authors, Mediated advisor, Understanding people, Reading responsively) and lastly Site administration motives (Examining review accuracy and availability, Offering general help to the site management team). Their findings indicate that members of online opinion portals are motivated to read consumer reviews to find unique customer experiences, to reduce risk in their buying decision, to learn about new products in the marketplace and those products that require a higher level of involvement. In addition, they aim to reduce their searching time to find products they intend to buy. Finally, portal users read online reviews to seek enjoyment and have fun.

**Zhang et al. (2010)** examined the effects of e-WOM valence on e-WOM persuasiveness. The results of this research show that consumers do not give equal weights to positive and negative product reviews. Based on Regulatory focus theory, this study suggests that the consumption goals that consumers associate with the reviewed product lead to bias in consumers' evaluations of positively and negatively valenced product reviews. Consumers





show a positivity bias for products associated with promotion consumption goals, whereby they rate positive reviews as more persuasive than negative ones. On the other hand, they show a negativity bias for products associated with prevention consumption goals.

**Park & Kim (2008)** they conducted an experiment to explore how consumer's process online consumer reviews depending on ability related factor i.e. the level of expertise. Specifically, focusing on the positive online consumer reviews, they examined the effect of review structure – the type and the number of reviews – on consumer decision making. This study examined how an ability-related factor (the level of expertise) affects the processing of different types of messages. Integrating the cognitive fit theory and ELM, the authors examined that consumers with different levels of expertise prefer different types of review messages (based on cognitive fit theory), and the effect of cognitive fit on purchase intention is stronger for experts than for novices (based on ELM). This study shows that the number of reviews is a more important factor for novices than for experts.

**O'Reilly & Marx (2011)** In addition to relying on customer reviews and the advice of others online, this study identified three other factors affecting the acceptance of online WOM: (1) enhancing their self-worth; (2) avoiding risk; and (3) negativity bias. According to the authors, online consumers have confidence in the validity of consumer-provided information online, enjoy interacting with other consumers online, and rely on a network of consumers with marketplace knowledge or expertise to guide their purchase decisions. Further, their study suggests four factors that affect online WOM credibility: 1) polarity of posts and their quantity, 2) logic and articulation of posts, 3) corroborating sources, and 4) participants' previous experience with the seller.

**Bronner & de Hogg (2011)** suggested five main categories of motivations for contributing: (1) self-directed, (2) helping other vacationers, (3) social

benefits, (4) consumer empowerment, and (5) helping companies. Their study suggests that motivation influences the type of site chosen by vacationers and the way in which they express themselves on review sites. According to the authors, Vacationers who post and are having a largely other-directed motivation prefer consumer-generated sites, comment on more aspects of a vacation, post mainly positive reviews, are more inclined to express themselves by a combined use of text and ratings and contribute more to sites accessible to other vacationers. Vacationers who post and are having a largely self-directed motivation, prefer marketer-generated sites, comment mainly on a limited number of aspects of a vacation, post more negative reviews, and contribute more to sites not accessible to other vacationers.

**Munzel & Kunz (2014)** based on the literature about social capital, social exchange theory, and transformative consumer research, the authors carried out a study of 693 contributors on a hotel review site. They expanded the categorization proposed by Sundaram et al. (1998) and proposed in a division of motives into four groups: positive consumption experience, negative consumption experience, social bonding, and individual benefit. Through the integration of various customer-to-customer interactions, the results reveal a three-class structure of contributors on review sites: - Lurkers, Creators, and Multipliers. These three groups of individuals show distinct patterns in their preferred interaction activities and the underlying motives. The lurkers are significantly less interested in most of the activities. They are primarily first-time writers. The creators are individuals who articulate themselves after an experience via online reviews. They are mainly driven by altruistic motives. The multipliers are a group of contributors who engage in first-order e-WOM via online reviews, and who amplify the scope of e-WOM by retransmitting these reviews throughout their social network. Their research shows that individuals who are reading other people's contributions perceive a social debt and feel obliged to give something back to the community.

**Ho & Dempsey (2010)** based on a three dimensional theory of interpersonal behavior FIRO (Fundamental Interpersonal Relations Orientation) proposed by Schutz, the authors identified four motivating factors: Inclusion-the need to belong, the need to be different; Altruistic-the need to be altruistic, and Control - the need for personal growth. The results showed that the interpersonal need for inclusion and affection were key motivators for engaging in online WOM communication (forwarding online information). The only exception was the control motivation, which although significant did not positively affect the online forwarding of information. First, of the two motivations underlying the concept of inclusion,

only individuation was positively related to the forwarding of online content. The motivation of the need to belong did not significantly influence the forwarding of online content. This study identified a positive relationship between altruism and e-WOM. The results also suggest that individuals who spend more time online, forward more information to others in their social network. The authors believe that people with high trait curiosity enjoy the experience of learning and therefore are more likely to consume online content.

Summary of Motivating factors for Participating in e-WOM

Authors	Motivators
Cheung & Lee (2012)	Egoism (Reputation, Reciprocity), Collectivism (Sense of Belonging), Altruism (Enjoyment of Helping), Principlism (Moral Obligation) and, Knowledge Self-Efficacy.
Lee et al. (2013)	Information-sharing Desire, Open-market Satisfaction, Self-presentation Desire, Open-market reward Open-market loyalty
Khammash & Griffiths (2011)	Decision-Involvement, Product Involvement, Social-Involvement, Economic-Involvement, Self-Involvement , Consumer-Empowerment, New Social Involvement and Site-Administration Motives.
O'Reilly & Marx (2011)	Enhancing Self-Worth, Avoiding Risk, Negativity Bias.
Bronner & de Hoog (2011)	Self-Directed, Helping Others, Social Benefits, Consumer Empowerment, Helping Companies.
Ho & Dempsey (2010)	Inclusion (need to belong, individuation), Control (personal growth initiative), Affection (altruism), Curiosity, Content forwarding, Content consumption





## Conclusion

In our review of the e-WOM literature, we have seen that e-WOM is an extension of the historically established concept of Word-of-mouth on the Internet platform. The traditional marketing approach is being amended and changed to use the intensity of the Internet. The proliferation of internet forums, social media, and web-based communities have given more power to consumers; as a result, many consumers make use of e-WOM either directly or indirectly before making their final purchase decision. They also use e-WOM in the post-purchase process to share their personal experience with the product or brand and to voice their sentiments. Consumers have different motivations when they engage in e-WOM creation.

Emotional factors are considered one of the most important reasons for consumers' participation in e-WOM. Previous scholars have found that e-WOM creates a feeling of inclusion or need to belong, particularly when sharing positive content. Similarly, self-presentation and social involvement desire play a key role in the generation of e-WOM. Further, e-WOM participants can be grouped into 2 categories i.e. e-WOM readers (recipients) and e-WOM writers (senders) on the basis of factors that motivate their behavior. Writers post e-WOM basically to share their own experiences and opinions about the products or brands, thus information sharing desire plays an important role in e-WOM creation whereas readers seek e-WOM because they need information to avoid any risk or uncertainty associated with their purchase. Both readers and writers are motivated to engage in e-WOM due to social ties. In this manner, consumers show a greater tendency to engage in e-WOM when they can recognize themselves with other members of the group and share similar attributes. Other motivating factors found by previous scholars are altruism, desire for personal growth, avoidance of risk, and the desire to enhance their own self-worth. Consequently, monetary rewards play a minor role in e-WOM communications. Nevertheless,

in this context, it can be stated that these Internet-based word-of-mouth experiences will increase the likelihood of users searching for information and their total time spent on information search.

## Implications

e-WOM acts as a direct feedback to marketers. They can utilize e-WOM for creating awareness about their product or services, improving sales and other performance parameters to strengthen their brand value, and build customer loyalty. They can use both positive and negative e-WOM to improve their product and service and address consumer grievances. Technological advancements and innovations of smart devices and new ways of communication, such as instant messaging apps on smartphones, are the emerging trends that will have an impact on how consumers and marketers will manage e-WOM.

## Scope for Future Research

This study presents a review of literature in the field of factors that motivate consumers to engage in e-WOM. We conducted a comprehensive literature analysis and determined the most relevant publications in the field on the basis of journals mentioned in the Journal Quality List, 62<sup>nd</sup> edition. The results provided may serve as a framework for further research. In addition, relevant gaps are identified for exploration in future research projects. The majority of existing papers in the field concentrate on the sender of e-WOM communications thus future research needs to further explore e-WOM seekers' motivations. Among other alternatives, research could focus on how contributions by paid reviewers affect the trust level of e-WOM recipients. Further investigation is recommended into the unique phenomenon of negative reactions to positive commercial information. Investigating whether novices or experts are more sensitive to negative reviews will be an interesting future research area. Also, how the dissemination influences actual behavior of consumers could be examined. Another future research direction is to examine the

characteristics of online content which are more readily forwarded by Internet users to others.

As a limitation of this study, it must be stated that analysis is confined to the timeframe of 2008 to 2018 of relevant literature databases using three keywords. However, most of the relevant research papers are covered in these databases and were taken into consideration.

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## Annexure 1

### Why consumers engage in e-WOM? : Literature Review

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## Message from Guest Editor Desk



It is a matter of great pride and immense pleasure to bring out this special issue of Global Journal of Enterprise Information System which is a culmination of selected papers of the First International Conference on Digital Entrepreneurship: Prospects, Perils, Dividends and Challenges (ICDE 2018), hosted by School of Management, Presidency University, Bengaluru on April 20-22, 2018. The conference held for a spread of two days has prone many newer facets on the broad theme of Entrepreneurship and its related peripherals of Strategy, innovation and Technology which are the three key pillars of a company seeking to differentiate it from others and for an economy to be globally competitive. These can also be seen as enmeshing gears which provide the necessary traction to academia and corporate to achieve a competitive advantage and a country to progress towards sustainable development.

The particular issue has selected papers ranging to various aspects of digital entrepreneurship. The first paper in the series has presented a clearer perspective on the conceptual foundations about integrated risk management and governance in IT in banking operations without compromising the operational efficiency. Overall the paper promises to open newer facets of studies. The next paper is truly thematic and it's the need of the hour to perform a detail study on cyber insurance in the growing globalized cyber space. The authors has put empirical evidence to authenticate the study. Cyber-crime is a vast area which could have been elaborated more. The conclusion and discussion are well suited in today's context. In the third paper the authors have attempted study that would add to the existing pool of knowledge in Digitalization Space as Marketing Tool for Luxury Hotels. The review paper is a well-directed effort in understanding how Hotel industry is moving towards seamless connections in which personalized, prompt and integrated services are required to be stable in this competitive world.

The next paper is a sincere attempt by authors to propose a framework for digital entrepreneurship research in the Industry 4.0 which provides direction and pathway for new industrial revolution leadership research and might save time and energy of many researchers in this domain. This paper is an attempt to figure out what are known about digital entrepreneurship, what are not known and finally what are the research issues of digital entrepreneurship. The literature review reveals that digital entrepreneurship is a prime research area. The next in the queue is about the e fintech space in India and its exponential growth trajectory. The digital payments space is experiencing a fast transformation worldwide and will grow four times by 2020 as highlighted by the authors.

The research paper about Digital Entrepreneurship in Ghana which is known as Cocoa economy presents systematically and well-structured the quick acceptance of mobile presently which is a prospect for improving the economy, possibly gathering all the active path of economic growth. In that case, mobiles are a favorable technological innovation for the development of the economy. The paper comes out with a clear cut motivation and is publishable in its current form.

Research paper on the Prescriptive Modelling is adding novelty to the whole approach. Later it can be authenticated with further literature if the author wish to publish more of such papers in the given area. The next paper has attempted to examine the role of digital innovation in sports and how effectively it's growing day by day. It also defines sports entrepreneurship and how sports entrepreneur makes a social change and as well as the trend of generation. The research questions proposed are well articulated. Overall publishable in its current form. The authors of the last paper have picked up a very thematic issue to address through this paper. I am in conformity with the authors who argues that this study will help online business models evaluate the usefulness of online discount coupons as well as it will help in selecting the most preferred brand for online discount coupons for example coupons are mostly used in which sector, is it FMCG, travel or leisure etc. The hypothesis formulated and the statistical tools used are well designed.

I on behalf of the entire organizing team ICDE 2018 is extremely grateful to Dr. Subodh Kesarwani, Editor-in-Chief, GJEIS to extend his support in being the academic collaborator to the conference and being kind enough to bring out this special issue for promoting future research in this area.

With earnest gratitude and profound thanks I would like to acknowledge the continuous guidance of Dr. Vijayan Immanuel, Pro Chancellor and Dr. Radha Padmanabhan, Vice Chancellor, Presidency University for their encouragement and motivation. My thanks to Dr. Swapan Kumar Majumdar for being the pilot to the whole ship of this series of conferences on Digital Entrepreneurship.

Last but not the least my most humble gratitude to the whole team of GJEIS and to all the authors for their scholarly contribution.

Best,  
**Pratika Mishra**  
Associate Professor  
School of Management, Presidency University, Bengaluru





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It is a matter of great pride and immense pleasure to organize the First International Conference on Digital Entrepreneurship: Prospects, Perils, Dividends and Challenges (ICDE 2018), hosted by School of Management, Presidency University. Organizing and Managing is an active process hence perseverance to complete this task has been a fulfilling memoir. The conference is a confluence of hard work by team ICDE-2018 and we extend our heartfelt thanks to the core team for their fulfilling and desirable efforts.

We are grateful to our Chancellor Dr. Nissar Ahmed for facilitating the environment of research and academics in the University.

With earnest gratitude and profound thanks we would like to acknowledge the continuous guidance of Dr. Vijayan Immanuel, Pro Chancellor, Presidency University. Our sincere thanks to Dr. B.S. NagendraParashar, Vice Chancellor and Dr. RadhaPadmanabhan, Pro Vice Chancellor, Presidency University for their encouragement and motivation. Dr. Mrinmoy Biswas, Registrar, Presidency University has been a relentless and unfathomed support throughout the endeavor.

Prof. Gautam Ghosh, Director and Dr. Krishna Kumar, HOD, School of Management have always been there in all unsure moments and their all-round involvement since the inception of the conference. We are truly moved by the gesture and constant support shown by Dr. Prabhakar Reddy, Dean School of Engineering and Dr. Sapna Mohan, Dean School of Law and sincerely thank both.

We are truly indebted to the untiring efforts to Dr. V Gajapathy, Dr. Arabinda Bhandari and Dr. Rosewine Joy, Organizing Secretaries of ICDE 2018 for taking all the pain and challenges throughout and making it a success. Our Editorial Assistant Gagan Kumar, Doctoral Student, School of Management deserves all the applaud for his passion and enthusiasm in this academic endeavor. All faculty of School of Management deserves a special mention for their inputs at every juncture of difficulties and doubts. Appreciations to all the Volunteers for their inputs round the clock.

We are thankful to all the speakers who found time from their busy routines and could come all the way to the conference for giving their valuable insights. We acknowledge the contributions of all the authors for their faith in us.

Last but not the least, our most humble gratitude to the administration of Presidency University for all the necessary infrastructural support.

**Pratika Mishra**  
Organizing Secretary

**Swapan Kumar Majumdar**  
Conference Chair

## Foreword

प्रकाश जावडेकर  
*Prakash Javadekar*



मंत्री  
मानव संसाधन विकास  
भारत सरकार  
MINISTER  
HUMAN RESOURCE DEVELOPMENT  
GOVERNMENT OF INDIA



### MESSAGE

It gives me immense pleasure to know that Presidency University, Bangalore is organizing the 1<sup>st</sup> International Conference on the theme “**Digital Entrepreneurship: Prospects, Perils, Dividends and Challenges**” at its campus on 20<sup>th</sup> to 22<sup>nd</sup> April, 2018.

The key objective of the conference is to figure out and map the digital entrepreneurship skills to meet the future socio-economic needs and challenges and subsequent development of sustainable entrepreneurial practices for fail-safe growth of digital entrepreneurship.

I convey my best wishes for the success of the Conference.



(PRAKASH JAVADEKAR)

Room No. 3, 'C' Wing, 3<sup>rd</sup> Floor, Shastri Bhavan, New Delhi-110 115  
Phone : 91-11-23782387, 23782698, Fax : 91-11-23382365  
E-mail : minister.hrd@gov.in






#### MESSAGE

Please accept my appreciation for hosting the **1st International on the theme "Digital Entrepreneurship: Prospects, Perils, Dividends and Challenges conference at the Presidency University Bangalore on 20<sup>th</sup> to 22<sup>nd</sup> April, 2018.**

I am indeed delighted to see such important initiatives in the Digital space converge through the outstanding efforts taken by you and your team.

India is witnessing a rapid transformation to an innovation-led economy, with the right mix of ideas, access to risk capital and a large consumer base. This is radically redefining the contours of businesses, as also the lives of people. I am privileged to be associated with the ICDE initiative, which will not only engage the youth of our nation in building future skills, but also inspire them to become job creators rather than job seekers.

This is after all an era of creative entrepreneurship, which combines the right-creative brain thinking, with the left, analytical and logical thinking.

The ICDE is being hosted at the most opportune time, and I am confident that the deliberations at this forum will play a significant role in the "**Digital Entrepreneurial Transformation**" of India.

On behalf of YES Bank, please accept my finest compliments on the fantastic work being done by the Presidency University in promoting Digital Entrepreneurship in India, and I look forward to a continued association with your esteemed institution.

Thanks & Regards,



Amit Shah

Senior President Corporate Strategy, Marketing & Communication, YES BANK

28/3/2018

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## Pusat Penyelidikan Keusahawanan dan Inovasi Global

Global Entrepreneurship, Research and Innovation Center

RUJ. KAMI (Our Ref.) :  
TARIKH (Date) :



20 March 2018

Professor Dr. Swapan Kumar Majumdar  
Conference Chairman  
School of Management  
Presidency University, Bangalore, India

I am thrilled that Universiti Malaysia Kelantan (UMK) is able to co-organize the 1st International Conference on Digital Entrepreneurship: Prospects, Perils, Dividends and Challenges to be held at Presidency University, Bangalore, India on April 20-22, 2018.

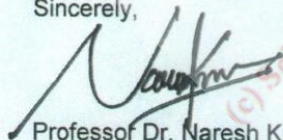
UMK is one of the public university located in the east coast of Malaysia. Standing proud with the motto "Entrepreneurship is Our Thrust", Strategic Plan of UMK has been augmented by the newly unveiled Entrepreneurship Education Ecosystem, a transformation set to catapult UMK into the league of leading Entrepreneurship universities. I am confident that the partnership between the two reputable universities in championing the conference theme will undoubtedly benefits all participants.

The importance of innovation in entrepreneurship is a key value for the longevity of a business. The new breed of enterprising youths will not only contribute to business growth, profitability and wealth creation but will also impact the external environment and economy as a whole by increasing productivity, improving best practices, creating new industries and enhancing international competitiveness and contributing to the growth and development of a knowledge-based economy and society.

I am excited and look forward to receiving innovative ideas from this important conference that will inspire stakeholders to build an environment that is conducive for entrepreneurs, educational institutions and the business community.

My best wishes for a fruitful deliberations and a successful conference.

Sincerely,



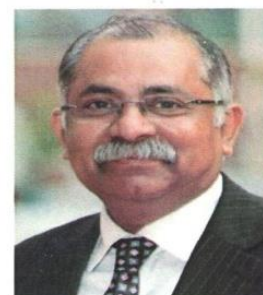
Professor Dr. Naresh Kumar  
Head, Research and Linkages  
Global Entrepreneurship Research and Innovation Centre  
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April 5, 2018

**The Organizing Team  
ICDE-2018  
School of Management  
Presidency University**

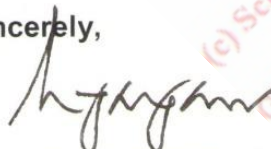
It gives me immense pleasure to welcome the Guests and Participants to the International Conference on “**Digital Entrepreneurship: Prospects, Perils, Dividends and Challenges**”, April 20-22, 2018 organized by School of Management, Presidency University.

Digital entrepreneurship has been viewed as a critical pillar for economic growth, job creation and innovation by many countries. There is growing research to explore digital entrepreneurship from multiple disciplinary perspectives, namely, information technology and systems, entrepreneurship and management, as well as contextual political, legal and socioeconomic factors and their impacts in a systemic and integrative way.

The Conference being organized will certainly trigger discussions and open new avenues on the digital enterprise role for a self-sustained economy.

I also take this opportunity to wish the colleagues, delegates and the organizing committee members including administrative and supportive staff of the University a good time and wish the Conference a magnificent success.

Sincerely,



**Dr. Vijayan Immanuel  
Pro Chancellor  
Presidency University**



**April 3, 2018**

**To  
The Organizing Team  
ICDE-2018  
School of Management  
Presidency University**

It gives me immense pleasure to note that the School of Management has taken the initiative to organize the International Conference on “**Digital Entrepreneurship: Prospects, Perils, Dividends and Challenges**”, April 20-22, 2018.

The chosen theme is truly contemporary and I am absolutely convinced that we all should keep ourselves abreast with the whole gamut of this world changing game named 'Digital Entrepreneurship'.

I extend my warm welcome to all the distinguished academicians, delegates and participants who would be deliberating on the most recent and futuristic trends in the broader theme of the conference.

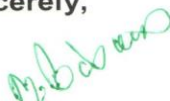
In last 20 years we have seen a series of billionaires who made a remarkable fortune for themselves and many others, with limited investments of their own. Story of Facebook, Amazon, Google are irrefutable evidences of the influence of this trend and they are pointing towards a future where Entrepreneurship will become inseparable from being Digital.

It thus, becomes imperative for experienced professionals to share their ideas and experience to inspire and educate the youth to participate and take leverage of this to create products, services and businesses that will influence people with its worldwide presence.

I sincerely hope that the conference would help in evolving policies for knowledge sharing and in rapid amalgamations of the latest trends and practices in the digital world that would benefit the entrepreneurial mindset at large.

On the momentous occasion of this International Conference, I congratulate all the members of the organizing committee who tirelessly strived and made it happen. I wish the conference every success!

Sincerely,



**Dr. Mrinmoy Biswas  
Registrar  
Presidency University**



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**Dr. Swapan Kumar Majumdar**  
Professor  
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**Dr. Vijayan Immanuel**  
Pro-Chancellor  
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### *Conference Co-Chair*

**Dr. Naresh Kumar**  
Global Entrepreneurship Research and  
Innovation Centre (GERIC),  
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**Dr. Pratika Mishra**  
Associate Professor  
Presidency University

**Dr. Arabinda Bhandari**  
Assistant Professor  
Presidency University

**Dr. Rosewine Joy**  
Assistant Professor  
Presidency University



# 1<sup>st</sup> INTERNATIONAL CONFERENCE DIGITAL ENTREPRENEURSHIP: PROSPECTS, PERILS, DIVIDENDS AND CHALLENGES



**Chief Guest  
Amit Shah**  
Senior President Corporate Strategy,  
Marketing & Communication  
Yes Bank, Mumbai



**20-22nd April, 2018**

## DAY-01



**Subhra Sen**  
Director, School of Entrepreneurship & Mgmt.  
Shiv Nadar University, Noida



**Somdutta Singh**  
Vice-Chair, NASSCOM &  
Director, Centre for Entrepreneurial  
Excellence



**Naresh Kumar**  
HOD, Global Entrepreneurship, Research  
and Innovation Centre (GERIC),  
University of Malaysia



**Randeep Raina**  
Chief Technology Officer  
Nokia Networks India Pvt. Ltd.

**2 Days  
20 Speakers and  
20+ Paper Presenters  
Present their Findings and  
Experience about the Prospects, Perils,  
Dividends & Challenges of Digital  
Entrepreneurship.**



**Alok Nath De**  
Chief Technology Officer  
Samsung India Electronics Pvt. Ltd.



**Anil Naabhya**  
Founder and CEO  
Naabhya Interconnect LLP



**Sachin Anchal**  
Founder of GeekSynergy.com  
Innovative Startup



**Kamal Kishore Sharma**  
Startup Mentor & Consultant  
Ex-Vice Chancellor, Ansal University, Gurgaon

**Participate, Interact and Network  
with the Doers, Financiers and  
Thought Leaders**

## DAY-02



**C. Vasudevan**  
Sr. General Manager,  
Bombay Stock Exchange  
( Guest of Honour )



**Ulla Koviokoski**  
Head India Operations  
Avanto Ventures



**Pekka Hanninen**  
Professor of Medical Physics &  
Engineering, Institute of Biomedicine,  
University of Turku, Turku, Finland



**Krupesh Bhat**  
Founder and CEO  
LegalDesk.com



**Siddharth Yadav**  
Writer, Thinker & Motivator



**S. Sadagopan**  
Director Indian Institute of  
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**Vandana Sharma**  
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**Sourav Mukerjee**  
Dean Academic Programs,  
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Founder of Karma Circles,  
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### Conference Chair

Professor Dr. Swapan Kumar Majumdar  
Mob : 78650 12366

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Dr. Pratika Mishra | 96431 03117  
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7. Student Research Initiatives (SRI) is a research initiative by a grass-root researcher and technocrats. This head facilitate students/learners to pursue independent academic and imaginative effort and engage in research under the supervision of a faculty mentor with an intention to heighten student research as a means of collaborative learning, critical thinking and the establishment of knowledge. [Limit 12 Pages]
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11. Biographical Note of the Luminary in an Area of IS We as per our culture acknowledge in every issue a great leader, Entrepreneur, Technocrats, Academician etc., who contribute a lot to a society in an area of IS. [Limit 2 Pages]
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3. It is mandatory for Indian authors to submit research article along with a foreign co-author as a first author or corresponding authors due to journal global in nature characteristics and its wide international presence and listing in various directories across the globe. The submission by the foreign authors will fulfill the global mandate of journal and facilitate in listing and enhanced impact factor in future course of action. Though the journal have been listed in various directories and had a good impact factor but we expect in 2019 to be listed in few leading indexing.
4. There will be a waiting time of minimum **12 months** from the date of submission i.e. April 2019, as paper require rigorous review by **3 internal reviews** from India and **3 blind reviews from outside India** based on the subject expertise and themes.
5. From April 2019 we are putting a Reviewer comment in a Paper under Category Called: Anonymous Reviewer-1, Anonymous Reviewer-2, and Anonymous Reviewer-3. Though tracking record from Submission to online first would depict with various dates in a paper. Visit sample article and reference style. Journal also publishes a similarity index detail of ithenticate plagiarism report at the end of an article.

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Subodh K. Kesharwani

*Editor-In-Chief*

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FTBS

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### Journal Initiated under Scholastic Seed Ambit



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**AGEMS-2014**  
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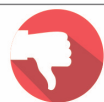
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- Free access • Self-archiving • Repository • Author foot fall • Pre or post publication irrational fear Eradication



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- Have a Digital Object Identifier (DOI)
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- Google Scholar and Citation is an important ingredients for choosing a journal
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- Know the Impact factor of journal before Publishing an article
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- It is suggested to an editor not to publish anything without Originality check
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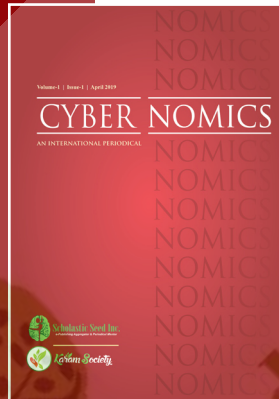
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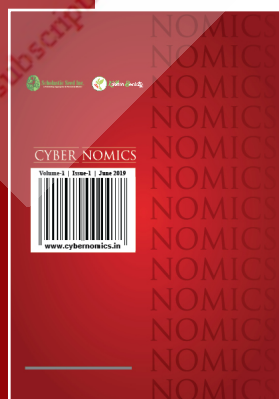
CYBERNOMICS magazine aims at achieving the growing demands for understanding and addressing issue pertaining to real-worlds Cyber-Attacks, Cyber Threats, Cyber threat Intelligence, Cyber Warfare, Cyber Terrorism, Darknet and Crypto Currencies and threats to information infrastructures critical to the national security of country.

The magazine publishes articles and reviews in the areas including, but not limited to:

- Cyber Threats
- Cyber Warfare
- Darknet and Darkweb
- Cryptography and its applications
- Network and critical infrastructure security
- Hardware security
- Software and System security
- Cybersecurity data analytics
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- Malware Analysis
- Privacy-enhancing technologies and anonymity
- IoT Security
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# Global Journal of Enterprise Information System

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