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A QUEST FOR BORN - GLOBAL SPECULATIVE START-UP: PERVASIVE PHENOMENON MODEL

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ABSTRACT

Aim/Purpose	The objective of this research is to analyze the literature to-date thoroughly and conceptualize a born-global speculative start-up (BGSS) pervasive phenomenon model.
Background	The concept of 'Born-Global' or International New Venture (INV) firm was introduced into business theory in 1988. Over the last decades BGSSs such as Apple, IBM, Google, Yahoo, Microsoft, Facebook, Twitter, Amazon and many others have emerged effecting everyday life incomparably by contributing millions of people employment and making significant difference through corporate social responsibility (CSR) for the global community at large. Pervasive technologies and pervasive advertising has played a pivotal role informing the BGSS stakeholders, especially consumers, influencing pervasiveness in the contemporary society. Even though researchers have made invaluable contributions in the field of born – global and entrepreneurship, strikingly to date, the literature is void of a holistic model for BGSS pervasive phenomenon.
Methodology	A thorough literature is provided and a holistic model is conceptualized.
Contribution	This research makes several contributions to born-global and entrepreneurship literature. It identifies mantras to build and sustain ventures from scratch to global giants. BGSS pervasive phenomenon is a brand-new perspective in the academic research. This research contributes worthwhile insight on how the BGSS pervasive phenomenon is created by the application of pervasive technologies and pervasive advertising for various industries. Venture consonance comprising five essential elements and its interaction is presented to demonstrate the pervasive phenomenon process. The relevant insights described in this paper are useful lessons to entrepreneurs regarding BGSS

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	<p>creation and success. This field of research and researchers interested in the phenomenon would benefit from having access to BGSS, as a common terminology.</p>
Findings	<p>This study is the first to validate that BGSSs are successful in creating the pervasive phenomenon through pervasive technologies applications and pervasive advertising. The findings of this research provide information and engagement with the stakeholders of various industries providing advantage to global community. Research shows special traits such as acumen, tenacity, passion, persistence and commitment with deeper conviction of the founder (s) is required to build and sustain BGSS. The research findings also indicate that the investors provide significant value-added attributes and engage with various stakeholders, particularly top leadership team (TLT), in addition to adequate funding for the success of BGSS. The key word is pervasive indicates that a phenomenon is experienced because of technologies permeates all aspects of human lives.</p>
Recommendations for Practitioners	<p>The process of pervasive technologies and pervasive advertising in practice need to be applied for the good of the society at large. The role of entrepreneurial incubators could be helpful to understand why they are significant to pursue BGSSs pervasive phenomenon. Entrepreneurs need to interact proactively with relevant geo-graphical government agencies to obtain access to logistics and resources in a seamless manner, particularly for the internationalization process, for BGSSs to provide value to various countries.</p>
Recommendation for Researchers	<p>Research on BGSSs for other industries that affects daily lives of the global community should be carried out to enrich the findings of the stakeholder engagement for the creation of pervasive phenomenon. Based on the above recommendation, a question is worthwhile to investigate: How are stakeholders in various industries engage in the creation of BGSS pervasive phenomenon.</p>
Impact on Society	<p>BGSSs are of great significance for the contemporary society from economic point of view making intrinsic difference in the lives of people. Sustainable BGSS is paramount because it can lead to a socially, environmentally sustainable society, and would increase awareness among various cultural communities globally.</p>
Future Research	<p>Scholars should embark upon creating a pervasive phenomenon theory and social critique on conspicuous consumption. Further research could be done on how BGSSs are engaging stakeholders to achieve sustainable competitive advantage through the stakeholder engagement for various industries.</p>
Keywords	<p>BGSS, Pervasive Technologies, Pervasive Advertising, Corporate Social Responsibility, Pervasive Phenomenon</p>

INTRODUCTION

Companies like Apple, Google, IBM, Microsoft, Twitter, Facebook, Yahoo, Amazon, H & M, and many others have three attributes in common: (<http://www.apple.com>, <http://www.Google.com>, <http://www.IBM.com>, <http://www.Microsoft.com>, <http://www-Twitter.com>, <http://www.Facebook.com>, <http://www.Yahoo.com>, <http://www.Amazon.com>, <http://www.H&M.com>).

First, the above firms with a global vision emerged from speculative start-up with no operating history to multi-national profitable giants.

Second, the phenomenon known as “Born-Global” has changed the internationalization process whose genesis stems from a major focus on international markets.

Third, early investors made investment on a speculative basis based on the potential market opportunity (Oviatt & McDougall, 1997).

Hence, the author has coined such companies as BGSS acronym to refer to “Born-Global Speculative Start-up”.

There has been much interest in the born-global and entrepreneurship as a field of academic research. Although scholars proposed comprehensive approach to the study of venture formation, much of the literature has been dominated on one or two elements in isolation for venture creation. Most of the historical research has a restrictive focus on the role of the entrepreneur or on knowledge in the venture consonance. Such a confining focus not only confounding but also does not recognize the nature and dynamics of the inter-relationships taking place in high-tech start-ups. Remarkably to date, there is a void in the literature a comprehensive model that describes the dynamics of the inter-relationships taking place in high-tech BGSS. The proposed comprehensive model for high-tech BGSS pervasive phenomenon is complex, interactive process comprising five pivotal elements (i.e. the top leadership team, market opportunity, the knowledge and experience of the firm, the technology, and the internationalization process). Based on extensive practice of the author and coalescence of the available literature, this study for the first time presents a complete and integrative model of high-tech BGSS where pervasive technologies, pervasive advertising and corporate social responsibility (CSR) play a key role in creating the pervasive phenomenon. BGSS or speculative start-up or start-up or venture or fledgling business or firm or company or enterprise is synonymous with each other in this study.

RESEARCH MOTIVATION AND STUDY JUSTIFICATION

The literature is void of a holistic model for BGSS pervasive phenomenon. The reason for this scholarly research is to harmonize and integrate the available literature into a comprehensive model with five key elements in high-tech born-global start-ups process. This study also, for the first time, provide a perfect context to examine about how, by whom, and with what effects that garage start-ups become global giants creating BGSS pervasive phenomenon through the application of pervasive technologies, pervasive advertising and CSR contribution to the contemporary society at large.

The author is motivated to describe international entrepreneurial venture to be an intricate, interactive process involving five key elements (the top leadership team, the knowledge and experience of the venture, the technology, market opportunity and internationalization process). Hence, this conceptual paper is justified to investigate a quest to review thoroughly the existing literature and conceptualize a comprehensive model of BGSS pervasive phenomenon.

BACKGROUND AND THE BGSS CONCEPT

The author contends “concept” a collection of ideas that has definite existence. A “concept” may cover many different names, under which a concept is known such as BGSS (i.e. Born-Global Specu-

lative Start-up). Researchers refer to “International New Venture” to label the phenomenon “born-global” of new venture that strives to be international from the inception stage. Any new business is not born-global. In this study, the author defines BGSS, a start-up that has a global vision with an internationalization process and growth strategy when early investors made their speculative investment based on the market opportunity.

CULTURAL DIVERSITY AND ORGANIZATIONAL PERSPECTIVE

A start-up organization starts with an intangible idea and humble beginning. It is not about where and how the start-up started but it is important to understand where one ends up. To appreciate how start-ups starting from a garage become the global giant, one needs to dive into how successful entrepreneurs have created theirs and the organizations have sustained making significant contributions to the global economy in conjunction with cultural diversity encountered. Communication is controlled by cultural diversity. Intercultural experience is exceedingly important not just because of globalization, but also within the national borders. In a globalization environment, there is no single approach for communication. Cross-cultural success depends on deep respect for the cultural differences. To create and sustain a culture of empowerment and ownership in an organization, the top leadership team must connect passionately with organization’s mission, vision, and value. Organizational structure drives culture. Building a culture is an inflection point for any start-up and specifically for fast-growing BGSS. A clear definition of culture can give everyone the proper framework to work with. Furthermore, it is a key to understand the influence of top leadership team (TLT) with transparency and tone at the top mindset, global business practise, the governance structure, the cognitive diversity of the organization and the continual innovation culture to create value. People awareness of the distinct cultures, traditions, and lifestyles has increased in every corner of the world. Because of cross-pollinated views, ideologies products and services it is important to discuss the idea of global thinking and cultural understanding in the context of the business world. Firms whose business operations are borderless need the cultural variability of different regions of the world and develop cultural understanding.

To be successful, BGSSs require patterning their business activities to comply with the local cultural models and need to establish a global mindset. The cultural understanding is vital business tools that enable BGSSs to govern the local markets. To capitalize the global opportunities, it is paramount to think both (global and cultural) same time. Globally expanding businesses require a wide range of expertise and knowledge that operates under a variety of leaders coming from diverse cultures. BGSSs require developing three types of equities - intellectual, social, psychological - to take advantage of global thinking and cultural understanding. Intellectual capital can be captured by building global marketing alliances, and value networks. Building social capital is the vital step towards global thinking and local cultural understanding. Psychological capitalization demands ambidexterity, self-assurance, and pliancy. An idea in various markets draws people together with the diverse perspective. Ideas compete for people to encircle them and are a locus for collaborative expertise creation causing ideal forum of cognitive diversity to emerge. One of the secret to enterprise fast-growth is cognitive diversity. It is vital to employ all thinking and behavior types to put diversity to work. Each person is empowered and expected to devote their indispensable invaluable insights. Individuals have their own cognitive composition that explains the world around them and their interpersonal demeanors. Information integrity is one of the merits of teams with profound cognitive diversity. With the enlarging advanced communication technology, cognitive diversity positively strokes group interaction and decision results. Understanding that diversity of thought is a real driver of value and different methods can produce novel solutions, unleash new ways of working and inspire innovation. The team ought to be comprised of visionaries, task-oriented members, and individuals who possess diversified thinking propensity. Motivating employees and other stakeholders with purpose can boost firm’s brand. Getting a sense of individual purpose helps people with their self-compass. Purpose and passion help people to understand what drives energy. Cognitive diversity creates an environment that feeds collaboration by pushing people to be open and communicative about their unique perspectives

and approaches. Such collaborative environment should be the core part of organization's culture. Organizations need to build culture valuing the diversity that makes a difference Stakeholders of a firm need to understand the mission of the brand. Such approach is pervasive.

LITERATURE REVIEW

ENTREPRENEURIAL MOTIVATION FACTORS

In this phase, the primary challenges of a high-tech BGSS are to develop the technology successfully and transforming the technology into the commercial product to deliver the customers (first adopters). The important questions are the following: With respect to creating and building BGSS in general, research by Shane et al. (2003) shows that there are motivational and non-motivational factors. Shane et al. (2003) claim that "human action is the consequence of both motivational and cognitive factors. Besides motivational factors, also the willingness is influenced by other incentives: non-motivational factors and external factors".

Motivational factors: Need for achievement. Entrepreneur desire to accomplish a goal.

Locus of control: Entrepreneurs believe that actions have a direct impact on outcomes and think that the outcome is out of their control.

Drive and passion: Willingness to put exertion and love for the work

Desire for independence: Entrepreneur responsible for his/ her actions and judgments

Self- efficacy: belief in ability.

Non-motivational/ External factors: Opportunity cost social ties to investors and career experience. Market forces structure of the industry, and resources availability.

COLLECTIVE CONTRIBUTION OF FIVE KEY ELEMENTS OF HOLISTIC MODEL

Based on the historical research one or two elements for BGSS formation in isolation has pitfalls. Such studies fail to consider an important interaction that takes place with the key contributors of the innovation process. Hence, the author proposes five key elements that are widely recognized in the literature of high-tech BGSS. Figure 1 depicts the collective and interactive contribution of these five key elements. The first element is the top leadership team (TLT) of the BGSS who decides to pursue and execute the technology during the entrepreneurial stage.

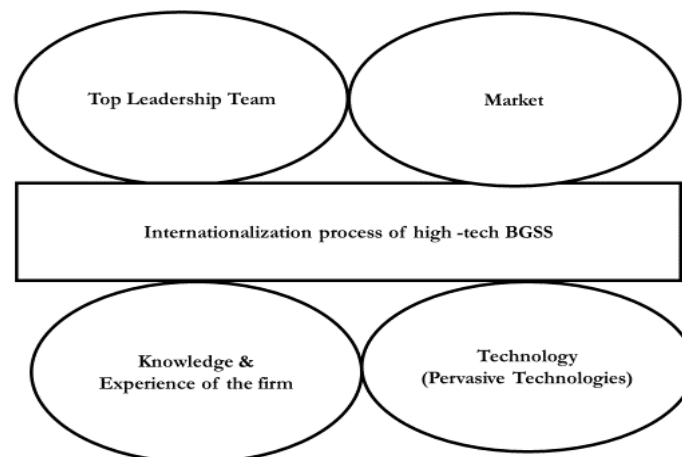


Figure 1. Five key elements of high-tech BGSS

The second element is the collective organizational knowledge and experience that impact the BGSS success. The third element is the technology on which the BGSS is based and evolves due to interaction with the founding top leadership team (TLT) and the knowledge of the firm. The fourth element is the market opportunity (MO) development process allows one to articulate and frame innovative ideas coherently to increase the success in the market. The final element is the internationalization process that need to acquire market specific knowledge to conduct transactions with various countries. Many ventures have the vision to enter international markets right from their birth. Born-global firms focus on how to satisfy the needs of consumers in a global niche from their inception. Internationalization of the enterprises has become a pervasive phenomenon, which highlights the significance of the BGSS concept for researchers and practitioners to focus on (Oviatt & McDougall, 1997). High-tech BGSS operate in an entrepreneurial environment and at the cutting edge of technology, continuously developing new markets and often involve with top leadership team with highly charged entrepreneurial traits. This scenario provides an optimal background to study the entrepreneurial innovation process that includes the five key elements (technology, market opportunity, top leadership team, knowledge & experience of the firm, and internationalization process of the high-tech BGSS) as indicated in the figure 1 and described below:

HARNESSING TECHNOLOGY FOR INNOVATION

About decades ago, terms such as "dot-com" and "surfing the net" meant nothing to an average person. Today, billions are clicking their way through the Web. There's no question that computers, the Internet and smartphone are a substantial part of 21st-century life. Nowadays technology influences from every waking moment of our lives. Pervasive computing is all about integration of information processing into daily activities of human beings. Advance techniques in both software and hardware of sensor development, making a plethora of embedded platforms that includes computation, communication, and sensing capabilities enables rich experiences to consumers. The phenomenon divulges impressive changes in the way human beings live, act, think, and directly are linked to various industries. More and more users are willing to use pervasive services and applications. Recent technology development in the fields of information communication technology (Pimple, 2014), wearable technology (Lee et al; 2015) and cognitive technology, Internet and other technologies provide the competitive edge for many new BGSSs to attain growth affecting day to day lives of the global community at large. However, technology itself is not an innovation. The match between technology and the market need to create customer value proposition is the path to innovation. It is vitally important to understand technology driven innovation may manifest in many forms. Technology is evolving constantly such that effective market opportunity in the high-tech BGSS involves embracing technology evolution. It is the efficient management of this evolution process with knowledge and experience of the firm creates the high-tech BGSS success. Furthermore, the type of technology exploited, and the rate of technology exploitation is highly sector-specific. Examples are provided as case studies in the smart fashion wearable (fusion of fashion and technology) industry, as shown in the figure 2, to demonstrate the application of ICT, WT, CT and other technologies as pervasive technologies and its impact on day to day lives creating the pervasive phenomenon.

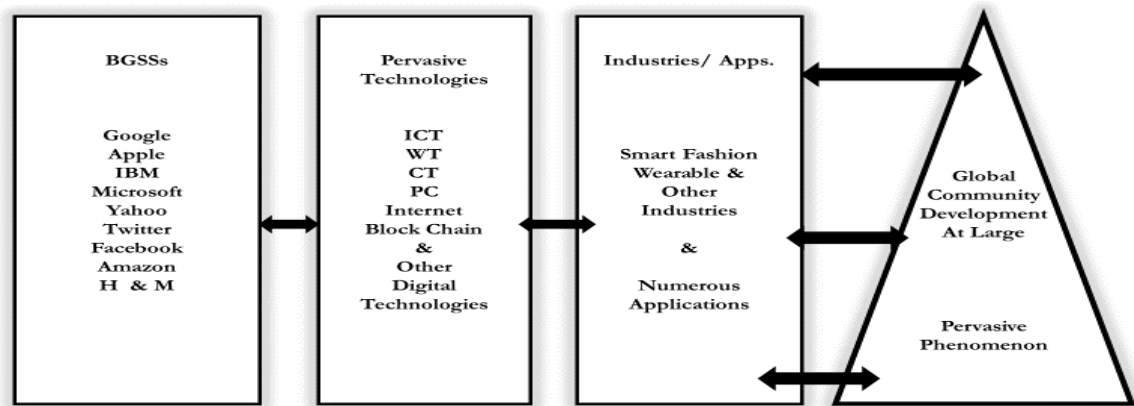


Figure 2. Pervasive technologies creating BGSS pervasive phenomenon

Through industry, cooperation technologies can be channeled for innovation to provide various cutting-edge application solutions to meet the customer need. Close collaboration with customers is essential for delivering solutions with real benefit. For instance, APIs (application programming interfaces) help customers connect and integrate with products and services in an efficient and effective way for the fashion and other industries. “Block chain” is an emerging distributed ledger technology (DLT) that maintains a continually growing list of transactions or records called blocks. Each block contains a timestamp and a link to a previous block. It has the potential to process transactions in a fraction of a second. DLT can streamline the process to enhance transparency as well as provide security. Wearable technology (WT), as a pervasive technology for many disciplines and is defined as the technologies for various wearables (Lee et al; 2015). Cognitive couture market opportunity is emerging, and the field of study crosses boundaries between many disciplines related to fashion creation, fashion design, cognitive technology (CT) like IBM Watson technology, other wearable technologies and aesthetic. Such technology is not just a state of the art technology, but the dawn of a new era called the Cognitive Era- creating various kinds of technological, scientific and societal challenges and opportunities affecting every day to day life (<http://www.IBM.com>). Considering the above, information communication technology (ICT), wearable technology (WT), and cognitive technology (CT) and other digital technologies are considered pervasive technologies because these technologies impact day to day lives of the socio-cultural, economic and environmental aspect of the global community at large. Pervasive technology is the study of how technology affects interactions with the environments they immerse that can be utilized by its occupants to enhance the quality of their work and life. For example, information communication technology can be created, managed, disseminated and consumed leading to interactions between users and the environment. The social interactions in this space are value added and rigorously pervade to create pervasive information environments, or pervasive spaces, for the benefit of their stakeholders and users. A core concept in pervasive technology is the interactions that may occur in pervasive environments: people-to-people, people to the physical objects and the physical space to technological artefacts. To study these interactions, it is paramount to have nuance understanding of how and what information is being created and exchanged. Such hypothesis enables social and technological interactions in sync to affect day-to-day lives form the foundations of pervasive phenomenon.

TLT TRAITS TRANSFORMING MARKETS

Literature provides many high profile BGSS examples, as indicated of high-tech entrepreneurs transforming markets, the intellection of technology driven entrepreneurs and entrepreneurship is not a new phenomenon. Schumpeter (1934) suggested “entrepreneurs, blessed with an ability to wield technology as agents of market change, engaged in the process of creative destruction. However, the entrepreneur is not just part of the overall process for BGSS success because it takes a formidable

top leadership team (TLT) to be innovative to attain success. Venture capitalists rate following key factors to determine the chance of new venture success with a rating of five (5) being the most important and 1(one) being the least important are (Ge et al; 2015):

1. Quality of Management -- 4.5
2. Size of the market -- 3.8
3. Product qualities -- 3.7
4. Rate of market growth -- 3.5
5. Competition -- 3.5
6. Barriers to entry -- 3.4
7. Company's stage of development -- 3.2
8. Industry that the company is in- 3.0

Hence, it is paramount that one should not lose sight of the entrepreneur as one of many factors that can affect upon market success in high-tech BGSS. Investors measure the top leader team, particularly founder (s) through gut feeling. However, for some investors it is a science based on the following traits:

- i. Commitment - Real commitment from TLT is personal investment in terms of sweat equity. Founder (s) must have skin in the game. Any founder who wants a salary, then the real commitment may not be there.
- ii. Passion - This trait may sound obvious, but genuine passion based on entrepreneurs' deep interest and love to continually innovate to create value and sustain.
- iii. Support - Before investing the investor wants to find out the family support in the founder (s). Entrepreneurs give up when things get tough. Therefore, support system is essential to sustains.
- iv. Listen - Founders must be able to listen – does not mean blindly accepting advice. When an entrepreneur rejects every idea—not an encouraging sign.

MARKET OPPORTUNITY – PRACTICAL DETERMINANT AND SENSE OF SCOPE

Market opportunity called simply “total addressable market” because it offers a sense of scope. Investors and entrepreneurs want to know the size of the market opportunity. But market size is relative, fluid and rapid change. A BGSS should have the crystal ball on the customers' needs and should have the holding ability to exploit them within the firm's context. Calibration of the total addressable market (TAM) is delicate, particularly when both the market and the technology are new and is comprised of three factors: the broad population, the percentage likely to adopt as first adopters to the good or service, and the potential revenue (Mauboussin & Callahan, 2015). Based on the above factors, assuming the BGSS has a formidable top leadership team (TLT), in other words, quality of management, then the total addressable market is the key and practical determinant for a BGSS success.

KNOWLEDGE AND EXPERIENCE AS THE KINGPIN

High growth BGSSs typically involved in the creation of an organization with the broad talent, skill, and experience and expertise foundation necessary to convert the intangible idea into a sustainable tangible entity. This scenario argues that the level of prior knowledge is a crucial factor in enabling a firm to exploit new market opportunities. This is particularly true in the technology-based firm, where top leadership team knowledge specialized is essential to identify, mobilize, and exploit other key resources to BGSS success. A type of knowledge that is discerning in the new start-up creation is market and business knowledge and experience. The experience factor is conspicuous in the entrepreneurship literature, suggesting that prior experience, particularly of markets, plays a noticeable role in the BGSS success. A lack of such knowledge and experience has been recognized as a bestowing factor in the BGSS failure. Technology is a pivotal element in the specialized knowledge of the

BGSS process. Technical knowledge can be highly transferable and are often hard to translate into a justifiable or intelligent form. The development of knowledge in a BGSS involves interaction of knowledge from various sources.

INTERNATIONALIZATION PROCESS KEY FACTOR TO COMPETITIVENESS

The internationalization process of a born-global venture has received extensive research attention recently. Literature in international business shows that the need to acquire market-specific knowledge leads firms to pursue an international process. Scholars have tried to define internationalization on many occasions using many different perspectives and variables. Welch and Luostarinen (1988) defined internationalization as the process in which firms increase their involvements in international operations. Other researchers define internationalization process increase their awareness of the influences of international transactions to conduct transactions with other countries. Most literature in international business shows that export is the major international marketing and sales activity to increase growth of the BGSS to achieve competitive advantage. In this study, the high-tech BGSS put significant emphasis on creating and maintaining networks to achieve internationalization. The internationalization process is essential in a high-tech BGSS because it offers the following value-added benefits: (i) to achieve growth through bigger market opportunity, (ii) born- global (BG) firms prefer to go international markets where they find opportunity, similar culture and environment regardless of distance, and (iii) BGs tend to compile high volume of sales from international markets. Johanson and Vahlne reinforce the belief that "the internationalization process represents firms' gradual acquisition, integration, and use of knowledge about foreign markets and operations, and on its successively increasing commitment to foreign markets" (Johanson & Vahlne, 1977). Internationalization becomes a key factor in competitiveness of enterprises, regardless of their size and area of interest. Pervasive technologies simplify and improve enterprise development. Searching for new markets become accessible, economical barriers reduced, thereby costs of international operations reduced and competitive ability increases. Application of pervasive technologies in the process of internationalization is prevalent throughout the BGSS value chain. Modern technologies simplify the process of BGSS internationalization.

INFORMING SYSTEMS OF PERVASIVE TECHNOLOGIES

In the digital universe, big data is the new adjuvant. Industries need to leverage big data to understand better for sales, marketing, customer service, customer risks to capitalize on new market horizons for growth and efficient use of capital, particularly when the key driver is the growth strategy for a BGSS success. When an industry becomes more and more commoditized the quarrying of big data represents vast opportunity for the companies to be distinct from the competition and outperform the competitors. Bigdata is like a diamond mine and every transaction with stakeholders lays the valuable opportunity of information that can be analyzed to improve every aspect of service provided for relevant stakeholders. The predictive analytics (Shmueli & Koppius, 2011) enables companies to better manage their relationship with various stakeholders, specifically consumers, revenues and risks involved in managing the business. Furthermore, the firms will be able to enhance customer self-help via greater access of data that can interface with enterprise resources planning (ERP) system (<http://www.syspro.com>) and run the predictive bigdata analytics across the working capital required. Cloud computing is truly taking the most industries to the next level. Through cloud computing, BGSSs are turning to machine learning, the Internet of Things (IOT), business analytics and block chain technology to help customers identify and solve challenges and improve customer service. As pervasive computing becomes ubiquitous in daily life, the IOT provides also this vision and converting common objects into connected devices to communicate enabling notifications about usage. Nowadays, the usage of optical character recognition (OCR) to read text from trade and commerce documents to have become common. As industries move forward with next generation of cutting-edge pervasive technologies, such as artificial intelligence, cognitive computing, wearable technologies, Blockchain, and other technologies effecting day to day life, so too will opportunities to

improve efficiency, performance and productivity. The use of machine learning (ML) and natural language processing (NLP) techniques drive the automation of a complex web of cognitive processes benefit various aspects of internationalization process of a BGSS to penetrate international markets to achieve the global vision (<http://www.IBM.com>). While technologies such as artificial intelligence offer infinite possibilities, one cannot ignore the fact that customers are humans and it is ultimately their acceptance of the technology determines the BGSS success. The author describes cross-pollination of the pervasive technologies, business intelligence and predictive analytics is a pervasive technology system (PST) enables disparate cultures to conspire more competently in every round and bring global community of stakeholders and organizations closer together, as shown in the figure. 3. By allowing happening unprecedented access to informing systems, technology is changing user presumptions. Technology evolution in the Internet domain is aggregating strength as continual innovation connects billions of devices into pervasive technologies systems. This emerging technology is known as the Internet of Things (IoT). The application of pervasive technologies for BGSS marketing, sales and service purposes presents enormous opportunities and challenges for the 21st century. Pervasive promotional marketing (Müller et al; 2011) is already happening. The choice should be in a constructive and gainful direction. This is a digital world in which pervasive technologies accomplish affirmative potential through promotional marketing. Such marketing promotions are called pervasive advertising (Müller et al: 2011) which plays important and necessary activities in the BGSS business development. Without pervasive advertising, some BGSSs would not thrive or even survive Pervasive advertising of pervasive technologies to relevant stakeholders, particularly consumers, play a key role inducing the pervasiveness in the society and enabling BGSSs success. Most marketing and advertising professionals are unaware of recent advances in pervasive technologies, the opportunities they offer, and the challenges they pose. Similarly, many pervasive technology researchers and professionals are on top of the recent technological advances but lack basic marketing and advertising expertise. This research highlights this gap. Hence an understanding of how the pervasive technology can influence marketing. Muller et al; describes, “advertising aims to inform, evoke emotions, and trigger actions” (Müller et al; 2011). Pervasive technologies are used for pervasive advertising and have the effect on everyone’s life creating pervasive phenomenon as shown in the figure 3.

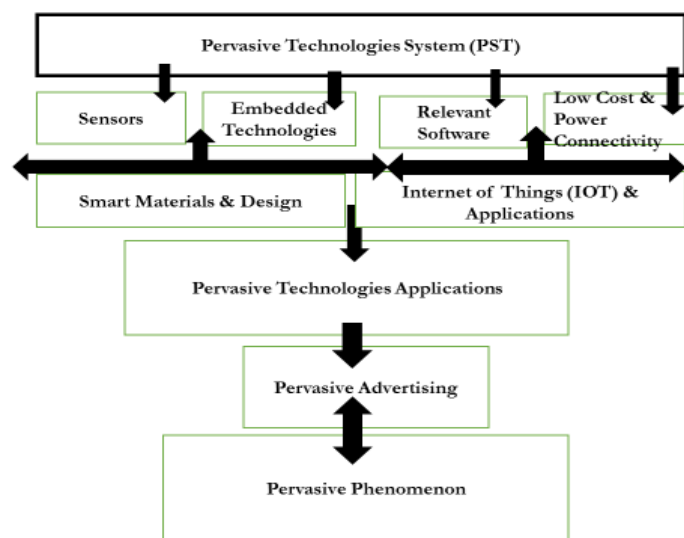


Figure 3. Pervasive technologies applications creating pervasive phenomenon

INFORMING AND ENGAGING STAKEHOLDERS

The application of informing system for the BGSS stakeholders' engagement, as shown in the figure 4, is the backbone of the industries. They have the power and should take the responsibility for transforming the industries to ethical and transparent. BGSS good governance is driven through engagement with internal and external stakeholders fundamentally changed due to the technologies pervasiveness brought along with social media, thus creating the pervasive phenomenon. Sustainable entrepreneurship is paramount because it can lead to a socially, economically, and environmentally sustainable society. BGSSs can provide solutions to social and environmental challenges and facilitate self-sustaining economically also. Innovation is the key driver to solutions for sustainability. Furthermore, researchers contend stakeholders' engagement as a solution to continuous innovation for sustainability.

As indicated in the figure 4, the stakeholders for various industries are defined as follows:

Market regulators - define laws and regulations for the consumer market in relation to marketing, distribution channel, materials, production etc.

Supplier regulators: define laws and regulations for the production area in focus.

Consumers: customers of the various industries.

Mediators: are involved in magazines, news media, forums, activist organizations, etc.

Designers: those who design the products for the consumers.

Creators: those who create value for the products and services.

Marketers: those promote advertising for selling the product and services.

Producers: those make the decisions on which products to produce, and how to produce them.

Suppliers: those who produce item materials.

Workers : those are employed by the suppliers.

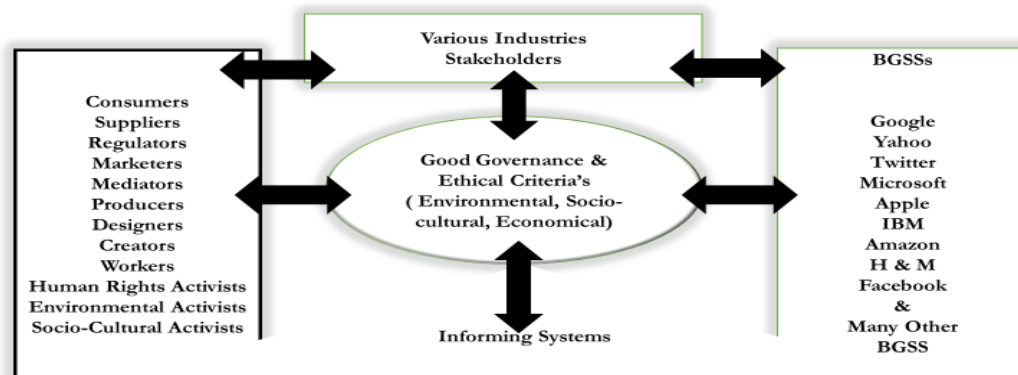


Figure 4. Application of Informing Systems of BGSS stakeholder engagement

BGSSs should have constructive engagement with their stakeholders, which include equity owners, customers, suppliers, employees, regulators, and local communities. Informing and engaging with stakeholders benefits and enhances the risk management of the BGSS. Furthermore, informing stakeholders regarding the BGSS business operation regularly is a good governance practice. One of the key principles of good governance is to provide practical tips and tools to help navigate stake-

holder engagement that strengthens the long-term sustainability of the BGSS as well as improves trust and reputation among stakeholders. Since stakeholders have a stake in the BGSS, informing and engaging stakeholders has governance significance because it deals at the heart of how power and authority that are empowered within the BGSS significance.

The following good governance principles are essential for the start-up to sustain and beyond:

- (i) The umbrella for a range of controls and transparency,
- (ii) Risk management as at the heart of governance,
- (iii) Research on listed companies reveals that companies which practice good governance enjoy a valuation premium,
- (iv) It is not just about compliance of ethical criteria's but also executing internal processes and attitudes that add value, enhance the reputation of the BGSS and ensure its long-term success,
- (v) Execution of a decision-making structure that can be delegated to management

Successful BGSSs do not achieve sustainable competitive advantage by sheer chance or coincidence. They attain with a proactive mindset for the future by the formidable top leadership team, right ethos, continual upgrading and learning new skills, while adopting perpetual technology innovation.

MANTRAS TO CONVERT UNKNOWN GARAGE VENTURES TO GLOBAL GIANTS

One ought to think what would change in the world and impact humanity in a significant way positively if the entrepreneurs' followed their imagination, stayed persistent with it, willing to disrupt the systems, and showed conviction to their dreams? The following mantras how entrepreneurs convert their indispensable ideas to global giants by disrupting technologies and markets to make transformational contributions to the global economy in conjunction with cultural diversity that impacts lives of millions of people creating pervasive phenomenon:

- (i) Creating global vision with their unique ideas to own the future to overcome with limited key resources under tremendous uncertainty from the inception stage.
- (ii) For them future is now. Constantly pursuing outside the box thinking to create growth strategies for game changing disruption.
- (iii) Their organizations embrace disciplined approach to innovation. Simple rules cannot guarantee successful innovation, but the productive approach is to apply few simple rules. Trying anything new inevitably entails experimentation and failure. Simple rules, however, add discipline to the process to boost efficiency and increase the odds that the resulting innovations will create value.
- (iv) The formidable top leadership team strive to create disruptive technologies with new business models that are constantly innovating and leveraging pervasive technologies to broadcast through pervasive advertising.
- (v) Top leadership team (TLI) possess the ability and capacity to create a compelling ecosystem and have strong entrepreneurial knowledge and experience as well as the mindset to change the future of the world for good.
- (vi) The founder (s) continually execute internationalization process through penetration of foreign markets through joint ventures, marketing resources maturity phase alliances and other appropriate distribution channels.
- (vii) Continuously organize to capitalize new opportunities and making it happen.
- (viii) Execute dual transformation strategy to manage core business and new growth in parallel.
- (ix) The founder (s) possess the canning ability to raise adequate funding to build the venture until the resource maturity phase.

- (x) Investors dedicate themselves to the start-ups and play pivotal role to create value with value added contribution in terms of their experience, acumen know how and who in addition to adequate funding. They engage with stakeholders, particularly TLT, in a constructive way to drive the venture to success and sustainability.

PERVASIVE PHENOMENON RATIONALE

The rationale of this study focuses on BGSS pervasive phenomenon.

- (i) The BGSSs are relevant and paramount because they play a significant role in the transformation and growth of local, regional, national as well as global economy.
- (ii) From an economic point of view, the BGSSs, mentioned below in the Table 1, have sustained to become the multi-national corporations employing millions of employees making a significant difference positively in the stakeholders' wellbeing.
- (iii) Furthermore, these BGSSs create continually pervasive technologies and breed through pervasive advertising to affect millions of people globally by making intrinsic difference in their everyday life through social responsibility.

Table 1: Examples of Successful High-Tech BGSS

BGSSs	Inception Year /Revenue US\$	Revenue (US\$) in billions (May 2017)	Market Value (US\$) in billions (May 2017)	Employees (2017)
Alphabet (Google)	1998 /0	89.9	580	73,992
Yahoo	1995/0	5.18	44.4	9100
Twitter	2006/0	1.4 (May 2015)	32.9 (May 2015)	3638 (May 2015)
Microsoft	1975/0	85.3	507.5	124,000
Apple	1976/0	217.5	752	123,000
IBM	1911/0	79.92	162.4	380,000
Amazon	1994/0	136	427	541,900
H & M	1947/0	22.67	39.9	148,000
Facebook	2004/0	27.6	407.3	17,048
			Total Market Value US\$2.95 Trillion	Total Employees 1.42 Million

Source : <https://www.forbes.com/global2000/list>

CSR CONTRIBUTIONS CREATING PERVASIVE PHENOMENON

Globalization and exponential growth of the BGSSs have initiated CSR particularly their responsibilities towards environmental performance and progress on socio-cultural issues such as human rights, transparency, and labor standards.

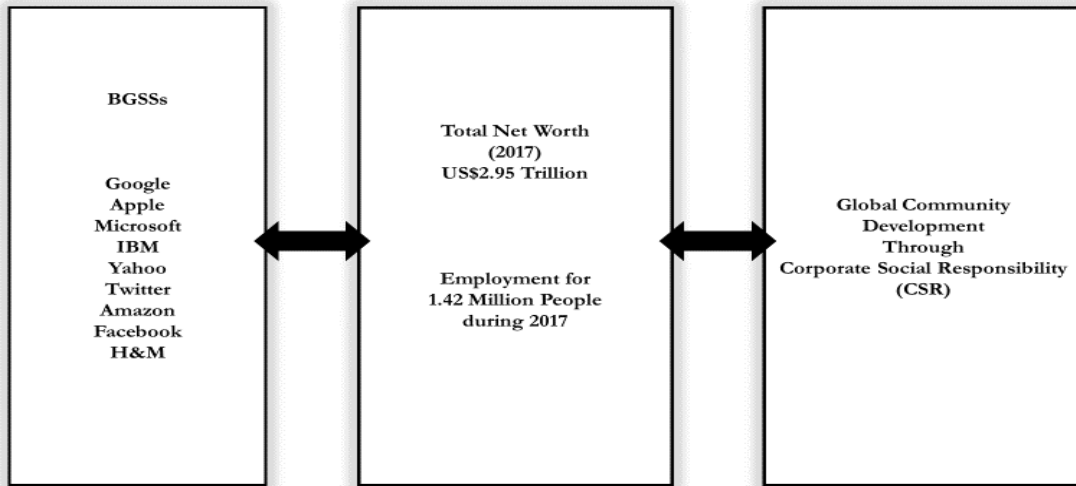


Figure 5. BGSSs' impact on global community development

Following factors as to why one solution pertaining to CSR may not be feasible:

- (i) the sovereignty of the most countries that involves the global community
- (ii) (diversity, regulation, culture and business practices of the various jurisdictions in which BGSSs operates.
- (iii) The uncertainty as to how to regulate the conduct of BGSSs in foreign jurisdictions.

CSR is a relationship between business organizations and the society. In today's world, CSR has taken a new meaning for the welfare of the society, particularly with respect to the environment and socio-cultural aspects. It is a voluntary behavior beyond legal compliance. laws, regulations, and norms that are necessary for good governance. Such BGSS voluntary behavior impact significantly in a positive way to make a difference in affecting individual's life and provides the means to meaningfully shape the future of BGSS pervasive phenomenon. The key word is pervasive indicates that a phenomenon is experienced because of technologies permeates all aspects of human lives. The nine BGSSs mentioned in this study are the pioneers in their field by creating and/or utilizing the emerging pervasive technologies (information communication technology, cognitive technology, wearable technology and other technologies) demonstrate various applications to create market value (net worth) of US\$ 2.953 Trillion and employed 1.42 million people and impacting positively their daily lives creating the pervasive phenomenon. CSR has become a pervasive topic in the business literature.

CURRENT STATE OF PERVASIVE PHENOMENON LITERATURE

The pervasive phenomenon process largely under developed in the literature. The most recent study of pervasive phenomenon process used by entrepreneurs is based upon pervasive technologies (Pimple, 2014). Wearable technology (WT) can spawn multiple business opportunities in the smart fashion wearable market. Cognitive technology (CT) can create and enable the cognitive couture sector. The author has surveyed many BGSSs who had all exploited very different market manifestations based on Internet, information communication technology (ICT), wearable technology, cognitive technology and other technologies. Since current literature is void of a comprehensive model of BGSS pervasive phenomenon, the author's quest is to propose a holistic model of pervasive phenomenon process with five key elements (top leadership team, technology, prior knowledge & experience, market opportunity, and internationalization process).

TOWARDS A PERVASIVE PHENOMENON MODEL

Thorough review of the literature provides evidence that “born-global” is a rapid internationalization process. Entrepreneurial firms internationalize from the inception stage and their competitive advantage is attained by exploiting the international market opportunity. This contribution asserts, that there is growing evidence of a born-global phenomenon (Bell et al; 2001). Gartner states “new venture creation is a complex phenomenon” (Gartner, 1985, p. 697). The ability of the top leadership team to recognize the market value of technological innovation based on their capacity of previous knowledge and experience to solve customer problems to meet the market need with compelling customer value proposition is the success of BGSS. The importance of understanding markets and customer need is at the epi-center of any successful BGSS strategy and the need for products to continually evolve with changes in the market and technology evolution. The proposed model (as shown in Figure 6) suggests that innovative technology development is a key component in the innovation process for all high-tech firms, large or small. However, the innovation is not based on technology alone. What this model really demonstrates is the importance of understanding the complex interactions of the five key elements. Studying the interactions across a wide range of firms would start to identify how to effectively synthesize the various model components. The presence of a motivated entrepreneur or top leadership team is not enough. Pervasive technologies require the essential knowledge and relevance prior experience of the market is essential. To be truly useful, usable and desirable for people, it is vitally important to see the future improvements in the appeal and application-oriented wearable technologies. Successful BGSSs create pervasive technologies (PT) that comprises of ICT, WT, CT and other technologies. Integration and interaction of all these key contributions (technology, top leadership team, market opportunity, knowledge and experience of the firm, and the internationalization process) of a BGSS develop significant effect on the way human beings’ life and the pervasive phenomenon process, as shown in the figure 6.

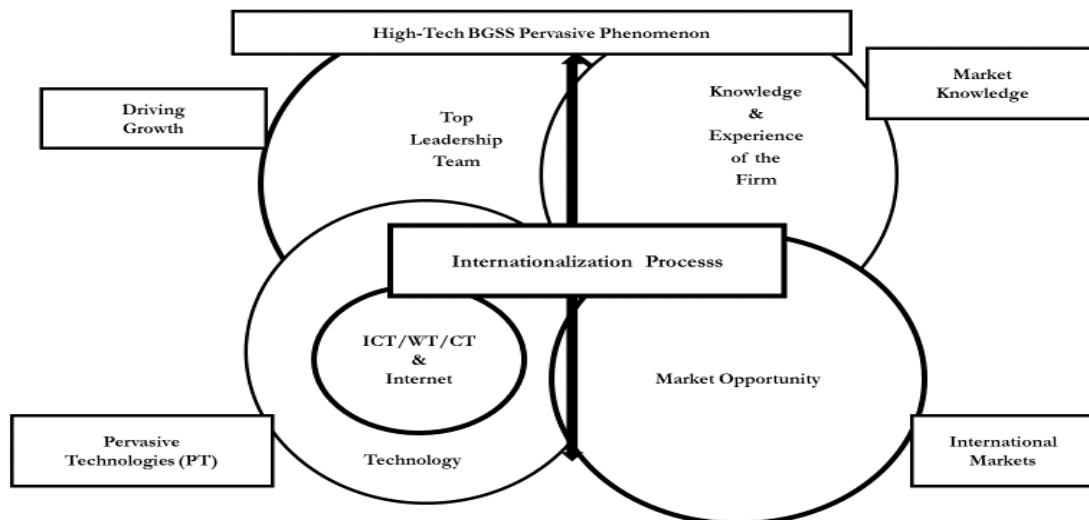


Figure 6. BGSS pervasive phenomenon model

DISCUSSION & CONCLUSION

The objective of this conceptual paper has been to analyse the literature to-date, to establish a holistic model to understand the pervasive phenomenon processes used in high-tech BGSS. The current literature provides one or two elements, but often in isolation for venture formation. This research deals with an interactive environment between five key elements (the top leadership team, the experience and knowledge within the firm, the pervasive technologies and the market opportunity, and internationalization process) for venture formation. This new model requires a mix of technical, en-

trepreneurial, international managerial experience and knowledge to transform an embryonic cutting-edge technology venture to continually execute innovation to match the market need to attain BGSS success. This research provides the BGSSs corporate social responsibility voluntary behavior that impacts significantly in a positive way to make a difference in effecting individual's life and provides the means to meaningfully shape the future of BGSS pervasive phenomenon. The contribution of this comprehensive model is a new way to view at pervasive technology innovation with a partnership between other various elements attuned to the international market opportunity and technology. Furthermore, it also reflects for nuance understanding regarding the interaction of the five elements of the holistic model. This study is the first to validate that BGSSs are successful in creating the pervasive phenomenon through pervasive technologies applications and pervasive advertising. The findings of this research provide information and engagement with the stakeholders of various industries providing benefit to a global community at large. The key word is pervasive to indicate that a phenomenon is experienced because of technologies and advertising permeates all aspects of human lives. Most marketing and advertising professionals are unaware of recent advances in pervasive technologies, the opportunities they offer, and the challenges they pose. Similarly, many pervasive technology researchers and professionals are on top of the recent technological advances but lack basic marketing and advertising expertise. This research highlights this gap. The technologies and products provided for various industries are already pervasive in the enterprise business offering application solutions that connect to enterprise systems by integrating the appropriate data to sustainance professionals to provide extraordinary experience. The author contends such experience as "opulence emulation" - a phenomenon that indicates the pervasiveness of the capitalist norms of pecuniary achievement. Digitization and its impact on human capital need the following indispensable competencies for BGSS success and sustainability: (i) Right mindset, (ii) Flexibility and adaptability, and (iii) Learning attitude including learn to unlearn. The world is full of possibilities and right human capital competencies are essential to make it happen. Evolving righteous mindset to match with technology and market evolution is a winner in any environment. A confident and incontestable attitude of work and life not only makes one a winner but also inspires a team. It is essential to inculcate a learning attitude in life. Based on the author's privileged leadership experience for many decades to work with TLT members who believed in potentiality enabled myriad ways to learn every day to overcome tremendous uncertainty in BGSS environment. Two distinguishable drivers are paramount for BGSS with respect to internationalization process. The first one is continual technology innovation and applications as an enabler for efficiency, communication and information about economic opportunities. The second driver is the funding and the support mechanisms for internationalization process that enables growth and perpetual value creation. BGSSs deserve much more consideration and appreciation as their scalable (growth) strategies could provide significant contributions in terms of knowing how for various industries. The invaluable insights described in this paper are relevant lessons to entrepreneurs to attain BGSS success. Entrepreneurs use pervasive advertising to promote to global consumers regarding the applications offered by pervasive technologies to affect everyone's life generating pervasive phenomenon.

There is a need for more case studies for various industries with different situations that contribute to the pervasive phenomenon to better understand how insentient technology evolves with the nourishment by entrepreneurs for high-tech BGSS success.

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BIOGRAPHY



Prafulla Kumar Padhi, serial entrepreneur, has over 41 years of global business experience. He has been a Founder, CEO and Chairman of the Board positions for more than 25 years and managed up to US\$1.2 Billion revenue operations. His education qualification includes a Master of Science degree from the prestigious Massachusetts Institute of Technology (MIT), Cambridge, USA and a graduate of the Ivy League Wharton School of Business, University of Pennsylvania (USA) and holds three diploma certificates from the Columbia University (USA), the Ivy League Dartmouth College (USA), and Kellogg School of Management (USA). For more than 40 years, Mr. Padhi has been involved in entrepreneurial venture endeavors and fund-raising activities in disruptive technology and smart fashion wearable ventures globally. So far, he has done business in 46 countries and traveled to 142 countries. He is an author, independent researcher, innovator and pioneer (with patent/copyright holding) in creation, design, marketing disruptive technologies and products.