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Wersją pierwotną Kwartalnika Naukowego „Organizacja i Zarządzanie" jest wersja papierowa

CONTENTS

RELEVANCE OF GANDHIAN PRINCIPLES IN THE DIGITAL ERA

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Abstract: The tenets and principles of Gandhi are relevant in present times too. These include: Satya (Truth); Ahimsa(Non-violence); Vegetarianism; Mauna (Silence); Nai Talim (Basic Education). His entire political strategy, satyagraha, ahimsa and fasting was based on the superiority of 'soul force' to physical force. Today, on the one side when we are advancing with technology, its' responsible use can help in addressing many problems of the society like corruption, lack of transparency, etc. The paper explores how Gandhian principles can be realized by adopting technology-driven interventions. The paper focuses mainly on issue of corruption and transparency and links how technology, can contribute to address the problem and realize 'truth' through transparency. The paper is based on review of secondary data

Keywords: Gandhiji's tenets, Information and communications technology, corruption.

Introduction

Gandhism contains the ideas and the body of work of the father of the nation, Mohandas karamchand Gandhi. Gandhism primarily comprises of Gandhiji's contributions to the conception of non-violent struggle, also called civil resistance. Truth and Non-violence are the main stay of Gandhism.

Gandhiji has been called a bodhisattva by Prof. Ramjee Singh. In fact, bodhisattva is a Sanskrit term which basically means a person who, driven by empathy, has engendered *bodhicitta*, which is an unprompted, on the spur wish to attain Buddhahood. This is deemed to be for the benefit of all responsive and sensitive beings. In fact, Bodhisattvas are a well-liked subject in Buddhist art of the twentieth century.

Gandhiji did not quite approve of the concept of 'Gandhism'. He explained the rationale for his disapproval by saying that there was no such concept as "Gandhism". He did not believe in leaving behind any sect after him. Moreover, he did not claim to have created or conceptualized any principle or doctrine that had hitherto not existed in the past. He claimed to have made a simple attempt to relate the eternal truths to peoples' daily lives and problems that exist. The opinions that he formed and the conclusions derived were not final. He claimed that all these were dynamic in nature and may change with time. He was modest when he said that he had nothing new to offer to the world by way of teaching. For, he believed that Truth and non-violence were as old as the hills.

In the absence of a "Gandhism" that was approved by Gandhi, there exists a school of thought that believes that we have to derive what Gandhism stands for, from Gandhiji's life, his work and living. An important deduction is that his philosophy essentially was based on "truth" and "non-violence". We need to acknowledge the truth that people are different at all levels and accept it. Second, that we should never resort to violence to settle inherent differences between human beings at all levels.

Martin Luther King Jr opined that if humanity is to progress, than Gandhi can never be ignored. He observed that ignoring Gandhi would be at our own risk.

Objective of the study

1. To study and understand Gandhian principles and their relevance in the present era.
2. To understand how technology could be used to enhance their effectiveness.

Source of data

Secondary data.

Principles that Gandhiji stood for:

The tenets of Gandhiji which are relevant in present times are as follows:

- Satya (Truth).
- Ahimsa(Non-violence).
- Vegetarianism.
- Mauna (Silence).
- Nai Talim (Basic Education).

Satya as propagated by Gandhiji

"Satyagraha" is essentially a combination of two words, namely the words *satya* which means "truth") as well as agraha which means "polite insistence". The word Agraha also means “holding firmly to". In other words, nothing but the truth exists or prevails. In the context of satyagraha, Truth would include the following:

a) Truth with respect to speech.
b) Reality as it exists.
c) Good or Worthy as opposed to, immoral, evil or bad.

Gandhiji had implicit faith in the concept of nonviolence:

According to him the entire world rested upon the foundation or bedrock of truth which is also called satya. In a nutshell, this is the inherent doctrine of Satyagraha.

Information and communications technology can be used as an effective tool to combat corruption

Information and communications Technology play a significant role in the fight against corruption. It facilitates movement of data or information amongst government institutions, amongst citizens as well as between the citizens and the government institutions. These technologies help promote translucence, answerability and public participation. There are several ways in which ICTs can play a pivotal role in triggering positive change by bringing about automated processes, excluding intermediaries, and limiting the role of bureaucracy and cutting out red-tape. In several developing countries the Program for ICT has succeeded in developing an exhaustive list of the possible domains in which ICTs can resolve the issues relating to corruption. In fact corruption can be contained by automation particularly with respect to repetitive operations. Thus, there are multiple ways in which ICTs can contribute to identify and reduce corruption and bribery. Technology innovations can be used by governments to improve the efficiency and transparency of public administration and to improve communication with and provide information to citizens.

Gandhiji and Non-violence

His entire political strategy was based on the superiority of 'soul force' to physical force. He opined that Nonviolence meant fighting or pitting of one's whole soul against the resolve or the will of the oppressor or the tyrant. In other words, to abstain from violence to settle inherent differences between human beings at all levels. This would include violence emanating from conflicts between people, nations, races, religions.

Use of technology to propagate Non-violence

People talk about the wisdom of the crowd in the age of the Internet. And electronic communication does harness the wisdom of the crowd. Satyagraha and non-violence depended on the word of mouth to spread. In contemporary times, digital technology would have facilitated faster dissemination of the principles amongst the public. Technology facilitates people to get faster insights about what to do, and they share these insights in the group electronically. This knowledge will be far greater and faster than the word of mouth, which was adopted in the time of yore.

Gandhiji and democracy

Gandhi's opinion of democracy was indeed remarkable. According to him, democracy was something that provided the weak the same chance as the strong. However, he was also equally way of this human institution as he felt that it had its flop side too. According to him the greater the institution the greater was the chance of abuse. Democracy, he believed was a great institution by itself and hence it was liable to be greatly abused.

Innovations in Technology facilitate effective democracy

Innovations in technology and social media have had a significant impact on democracy globally. Technology has empowered citizens to amplify their voices and hold governments accountable. But while citizens have begun to harness tech innovation, many democratic institutions – governments, parliaments and political parties – have been slower to react, often using outmoded processes to respond to increased citizen demands. Technology enables institutions to be more engaged with citizens. Information and communication technologies are making our world more democratic.

Gandhiji's views on education

According to Gandhiji, education should transform and revolutionized in such a manner that instead of answering the need of the imperial exploiter, the needs of the poorest of the poor should be fulfilled. He realized the important role played by basic or primary education and opined that irrespective of villages or cities, basic education links children across cities and villages to all that was best and needed in the country. He spoke about the relevance of taking Vidyapith to the villages to impart education to suit the need of the villagers.

Digital India initiatives to spread education in India

In keeping with the relevance and significance of education, the digital India initiatives put together a number of digital services for improving the dissemination of education in society. Various levels including the primary level, secondary level as well as higher education and research facilities, the various digital schemes in the educational sector have revolutionized the system in the country. 'SWAYAM' launched by the Government facilitates access to courses imparted in classrooms from ninth standard to post graduation. These courses can be accessed by any student anywhere at any time. This digital scheme brings education at the door step of numerous students and aims to bridge the digital divide. This scheme is indeed a major boon for underprivileged children who may not be able to access formal education due to various factors including lack of vital resources like time and money. 'ePATHSHALA' is one such scheme that facilitates dissemination of educational content through the channels like website and mobile app.

Several apps and programs like 'Mid-Day Meal Monitoring App', 'Shaala Sidhi' and 'Shaala Darpan' focus on the quality of school administration and evaluate the schools and kendriya vidyalas to enhance the quality of education. In the area of higher education Government has the 'National Scholarship Portal', 'eGranthalya', 'National Knowledge Network' to name a few.

These digital initiatives are aimed at improving the educational sector. They make an earnest attempt at reaching out to the underprivileged section of youngsters to facilitate them to avail of the fruits of digital revolution. In a nutshell, an attempt is made through digital revolution to bridge the gap between the privileged sections of society and the under privileged ones.

Relevance of Gandhism to India and the world outside

It would certainly not be an exaggeration to state that the entire world realizes the essence of *Gandhism* and that it would be wrong to premise that *Gandhism* has lost its relevance in the world. Indeed the irony is that like *Buddhism*, a religion that took birth in India is in the present, mostly prevalent outside India, similarly, the significance of *Gandhism* today is recognized outside India. In fact in several countries of the world activities along Gandhian lines are carried out in several countries across the Globe. There are very few countries in the world which are totally oblivious to Gandhian practice. In a nutshell, all across the globe there appears to be an awareness of the significance of non-violence. Mahatma Gandhi is a name that surpasses the bounds of race, religion and nation-states. In fact it has to be given due credit for having emerged as the prophetic voice of the twenty-first century. In today's world, Gandhiji is fondly remembered for his avid observance of the practice of non-violence and his ultimate humanism.

In fact one may wonder about the relevance of Gandhi in this all-permeating, avaricious, dubious and consumerist culture? One may wonder about the significance and relevance of Gandhiji as well as Gandhism to the modern world and what is the secret of his success?

Gandhiji has impacted several noteworthy International leaders, both spiritual and political. In fact the Tibetan leader Dalai Lama has put Gandhiji's success in the right perspective. According to him, there have been several Indian masters who have practiced and preached non-violence as a philosophy; however, Gandhiji was instrumental in producing a very sophisticated approach as he successfully implemented the noble philosophy of ahimsa in modern day politics. That, according to Dalai Lama was a very great thing.

Despite extensive practice of violence across the world over, eventually the power of guns will have to be changed by the will of the ordinary people. Dalai Lama believes that in order to fight these big wars, the common people of the world need Gandhism.

Disaku Ikeda, the Japanese Buddhist leader also takes great inspiration from Gandhi. He likens Gandhism to spiritual practice that is urged by the inner urging of the conscience.

The remarkable success Gandhiji was able to garner in South Africa which was embroiled in its fight for human rights and civil liberties is vindicated by the fact that his teachings were adopted not only by the South African Freedom fighter, Nelson Mandela, but also the former South African President De Klerk. Several Leaders, the World over were deeply influenced by Mahatma Gandhi. These include the greats like Dalai Lama, Desmond Tutu, Martin Luther King and Nelson Mandela.

In fact Martin Luther King was inspired by the tenets promoted by Gandhiji. He felt that Gandhiji won freedom for his country- men against the British based on the principles of Gandhism. Whether it was the willingness to go to jail, resisting the British by peaceful means, undertaking the Dandi March or simply boycotting British products, everything was carried out without resorting to violence. There is great resonance of the historic *Salt March* at Dandi with the courageous *Montgomery Bus Boycott* against racial segregation in United States.

In fact Barack Obama, former US President perceives Mahatma Gandhi as an inspiration and used to keep Gandhiji's portrait in his office as a champion of peace. According to him, he has always looked to Mahatma as an inspiration and that is so because he remark *In my life, I have always looked to Mahatma Gandhi as an inspiration, because he exemplifies the sort of* *transformation that can be brought about when ordinary people set out and come together to do something extraordinary.*

Aung San Suu Kyi, the Burmese leader who was under house arrest for several years, was greatly inspired by Gandhiji. She learnt the importance of fearlessness in order to be able to translate the doctrine of peace and reconciliation into practice.

Findings and conclusion

Gandhism is very much relevant in the present day world. Gandhi has inspired and will continue to inspire leaders – political, social and religious, all over the world. Whether is Joan Baez, the American folk singer and human rights activist, or Cesar Chavez, the American social activist, or Joanna Macy, the environmental activist, or Mubarak Awad, the non-violent Palestine leader, all these men found Gandhi and his nonviolent struggle highly inspirational. Thich Nhat Kanh, the Vietnamese Buddhist also derives inspiration from Gandhiji who focused and stressed upon the process rather than the end. Nhat once remarked that one may fail in their attempt, yet one may succeed in the correct action especially when the action is authentically nonviolent and is based on love and understanding. This is real Gandhism, he said. Thus the world over great men were deeply influenced and continue to be inspired by Gandhism. Gandhian principles of non-violence, self-sufficiency, communal harmony, simple living and truth find resonance in our daily existence. These are principles that can never go out of sync with human existence. Moreover these principles can be effectively utilized to find solutions to problems such as poverty, illiteracy, unemployment etc.

Thus as discussed above, given the fact that Gandhian principles are extremely relevant not only nationally but also internationally, this paper discusses how each of Gandhian principles can be propagated, thanks to the revolution that has taken place in the space of Information Technology.

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VIRAL NATURE OF CORRUPTION IN A WORLD OF BUSINESS AND ACADEMIA

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Abstract: Disruptive force of corruption and its ability to spread away like a virus is globally known and commonly understood. However, as one can notice while observing both business an academic life, this knowledge and understanding does not prevent corruptive activities from occurring. This paper aims to shed a light on viral nature of corruption and its influence on integrity in the academic community by presenting a particular set of academic community's behaviors that are destructive for its integrity as well as by presenting a universal set of instruments and methods for preventing both the higher education sector as well as business sector from corruption diffusion.

Keywords: corruption in academia, corruption in business, corruption as a virus, integrity, transparency.

1. Introduction

The selected cases of academic misconduct by various universities' members are usually described as a separate phenomenon without scrutiny of its organizational and societal context and the presented studies do not reveal the mutual impact between behaviors of different groups that compose the academic community. Will the student be more prone to participate in corrupt processes (e.g. such as buying promotional works) if they are aware that some faculties from the same university have committed plagiarism? Will the faculty perceive cheating as an unacceptable practice if they experience it quite often among their students? Will the experiences of colleagues' bribery (e.g. as a witness) increase the probability to one directly participate in such activity? These are the questions that are still waiting for a scientifically verified answer and that is why Gallegos & Kamnuansilpa (2014) suggest that there is a lack of research that would diagnose the corruption perception from many perspectives. Thus, there is a need for in-depth, multidimensional diagnosis of corrupt behavior perception from the perspectives of different internal stakeholders of the entities of higher education (not only students but also faculties and administrative staff) as well as for the investigation of the reasons of corruption diffusion among students, faculty members and the universities as a whole.

It is important to emphasize that today the subject of scientific interest becomes the perception of corruption understood as the theoretical, conceptual assigning of particular unethical behaviors as the corrupt behaviors, and the experience of corruption associated with the direct participation in corruption (active and passive corruption) as well as the indirect participation in corrupt processes (the role of corruption witness).

Some studies related to corrupt behaviors in higher education concentrate on recognition of the determinants of such conduct. The most discussed determinants are the demographics that shape the people's attitudes to the phenomenon of corruption. In the literature there were discussed demographics such as gender, age (Borkowski, & Urgas, 1998), the study profile (business-related or non-business) (Tse, &Au, 1997) or education level (undergraduates, graduates, post-graduates) (Lopez, Rechner, & Buchanan, 2005, Stachowicz-Stanusch, 2011). There has also been analyzed the impact of other environmental factors (see Peterson et al. 2001; Wimbush J.C. et al., 1997). Moreover, in the field of study that is focused on recognition of determinants of academic corruption, one may notice culture as another issue for discussion. For instance, Mirshekary & Lawrence (2009) investigated corrupt issues in relation to the universal ethical values and ethical behaviors in an international context with the use of cultural values as the significant variables. There were also other studies that were conducted from cross-national perspectives (Whipple, & Swords, 1992, Wankel et. al., 2011). Some of them focus on national cultures or contexts as comparative investigations were conducted between the United States and nations such as China and Mexico (Waite, & Allen, 2003), the Czech Republic (Preiss et al., 2013) or the United Arab Emirates (Williams et al., 2014). There were also scrutinized corrupt processes at the universities in European countries such as Portugal (Freire 2014) or Romania (Teodorescu, & Tudorel, 2009), African ones such as in Ghana (Kuranchie et al. 2014), those in Arabic regions such as Pakistan (Ramzan et al. 2012) or in Taiwan from the Asian continent (Lin, & Wen 2007). However, there is visible an empirical gap as there is a lack of studies that would consider the economic situation the research sample (especially of students). It would be worth of considering whether both demographic traits and economical status impact at all, and if yes, to what extent the diffusion of corruption, enabling it to spread like a virus.

This paper aims to conduct initial investigation in the area of perception and understanding of corruption in business and academia, linkages between academic curricula and practices and their influences on business performance as well as the description of determinants of viral nature of corruption.

2. Perception and experience of integrity and corruption in business and academia

Defining integrity, Peter Drucker (1992) argued that it is "concurrence between actions and words, between behavior and professed beliefs or values". Thus, it is the notion that is strongly associated with morality and is understood as one of personal virtues (Huang, 2011), that may be shaped by leaders, who may enhance ethical as well as unethical behaviors within an organization (Sims, & Brinkman, 2002). In the subject literature integrity is usually associated with particular attitudes and behaviors, which causes its recognition at the individual level (East, 2010). However, there has been noticed that a kind of integrity may be shaped and recognized at the organizational level, namely the institutional integrity (Bertram et al., 2009). This idea has also been reflected in academic institutions, but we still should be aware that the integrity of universities' authorities is not enough to build the university's integrity as a whole. Integrity of this kind of institution depends on integrity and moral attitudes of all the members of the academic community – students, faculties and academic staff (Stachowicz-Stanusch, 2012). That is why some efforts are made to create an environment that reflects the academic integrity in the individual attitude of academic community members (McGowan, 2005), but also in the organizational construct (McCabe et al., 2003, 2006). An instrument of such a rationalization of academic community members' behaviors, which functions at particular universities, is the ensuring of the ethical infrastructure, namely creating of adequate policies, procedures, codes, etc. (Kuranchie et al., 2014).

On the other hand, it is worth remembering that the problem of widely understood corruption became one of the most intensively discussed problems in the few recent decades. The problem is discussed not only in famous journals but increasingly often in scientific publications, including the papers of management sciences. Scientists have been trying to precisely define this phenomenon for years, although there still exists an opinion that the applied definitions are too general to be useful (Waite, & Allen, 2003). Some of the authors indicate material gain (Anechiaricho, & Jacobs, 1996), others focus on its private character (Nye, 1967), and others notice the strong embeddedness of this phenomenon in public office (e.g. Jain, 2001). Not surprisingly corruption is quite often discussed in association with sectors especially prone to the abuse of public functions, including police (Bouza, 2001), politics (Kotkin, & Sajo, 2002) or the health care sector (Nishtar, 2010). The sector of education has not been ignored in this discussion (see Hallak, & Poisson, 2007). An important field in these considerations is the widely understood field of business and economics education, as scrutinized by the common critics of this sector (see for instance Swanson, 2004; Bennis, & O'Toole, 2005, Sims, & Felton, 2006). Many scholars indicate higher education as the indirect cause of global corporate collapse and of the global economic crisis a few years ago (Ghoshal, 2005; Mitroff, 2004). However, there are some authors that express their hopes for actively shaping the future moral climate in business activity, as they notice that today's students will be the future employees, managers, executives and public officers (Jaffe, & Tsimerman, 2005). This is why in the paper there will be made efforts for identifying corrupt behaviors in academic organizations.

Most of the available research reports on the corruption phenomenon in higher education focus on cheating (Nowell, & Laufer, 1997; Teixeira 2013), which includes the use of prohibited crib notes, helping someone to cheat in a test, learning in advance what the test was about from someone who took it previously (Teixeira, & Rocha 2010), used unauthorized electronic equipments during exams, or work on assignment with others when asked for individual work (Lin, & Wen, 2007). This specific misconduct has been investigated in detail by a great number of authors. There have been indicated determinants of cheating, such as demographic characteristics, attitudes toward cheating, personality variables, and situational factors (Freire, 2014). Moreover, cheating occurs to be a very rational activity and it depends on the perception of potential benefits, risk of being caught and perceived costs of detection (Williams, & Hosek, 2003).

Cheating is also often associated with plagiarism (see Kiehl ,2006; Park, 2003), understood as the failure to properly credit ideas or materials taken from another, namely the deliberate use of another's work without any mention of the original author (East, 2010). A noticeable characteristic of the presented research is the concentration on dishonest conduct of students as they are the only group of interest in this field of investigation. Also the research on perception of corruption at the higher education sector are usually conducted just from a students' perspective (see McKibban, & Burdsal, 2013). But Rumyantseva (2005), who presented the taxonomy of corruption in higher education, argues that there exist the other aspects of corruption in that sector that include the various groups of the academic community in the investigation process. There has been distinguished the academic corruption which is connected with the relation between students and faculty, as well as the academic services corruption that includes the activity of administrative and university staff. Also Heyneman (2011) indicated corruption of different universities' members and divided examples of dishonest academic behaviors into two groups. The first one is the corruption committed for the personal gain which includes faculty research falsification, plagiarism, sexual favors and personal favoritism, as well as students' sexual exploitation, exchange cheating, and plagiarism. The second one is corruption for monetary gain, which is strongly related to bribery. There were mentioned behaviors such as purchasing accreditation (rectors buying from ministry of education), enrolment (students buying from the rector, dean, or enrolment committee), transcripts, housing, library use (bought by students from administrators) and grades (purchased from faculties). In accordance with this there are some research studies that indicate these just mentioned and other rarely investigated examples of academic misconduct, such as falsification of the biography in research papers (e.g., Stachowicz-Stanusch, 2012), nepotism (Orkodashvili, 2011), bribery (Jain, Shelly, 2013), financial frauds (Kranacher, 2013) or ghostwriting (Logdberg, 2011). This set of unethical behaviors among the academic community may be supplemented by the cases discussed in the Global Corruption Report on Education prepared in 2013 by Transparency International (Sweeney et al., 2013), where there are also mentioned practices such as teacher absenteeism (Ngwé, 2013), selling fake diplomas (Diallo, 2013), shadow education understood as providing extra-fee charging classes (Bray, 2013) or sexual harassment (Leach, 2013). Nnodum (2008) mentions also compelling students to buy handouts or extortion, neglect of duty (by faculties).

3. Corruption as a virus – a contagion effect

The occurrence of corruption is presented in a literature of the subject from quazi-medical point of view, comparing corruption to a virus which can be spread away almost without any control. As Mathur (2013) writes "the worst part of corruption is its contagion effect, like a contagious disease. There is a cascading effect of corruption, when the corruption is top down at any level of government or in private sector. A contagious disease spreads from one person to another by mere exposure to the diseased person. The spread of the disease of corruption requires a certain minimum level of corruption before it spreads to others and becomes the social norm. However, it is hard to pinpoint the minimum threshold because it is influenced by cultural traditions, lack of monitoring and accountability, lack of transparency and an incentive system that includes rules, regulations and laws." It is further proved that misconduct is definitely more infectious that ethical behavior. Dimmock and Gerken (2018) claim that contagiousness of employee fraud tells us that even your most honest employees become more likely to commit misconduct if they work alongside a dishonest individual. And while it would be nice to think that the honest employees would prompt the dishonest employees to better choices, that's rarely the case. Corruption has in the past gained the name of a virus which can be passed on from one person to another, developing a specific culture of corruption as it passes over to the next person. This infectious nature of corruption in particular has been theoretically illustrated in the collective corruption model of Ashforth and Anand (2003). Although this model concerns the spread of corrupt behavior inside the company, it is likely, like all infectious viruses, that corruption can pass not only from one person to another within a single company but also can pass from one company to another.

The infection can begin with one simple bribe. Organizations are like living organisms that can be infected by the virus of corruption. Similar to a viral contagion, corruption will spread throughout an organization if not treated intensively at the onset of symptoms with an antibiotic called "zero tolerance" (Henz, 2015).

There has been now a lot of empirical investigations being conducted in different part of the world giving evidence for a viral nature of corruption. For instance Quazi, Langley and Till (2013) explain “i.e. how one country’s corrupt practices spread to another country. It can be reasonably assumed that corruption is shaped by the culture or climate of doing business within a particular country, and these practices are shared to some extent by the neighboring countries. For example, if one country is more corrupt than its neighboring country, then the less corrupt country will be exposed to the corrupt practices in the more corrupt country through a variety of channels such as immigration, tourism or trade. Due to this exposure, the less corrupt country will likely contract some of these corrupt practices from the more corrupt country, and in turn pass some of them on to its own neighboring countries. It is, thereby, theoretically possible for corruption to spread from one country to its neighbors, but the rate at which corruption spreads from the originating country to each additional country should diminish with geographical distance, as the exposure of the neighboring countries to the corrupt practices of the originating country should weaken as the distance between them grows”. Other analyzes conducted by Das and DiRienzo (2012) in 42 countries in Africa and the Middle East based on results of Corruption Perception Index (CPI) by Transparency International show that corruption is indeed contagious between neighboring countries, and the contagion rate decays as the distance between countries grows further. Research by Attila (2008) base on “spatial dependency model” show that a country’s national level of corruption is positively correlated with its regional level of corruption (the average level of corruption in its neighboring countries), which suggests that corruption can spread from a country to its neighbors. This study also found that this corruption correlation can be explained by the level of economic development, foreign aid, and trade openness.

As an empirical study focused on the United States found that an increase in the levels of corruption in neighboring states of 10% led to increased levels of corruption in a state by 4-11%, seemingly confirming the contagious nature of corruption (Goel, and Nelson, 2007). Similarly, a 2008 multicountry study found that corruption can be viewed as a regional phenomenon and that any attempts at decreasing corruption in one nation will lead to decreased levels of corruption in neighboring countries (Becker et al., 2009; Dimant, and Tosato, 2017).

As Nekovee an Pinto notice “the hierarchical level at which the bad apples are located has significant impact on the corruption spreading dynamics. As one would expect, the higher the level at which the bad apples are located, the faster and wider the spread of corruption in the organization. However, if the organization is able to hire employees who are less likely to succumb to corrupt influences, then the differential impact of hierarchical level is even more pronounced, i.e., junior-level bad apples have a much lower impact on corruption spreading dynamics than senior-level bad apples. This implies that the testing of senior-level job applicants with regard to ethics should be conducted more rigorously than for junior-level job applicants. However, once again it seems that in real-life the opposite is true, and junior-level positions (e.g., sales staff in retail organizations, or tellers in consumer banking) are subjected to greater scrutiny on ethics than senior-level positions (e.g., sales managers, bank branch managers). Also, the socialization processes for junior employees (e.g., management trainees) is usually far more formal, rigorous and comprehensive than for senior employees. Also, the socialization processes for junior employees (e.g., management trainees) is usually far more formal, rigorous and comprehensive than for senior employees. Therefore if a senior employee is carrying a "corruption virus" with him or her, the lack of a rigorous socialization process will allow the virus to be retained and it could initiate a corruption contagion in the future" (Nekovee, Pinto, 2017).

4. Can one prevent corruption from spreading?

The presence of whistle-blowers can be an effective antidotum to corruption spreading (Nekovee, Pinto, 2017). As the authors say "even if 5% of the workforce are potential whistle-blowers then the chances of the corruption being inhibited are very high, and if this number can be raised to around 25%, then the impact of bad apples on corruption spreading will be negligible.

The study of Das and DiRienzo (2012) concluded that anti-corruption policy reforms enacted in a country can create positive externalities for its neighbors and help rein in corruption within a larger geographical area.

You can kill the virus if we see a company as a living organism, then some kind of preventive treatment should be prescribed for this disease. Compliance workshops can work much like vaccinations. With relevant case discussions and role-playing exercises, employees can learn about potential situations they could face, how to react, and what consequences could occur. Like an antivirus, this knowledge stays inside the employee and can be activated when needed. Bureaucracy provokes corruption and vice versa. To avoid this downward spiral, a company should establish internal processes that are as simple as possible to ensure transparency and employee accountability. Compliance Officers cannot do their jobs only from behind closed office doors. They must be easy to reach and well-known across the company. Trusted employees can be offered the additional role of "Compliance Promoter," and IT tools can ensure that an anonymous reporting system is available 24 hours a day. Compliance training sessions cannot be limited to presentations about rules and regulations. It they are, employees will only behave if they feel controlled. Instead, companies need to establish a values-based culture where employees understand their role inside the organization and how corruption could affect their job. In this culture, everyone is equipped to face difficult situations – and not just employees in typical risk groups such as sales or procurement. Is your company protected against this kind of "corruption contagion"? What kinds of “vaccinations” does your company have in place to stave off bribery and corruption? (Henz, 2015).

Understanding why co-workers make similar choices about whether to commit misconduct can guide managers in preventing misconduct. Given its nature, knowledge and social norms related to misconduct must be transmitted through informal channels such as social interactions. More generally, understanding why co-workers behave in similar ways has important implications for understanding how corporate culture arises and how managers can shape it (Dimmock, Gerken, 2018).

5. Conclusions

The phenomenon of corruption became one of the most important problems and topic of scientific discourse of the last decade. In the light of the recent corruption scandals, attempts of understanding what corruption is and how it occurs in an organization has driven scholars' attention, especially when the number of revealed corrupt scandals has risen dramatically, despite there being the more and more organizations that are carefully scrutinized. Unfortunately, our knowledge about this occurrence and about the way in which this independent entity (an organization) becomes a corrupted one is limited. However, increasingly more commonly attention is put on the strong roots of corruption in public duties. That is why the corruption is associated and discussed in relation to public sectors that are especially prone to abuse of public office, including the educational sector. A significant place in this area is the education sector of higher level, especially the entities educating in (widely understood) business. This idea is brought forward from common critics of this sector. Lots of authors indicate higher education as the indirect cause of large corporation collapses and the global moral crisis observed in the last decade.

There is still a need of elaboration of the universal model of academic corruption prevention and of integrity development in high education as well as providing the universities with a particular set of instruments and methods for academic corruption prevention and with practical recommendations, based on research results, for shaping the culture of academic integrity and the increase of universities' integrity. At the same time, there is a need to recognize and verify mechanisms of its performance for corruption prevention and to create the fundamentals for its efficient performance in a turbulent environment that rather encourages spreading of corruption than sustaining it from diffusion.

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TRIBE DEVELOPMENT THROUGH EMPOWERMENT AND TECHNOLOGY

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Abstract: The tribal communities are deep-rooted in the forests of southern India who are dependent on forest for their livelihood and striving for alternative sources of income to overcome vulnerability (Bijoy, and Ravi, 2003). Once the social evils in the tribal societies are removed, Mahatma Gandhi believed in the gradual empowerment of this honest and sincere group and their assimilation in the national stream through the generation of able leadership (Bina, 2017). The literacy of tribes is improved, and the tribes embrace the adoption of technology, like access to Direct to Home (DTH) and mobile phones. Technology could be made possible because of Central Government mobile network coverage in the hamlet areas. Tribes are mostly self-educated by nature and their capability to overcome natural calamity is very high. In South India, satanic worship (black magic) is deficient in the tribal community and uses of ayurvedic herbs as well as modern medicines are becoming popular. Lifestyle is gradually being modernized among the new generation, but at the same time, the barter system is continuing in the community. This article presents the critical observations and findings to assess the strengths and focuses on empowering the community through adoption of technology.

Keywords: Tribe, Empowerment, Technology.

Introduction

The Scheduled Tribes constitute 8.6% of the total population of India. 89.97% of them live in rural area and 10.03% in urban area. This community is advancing by the adoption of technologies like smartphones and the use of Dish TV which are creating an impact on the changing lifestyles and thus empowering the tribe community. 60% of women are working for their livelihood, and they save money. But the awareness of handling finance and availability of microcredit facilities are unknown to the community. They possess a unique skill set within the tribal population in the form of self-education by nature for sustainability. The community strongly believes in their values and enforces their decisions. Even though the literacy rates are improving in the new generation of the Tribes, the education level is shallow in rural areas (Nedungadi et al., 2018). Many of those who have higher education are expelled from their hamlets, for various reasons. Gandhi played a prominent role in uplifting the backward classes through multiple means to improve their living conditions. Ashram Shalas, residential schools for tribes in rural areas were promoted by Mahatma Gandhi to spread education and spirit of freedom in the rural and tribal areas of the state. The laws prevailing in the society for their betterment is not being taken advantage of this community due to their lack of awareness. Very few who attempt to get benefitted and come out of the area have not been back again. Hence it's essential to change the mindsets of the people to accept the learners into their community back with educational attainment and also educate the community by various modes of communication devices and empower them for sustainability.

Objectives

- To identify the current technology adoption in the tribal area.
- Government guidance and exploratory in the tribal community.
- To identify Sustainable factors among the Tribe Community.
- Humanistic Values among the Tribes.

Literature review and research gaps

The schedule tribes community is characterised by a distinctive culture, primitive traits, hesitation in contact to public, geographical isolation and social and economic backwardness. Low literacy among scheduled tribes is a result of inadequate facilities, illiterate home environment and non-recognition of tribal languages (Anju, 2018). There is a need for a Tribal Council that comprised of education, articulate and young leaders who could lead the islands towards active development by taking advantage of benefits offered from the government (Simronet et al., 2018). Findings from a study conducted a study to understand the prevalence of substance abuse and awareness about ill effects of the substance abuse after training area) 64% of the reported responses said their fathers were addicted to alcohol. b) 40% did agricultural work, and 11% were engaged in MGNREGA (Mahatma Gandhi, National Rural Employment Guarantee Act). It is observed that alcoholism and illiteracy of parents adversely affect their children (Nishanth et al., 2018). School atmosphere of de-notified children is also not favourable to withstand the attention of the children in the studies (Vijay, 2017).

(Prema, and Raghu, Feb. 2017), in their investigation identified that available technologies in Remote schools with poor internet connectivity and lack of infrastructure facilities adopted tablet-model to reduce absenteeism of teachers in and improve student’s performance with teaching techniques. There are various schemes available for the upliftment of tribal communities. Education is considered a pivotal element in determining the socio-economic development. Mithra and Singh (2013). Multiple Government Schemes exist for, and the ministry has sanctioned 184 Eklavya model residential schools with an objective to provide quality services to the tribal poor (Radhakrishnan, 2018). The Digital India campaign run by GOI has an aim to strengthen the electronic service and Government services. Forests provide wood and non-wood forest products like pulpwood, medicinal plants, fibres, flosses, resins, honey, wax, etc. which helps them with the alternative sources of livelihood (Sivaram, 2000)”. There are many problems and challenges faced by the tribal community (Hugara et al., 2009). It is essential to identify the threats to the community development and encourage the well-being of the community by providing opportunities for growth and advancement. “Once the social evils in the tribal societies are removed, Mahatma Gandhi believed in the gradual empowerment of this honest and sincere group and their assimilation in the national stream through the generation of able leadership”.

Methodology

The data collected for the study is through Primary and secondary sources. The primary data is gathered through interaction with the tribal community as a volunteer during a disaster response. Interviewed a social worker working for satisfying the needs of these community people. The data is also collected from the community heads to know a brief history of their lifestyle and the values and customs practiced. The secondary information is collected from the research papers for understanding the support over decades for great leaders and their role in community development. Data is also received from Census report, 2001 and 2011 for obtaining the statistics on the Tribal community population, educational attainment, technology users, and accessibility to various communication sources.

Data Representation

Table 1.
Data collected from 144 families, in three different hamlets in and around Western ghats, are studied

DATA REPRESENTATION							
Hamlet – No of Family's	**Adult Numbers**	**Total Mobile User**	**Smart Phone**	**Keypad Mobile**	**Unknown to Operate**	**Television with Satellite Dish**	**Aadhaar Enrolment**
A-28	72	52	17	35	0	23	100%
B-73	127	87	34	53	7	56	100%
C-43	105	42	17	25	4	34	100%
144	**304**	**181**	**68**	**113**	**11**	**113**	**100%**

The data presented above is a primary data gathered for the study. The data shows that out of total female population 29% of women are using mobiles and out of total male population 92% men are using mobiles.

Data analysis

1. Comparison of Hamlet wise mobile users
   In Hamlet A 52/72 * 100 = 72, in Hamlet B 87/127 * 100 = 68%, in Hamlet C 42/105 * 100 = 40% adult population is using mobiles. In Hamlet C, women are probably more.
2. No. of Televisions with Satellite Dish
   Hamlet A-82 %, B-76%, C-79% the population using Televisions with Satellite Dish is almost same in all Hamlets, not much difference. It shows that there is a satisfactory improvement in tribal community empowerment – one technology helps another technology, and that leads to sustainable development – Gandhian philosophy is achieved to a certain extent.
3. No. of persons unknown to operate is very small (negligible) in all hamlets, which shows that human approaches (learning from each other, helpful, supportive, feeling of self-reliance etc.) are playing a major role and they are responsible for sustainability.

Technology + Humanistic approaches lead to the empowerment of tribal community and hence sustainability development (Singh et al., 2018). Aadhar enrollment is also 100% – shows the tribe's awareness, self-actualisation, which are again humanistic, approaches to nation's development.

Table 2.
SWOT Analysis

SWOT		
	Helpful	**Harmful**
Internal	Strengths Organic Resources Self sustainably Identification Technology adoption Promoter support	Weakness Awareness of the market Trend Mingle with other society Finance handling & Fund utilization Ostracism
External	Opportunities Women Empowerment Technology awareness and training Creativity Education Infrastructure & Health	Threats Alcoholism Child Birth Ratio Technology security

In SWOT analysis, "mingle with other society" is one weakness, which can be used as one human approach (that is acceptance of tribal community by other urban communities for country's sustainable development). Tribal community is hesitant and not willing to come out into society due to their incompetent factors such as low educational attainment and completely different livelihood. Thus, Other communities can go to these weak sectioned people provide them with the required support and bring them out into the society gradually. Ones who come out and benefit from various schemes and measures can further motivate and support their community wellbeing.

As Alcoholism is a Threat, it may be because of lack of awareness. Campaigns can be organised to create social consciousness from the perspective of the community's wellbeing.

Sustainably enhancement factors – The Strengths of the Community are the true ingredients for sustainability development in the current scenario.

- Organic Resources.
- Unique skill sets.
- Self Reliance.
- Identification.
- Technology adoption.
- Promoter support.

Tribal community though they are vulnerable, they possess certain unique features which help them towards a sustainable livelihood organic resources like fruits and vegetables from their home gardens, naturally available fruits in the dense forests, fibre and other products, medicinal herbs (vattamulyam) at their hand stretch for medicinal purposes etc. These medicinal herbs are highly expensive and are being exported. They also possess a specific unique skill set like learning by nature, experiencing the art of earning a livelihood by practising nattuvaidhya (traditional tribal treatment).

The community is self-reliant concerning their confidence, independent gaining by household women, income earned by women run most of the families. They are well versed with few techniques of protecting themselves from the consequences of disasters. During disasters this community though it lacks the capacity resources to withstand the danger but it was quite surprising to know that this population was not much affected, they climbed and resided on the tree branches during floods and landslides and survived with the available fruits in those trees. 70% of the total population is accessible to the Satellite Dish network, and 70% shows the usage of mobile phones. There are instances like people are upgraded and hold android sets too. This basic knowledge can be made use of to empower them for attaining literacy rates (Neelam, and Devi, 2015). The government has issued the tablets for few people, but further support concerning directions of usage for said purpose is not achieved. This shows that they are interested in the modern lifestyle, but they are dependent on a few individuals who know to operate these devices.

Due to lack of literacy level, people are unaware of the societal updates regarding benefits available to these communities. The government can organise the programmes through satellite means to spread education and also provide local schools with essential amenities for their development. The statistics show 100% Aadhar (12-digit unique identity number for residents of India) enrolment which is not found even in a civilised society in urban and semi-urban areas. This reveals the fact that they are aiming at the benefits that can be availed by possessing a unique identity number. But they strongly uphold their values and are reluctant to cross the boundaries of their dwelling places. Tribal community possess the unique skill of identifying and cultivating medicinal herbs (one-time medicine) for peculiar diseases. Those ideas can be nurtured and promoted by the Government support during disasters. Most of the women are self-employed on small occupations and earning but are unaware of savings. These women can be empowered by spreading the knowledge of savings and variety of schemes for their benefit.

Findings

Due to the adoption of technology, literacy rates of rural tribes are increasing gradually. Rural area network coverage from the government telecommunication service providers is helping to access the technology for betterment. Affordable phones within low range are helping tribes to buy mobile phones. Access of satellite TV in the rural area is beneficial to the tribes in improving their lifestyle and getting connected to the Unique society identification (AADHAR) card is available for all, for getting benefits like ration and grants from the Government.

Suggestion and conclusion

Usage of interactive technology will improve the quality of education in the tribal area. Providing technology awareness is very important for tribes, to safeguard them from exploitation. Satellite television can play a significant role in communication. Within the tribes, ostracism (Expulsion from the society) is an issue, and enforcement of the law is needed. Early marriage in tribes are barriers for their new generation development.

Scope for further study

Study about internet usage in smartphones and the use of mobile applications among the tribes. Research on television channels with audio-visual most at the comfort zone of rural tribes. Tribal product marketing under e-commerce.

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THE MAIN THING IS TO KEEP THE MAIN THING, THE MAIN THING

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Abstract: The title of this paper is to draw attention to the deteriorating and some say despicable conditions in the academic world. The paper utilizes the critical research method which is an emerging research paradigm in educational research. It also attempts to encompass a somewhat light-hearted word-fun approach to make a very serious problem more palatable reading. Its aim is to promote change. The work here focuses on illuminating the legacy conditions in the infancy of public education and following the mutations leading to today's conditions of companies, organizations and individuals or pigs at the trough who has forsaken learning for earnings and profits.

Revealed in the research are such enlightening findings as in the National Center for Education's 120 Years of American Education: A Statistical Portrait. The 107-page report. covers education characteristics of the population, enrollment rates, educational attainment, illiteracy, income, elementary and secondary education, statistical trends, enrollment, school attendance, pupil/teacher ratios, student assessment (which discusses test results trends), high school graduates, public elementary and secondary school, revenues, expenditures, higher education, enrollment, institutions and professional staff, degrees conferred, master's degrees, doctor's degrees, first-professional degrees, revenues for higher education, expenditures, endowments and physical plants. What the report does not mention not even once in all its 107 pages, 21 sets of figures and 37 tables is the word learning. Also demonstrated is the current level of the very poor results of products of the U.S. educational system by discussing the historical performances of U.S. students on international achievement tests. The research reveals both the intended and unintended consequences of grade inflation, student cheating, professor/teacher good grades for better class review problems and the false sense of learning. The purpose of this research is to (a) to identify trends and factors negatively impacting student learning; (b) inform to help solicit change and mitigate future risk factors and (c) challenge the reader to become part of the solution. These findings and the continuation of research activity will be used to leverage additional interventional support specifically for implementation to reverse the trend of profitability at the expense of student learning.

Keywords: education, grades, scholastic, learning, ethics, motivation.

Introduction

The title to this paper the main thing is to keep the main thing the main thing is accredited to Stephen Covey. This saying is about staying absorbed, focused, motivated and dedicated on what is truly important, significant, essential and imperative. I was once told by a former Air Force One pilot when things go wrong in the air the order in which you solve problems is fix what will kill you first, first. The academic world seems to forgotten the main thing and has become distracted by all the non-main things stunting progress in academia. Academia has forgotten to fix what will kill it first, first. It is imperative to learn from past mistakes and come up with a healthier process to keep focused on what is important or the main thing. Moving from assessing performance goals to achieving learning outcomes necessitates a novel method of thinking. Paradoxical thinking verses cause and effect thinking.

However, first one has to define or determine what the main thing is. Stephen Covey also has been credited with saying, “The biggest communication problem is we do not listen to understand. Most listen with the intent to reply, to control, to manipulate” (Covey, 2004. p. 240) and “The way we see the problem is the problem” (Covey, 2004, p. 40). One can postulate academia is guilty of listening to reply, to control, to manipulate and to having a skewered view of the problem. Most of us have heard a version of the saying what gets measured gets done or improves. When scholastic performance is measured by grades, grades improve as they been on a continuous bases for years. Several paradoxes have occurred as a result. First actual learning, the attainment of knowledge, awareness, skills, and abilities through understanding, experience, study, education, and scholarship, suffer as has happened during this long period of inflationary grades. A second paradox occurred simultaneously with the unintended consequence of diminishing students’ ethics and morals which have plummeted. The third paradox is grades remove students’ intrinsic motivation, ethical values, and morals, giving evaluators a false assessment foundation on which to determine what long-term knowledge was acquired or learned. A fourth and more damaging paradox arises because of the way one sees the problem if one actually sees it at all. We continue to measure the wrong things. What more evidence do we need to convince ourselves we are concerned with and measuring the wrong things than just reading the 1993 *National Center for Education’s 120 Years of American Education: A Statistical portrait*? Snyder states (1993).

From humble beginnings 120 years ago, the National Center for Education Statistics has emerged as one of the major statistical agencies of the federal government. Today, it is headed by a Commissioner of Education Statistics and has a staff of approximately 130 people. It issues approximately 175 publications a year. These documents include early releases, bulletins, statistical reports, directories, and handbooks of standard terminology. Electronic formats, including data tapes, diskettes, CD-ROMs, and bulletin boards, are also used to make data available to the public (p. 4).

What do the words plant-fund, livestock, dairy products and creameries have in common? They are all mentioned more than the word learning in the *National Center for Education's 120 Years of American Education: A Statistical Portrait.* The 107 page report covers education characteristics of the population, enrollment rates, educational attainment, illiteracy, income, elementary and secondary education, statistical trends, enrollment, school attendance, pupil/teacher ratios, student assessment (which discusses test results trends), high school graduates, public elementary and secondary school, revenues, expenditures, higher education, enrollment, institutions and professional staff, degrees conferred, master's degrees, doctor's degrees, first-professional degrees, revenues for higher education, expenditures, endowments and physical plants. What the report does not mention not even once in all its 107 pages, 21 sets of figures and 37 tables is the word learning. Some portrait of education!

The contents of this chapter shall demonstrate the current level of the results of the U.S. educational system by discussing the historical performances of U.S. students on international achievement tests. It will reveal both the intended and untended consequences of grade inflation and the false sense of learning it has provided the educational community. Among these consequences it will discuss the monumental drift in ethical values of student behavior. The conflict of numerous organizational and personal interests in the educational system are addressed as the pigs, which are so numerous it is not possible to name them all in the body of the chapter. Instead a partial elongated listed of the numerous industrious these companies belong to is offered at the end of the chapter to help the reader understand just how gargantuan the competition for the almighty educational dollar has become. Most of these companies have a self-interest platform causing education to appear as a zero sum game when in fact learning is perhaps the most pure form of synergy. Learning cannot be given without a recipient, once received cannot be given back, and when utilized is spread to others with a natural multiplying butterfly effect which by definition is not a zero sum game as everybody wins or dare it be said *profits* from it.

Moving beyond the conspiracy of thousands

What is the current state of learning in the United States? If you believe the claims of thousands and thousands of stakeholders in the educational system it is rosy, successful and if given even more money doing more of the same would be even better. What has history taught us? The Association for the Evaluation of Educational Achievement (IEA) in 1965 conducted a study of mathematical achievement in 12 countries asking high school students to solve 70 math problems. The highest scoring countries were Israel (a mean score of 36.4 correct items), England (35.2), Belgium (34.6), and France (33.4). U.S. students placed last, with a mean score of 13.8, less than half of that of all four of the top countries. In 1973, the results of science tests of high school students the U.S. rank was 14 out of 14 countries (Heim, 2016).

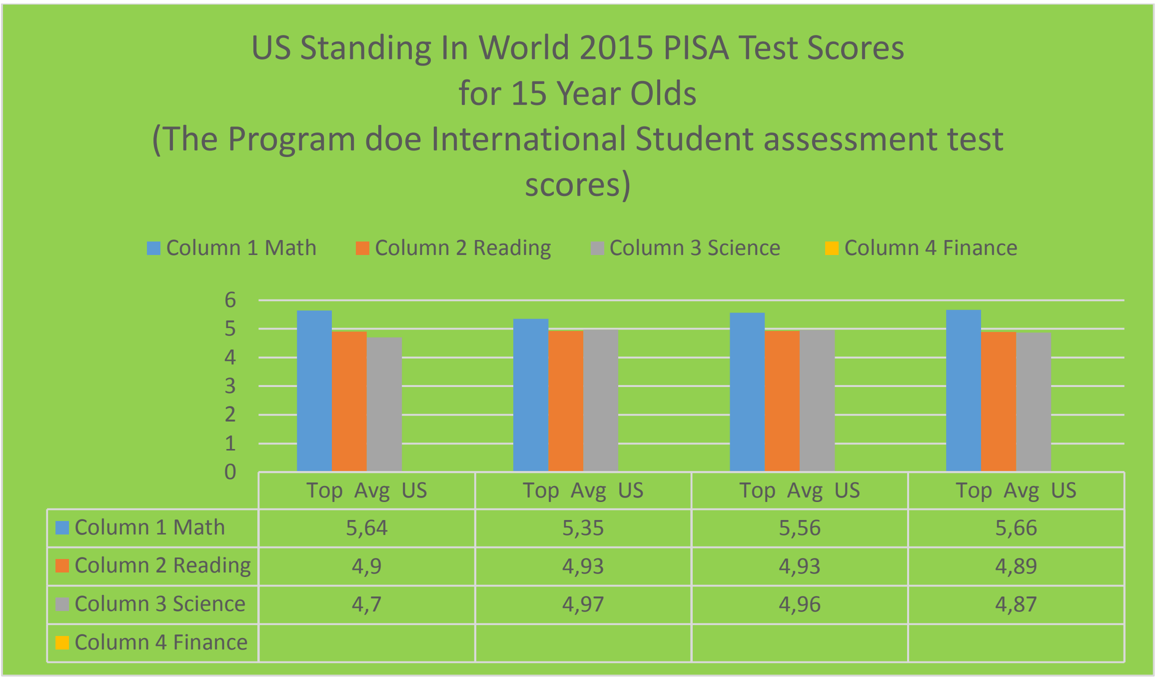
In the mid-1980s, the U.S. ranking in biology was last out of 13 countries; in chemistry 11 out of 13 countries; in physics was 9 out of 13 countries. In 1991, the U.S. rank in science was 13 out of 15. In 1981-82 the IEA conducted another international assessment of various mathematical aptitudes assessing high school seniors on six topics including, algebra, geometry, elementary functions number systems, calculus, sets and relations and probability and statistics. Hong Kong students followed by Japanese students scored the best. The United States ranked last among advanced industrial countries (Heim, 2016).

Interestingly, the authors stated the 12th grade level of the U.S. curriculum exemplified a secondary school (Junior High School) elsewhere, while the curriculum of most other nations resembled a beginning college level. Apparently, espousing the author's belief lower expectations for U.S. students may account for the poor showing of its students. In 1989, 12 nations and Canadian provinces partook in another mathematics assessment conducted by the Educational Testing Service. Korea, French Quebec, and British Columbia finished one, two and three. The United States ranked dead last again (Heim, 2016).

In the 1990s another international study accessed 13 year olds in mathematics in 15 countries. This time United States moved up to finish second to last edging out student's from Jordan. Fast forward to the current state of U.S. students. In math, U.S. high school students continue to lag behind their peers falling even further behind fellow global students, according to results released in a December 2016 study. Continuing research results comparing academic accomplishment in 73 countries delivers more deflating news. In reading and science literacy U.S. high school students have failed to make up any ground against their international counterparts (Heim, 2016).

As evidenced in Figure 1 in 2015, the latest Program for International Student Assessment (PISA) measuring math literacy rated U.S. students 40th in the world. This continues a dismal trend where the U.S. average math score of 470 denotes only a marginal gain in the past two assessments placing 12th in 2012 and 18th place in 2009. Moreover, the U.S. score of 470 was 23 points inferior to the average in the survey (Heim, 2016).

As demonstrated in Table 1 in reading and science, U.S. students did better but still were only maintaining pace with their rankings comparatively unchanged from prior years. Ranking 25th in science literacy and 24th in reading literacy. Singapore managed the hat trick leading all countries in all categories. China, Japan, Korea, Canada, Switzerland, Estonia, Australia and New Zealand rounded out the other top-performances (Heim, 2016).



Comments on the Organization for Economic Cooperation and Development (OECD) baseline Level 2 proficiency testing results within the above testing:

Math

The OECD average was 490. The ranged was from a high of 564 for Singapore to a low of 328 in Dominican Republic. The US scored 470. The U.S. score was not significantly different than 6 other education systems. It was lower than 28 education systems, but superior than the lowest 35 education systems.

Reading

The OECD average was 493 for reading. Singapore scored the highest 535 while Lebanon and Kosovo tied with 347 for the lowest score. The U.S.score was 497. There were 14 education systems scoring higher than the US, 42 lower and 13 about the same.

Science

The OECD average was 493. Again Singapore with 556 was the leader while the Dominican Republic's 332 scored the lowest. The U.S. average score was 496, about the same as 12 other education systems, lower than 18 others and higher than 39 other systems.

Financial

The OECD average was 489. B_S_J_G China (B-S-J-G (China) refers to the four PISA participating China provinces: Beijing, Shanghai, Jiangsu, and Guangdong) scored 566 for the top ranking while Brazil's 393 was the lowest. The US score of 487 was the 7^{th} best with 62 scores lower than the US.

Figure 1. U.S. Standing in World 2015 PISA test Scores for 15 Year Olds. Note: The OECD average is the average of the national average scores of the 10 OECD member countries that participated in the financial literacy assessment, with each system weighted equally. SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2015.

Table 1.

U.S. PISA scores over 15 years (200-2015)

Year	2000	2003	2006	2009	2012	2015
Reading	504	495		500	498	497
Math		483	474	487	481	470
Science			489	502	497	496
Financial Literacy					492	487
Problem Solving					508	520

The United States continues to linger at the international mean for reading and science literacy. The U.S. mathematics literacy score was the lowest score ever recorded at 470. Note: not every subject is tested every three years. National Center for Educational Statistics 2016

All this has occurred while grade inflation has been on a very rapid raise. What gets measured gets done so when performance is measured performance improves. When that performance is measured by grades, grades improve and they have on a continuous bases for years. The paradox is actual learning has suffered during this long period of inflationary grades with the unintended negative consequences to students' ethics and morals which have plummeted.

Marc Tucker, president of the National Center on Education and the Economy reviewing the results from Chinese students thinks the United States should study how a country still comparatively poor can outperform students from the wealthiest nation in the world. Accordingly, Tucker believes teachers should work together in teams in a disciplined routine to get better and better at teaching and to constantly improve the learning of their students. Pronouncing the PISA results a sobering revelation, U.S. Education Secretary John B. King Jr. acknowledged and recognized U.S. students pale in comparison to their peers (Heim, 2016).

This study also has its disbelievers. Yong Zhao, a professor in the School of Education at the University of Kansas believes the results basically only demonstrate how well Chinese students take tests and the results have nothing to do with real life or the quality of education. Disparagements to these tests and assessments also exist. There are those who postulate the extraordinarily high United States poverty rate contributes to the poor scores. Research exists establishing students living in poverty tend to score lower than students from more prosperous families. They extrapolate disregarding the scores of poverty stricken students from the U.S.'s tests scores, the U.S. scores would then elevate toward the top in world scoring (Heim, 2016).

The second predominant disapproval is the impression assessments contain an inherent advantage for nations having a more centralized uniform curriculum. This argument supports and is utilized to excuse or explain poor U.S. student performance since the U.S has no centralized curriculum. No evidence or research exists to support if the U.S. had a uniform curriculum or had a more centralized uniform curriculum its scores would significantly improve.

Measuring the Right Things, Thus Starving the Pigs at the Trough

There is not a pig with a bigger appetite. Note: the term *pig* is an anti-euphemism utilized throughout this chapter to denote any individual, person, group, administration, institution, organization, government or quasi government entity who puts its own interests, ego, politics and/or profits before, ahead of or in place of the main thing of accomplishing student learning.

How Did We Get Here? Where is Here?

Weighing the pig does not make it stouter, but making changes based on relevant data such as changing its diet to promote weight gain will. So how did we get here? What follows is the academic and social argument over grade inflation. Grade inflation is the systemic escalation in grade point averages without a corresponding increase in learning. How we got here is another question worthy of exploring beginning with grading systems and the resultant from those systems.

Table 2.
Average Grade Point Averages Tends

Average GPA					
Year	**1983**	**1993**	**2003**	**2013**	**2023**
All Schools	2.85	2.95	3.08	3.16	?
Public Schools	2.75	2.9	3.01	3.175	?
Private Schools	2.90	3.10	3.25	3.3125	?

Source: Data was extrapolated from Stuart Rojstraczer & Christopher Healy (2012) Teachers College Record, Volume 11, Number 7, 2012, http://www.tcrecord.org, ID Number: 16473, Date Accessed: 7/13/2011, 12:42:27 PM and GradeInflation.com.

The figure above displays the average undergraduate GPAs for four-year American colleges and universities in decade intervals starting in 1983.

The term grade inflation denotes an upsurge in grade point averages over time sans an equivalent growth in achievement and learning. Table 3 provides a very clear picture of grade point average (GPA) trends nationwide for both colleges and universities. Grade inflation has generated a nervousness regarding declining academic rigor and of standards in high schools and higher education over the past two decades. Studies of elite Ivy League as demonstrated in Graph 1 and West Coast Universities serve as a prime example. More than 90 percent of Harvard graduates received honors in 2001 while less than 10 percent of the grades earned at Harvard University were C+ or lower. More than 90 percent of all grades given at Stanford University in the last three decades have been above B. These facts lend themselves to the argument for the existence of grade inflation. Trends such as these and numerous other colleges and universities suggests grading systems are allowing artificially high grades to exist without a proven progression in learning (Nolan, 2008).

Chart below reflects the average undergraduates' grade point average for the identified Ivy League Schools. Its purpose is to serve as a best estimate example of the overall grade inflation taking place during the last 60 years.

Table 3.
Average Grade Point Averages for Graduating Students

	1960	1970	1980	1990	2000	2010
Brown				3.39	3.5	3.6
Columbia				3.19	3.35	3.41
Cornell			3.2	3.18	3.35	3.38
Dartmouth	2.59	2.8	3.05	3.2	3.25	3.2
Harvard	2.7	2.8	3.05	3.3	3.4	3.42
Princeton		2.8	3.05	3.3	3.4	3.42
U Penn				3.39	3.375	3.41
Yale	2.6	2.79	3.15	3.14	3.14	3.5

Extrapolated from Stuart Rojstaczer's The Ivy League's crazy grade inflation, in one chart (2014, August 27). *The Economist* retrieved April 25, 2018, from: https://www.ivycoach.com/the-ivy-coach-blog/ivy-league/ivy-league-grade-inflation/.

In the one room school houses of the 1800's students were grouped into grade levels based on similar ages. The principal procedure for evaluations concentrated on formal progress evaluations reported directly to parents. Learners were accessed for skills mastered and those still needing work. Academically this is referred to as a narrative report card.

Political and social policy modifications of compulsory school attendance significantly increased the number of students requiring the nation to build nearly 10,000 more high schools adding to the existing 500. This had a compounding aspect to it. Additional students meant more attention on curriculum and therefore requiring more time accessing student's work. These quite hasty changes necessitated teachers' transformation from the time consuming narrative report cards to a percentages quantification for evaluating student learning. This late 1800's edifice functioned as the predecessor for the grading system utilized today (Orkodashvili, 2013).

This change was not without its cynics. Daniel Starch and Edward Elliott's research determined teachers, in this case, high school English teachers graded the same two papers with a 34 percentage point (64 to 98) and a 47 percentage point ranges (50 to 97). Thus, some teachers graded the paper as an unqualified *A* effort while other teachers graded the identical work an absolute failure (Starch and Elliott, 1912). The researchers continued their research of math teachers the subsequent year with a comparable study with mathematics teachers grading geometry work. These teachers demonstrated an even grander discrepancy in grades. Scores differed 67 points from a range of 28 to 95 (Starch and Elliott, 1913).

These two studies and several other studies served as sufficient evidence to create a move from percentage grading to a structure encompassing fewer but larger classifications. The five-point scale of A, B, C, D, F, was created. This arrangement lent itself to its dissection into plus and minuses, in an endeavor to grade more precisely. The acknowledgement of the subjectivity in grading from studies such as Starch and Elliott's allowed for the justification for modification of the grading system endeavoring to diminish the subjectivity in grading. The bell-shaped curve was one such method. The bell shaped curved was the resultant of the disbursement pattern of student intelligence scores. What could be more just than utilizing the same percentages for grades as the resultant from students' intelligence test scores to issue grades? One can see the correlation in Figures 2 and 3. This normal probability curve gave every appearance of being fair, equitable and justified without having to provide much explanation to parents for their student having failing marks. At this point in time student learning, achievement and intrinsic intelligence were understood to be directly correlated. The problem, of course, was grades were interrelated to other students' work and not to learning. In fact, this bell curve system gave teachers an easy grading pass at the expense of students (Guskey and Pollio, 2002).

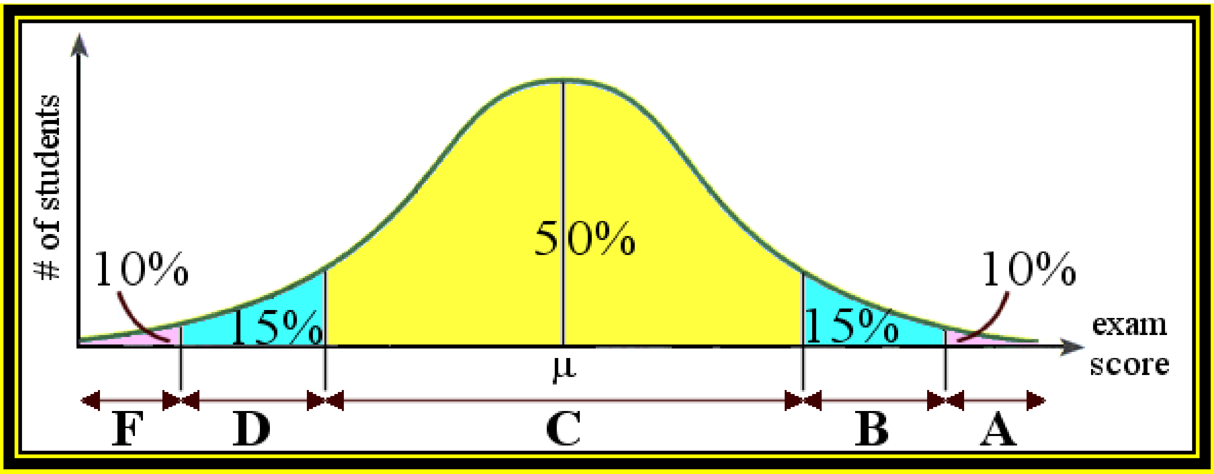


Figure 2. Bell Curve

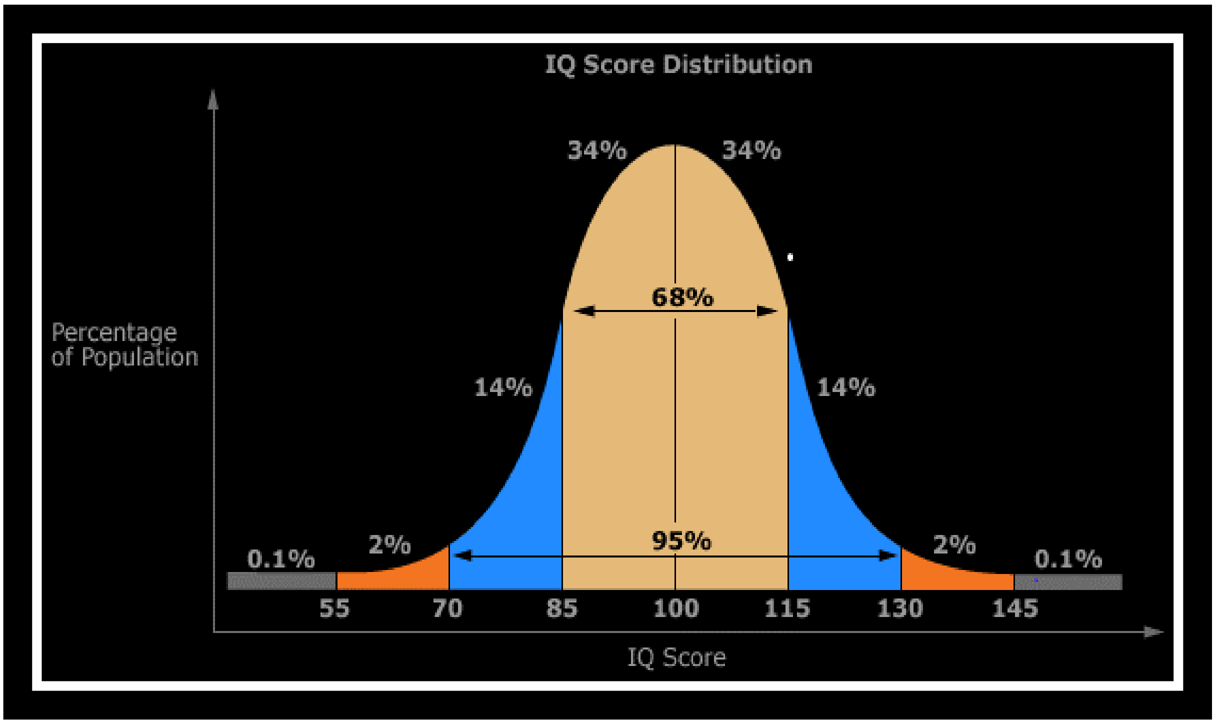


Figure 3. IQ Score Distribution**.** Note the very close correlation to intelligence or IQ score distribution below.

As the voluminous deficiencies of the bell-curve became abundantly obvious in the twenty-first century numerous systems began to sprout up. The development of these systems occurred during the same time as the development and proliferation of the privatization and commercialization of education. Grades developed as marketing tools to attract and retain students and grading systems suffered as a result. Some institutions eradicated grades altogether, embedding pass/fail grading systems. Others relapsed back to the narrative system (Guskey, & Marzano, 2002).

Mariam Orkodashvili believes the grade inflation ignited in the 1980s. In the U.S. in the 1930s, the average GPA hovered at 2.35. In the 1950s, the average GPA had ratcheted up to 2.52. Thru the 60's the escalation accelerated crescendoing in the 1980's and continuing its trend into the present. Again using an Ivy League school as example, the average GPA at Dartmouth, improved .17 points from 3.06 to 3.23 over 24 years beginning in 1968. To be fair many community colleges, had grade deflation during this time and universities and colleges with more lenient admittance polices experienced a drop of .13 in their average GPA's from 3.11 and 2.98 (Orkodashvili, 2013). This begs the question have the elite schools student selectivity (quality of student) been the Cepheid Variable (an astrological term for a variable star having a regular cycle of brightness…) allowing for the so called grade inflation? Quantitative studies found that a 0.1 relationship between a 100 point increase in SAT and GPA was establish utilizing data from over 2 million students studying at over 150 colleges, universities and other institutions. These examples serve as acceptable proof grade inflation is not strongly correlated to student learning (Orkodashvili, 2013).

What factors have been pro-offered as elements driving grade inflation? Grading systems and inconsistency in grading has been suggested as the principal source for grade inflation. The acceleration of the privatization of higher education is also thought to have generated or accelerated the trend in grade inflation. Retention remains a prime concern for public educational institution but is a critical factor to private-for-profit entities. Students receiving high grades seemed to be more satisfied or are at least less likely to withdraw from school.

Across the globe the surge in the philosophy of consumer-based higher education has been considered as one of the principal origins of grade inflation weakening both grading standards and classroom rigor in higher education. Internationally, many countries are attempting to develop their own educational system. Keeping native students home is a priority not only for the health of public higher education but also the health and development of private universities. High GPAs serve students in numerous ways especially with parents and family members. In a number of these nations, grade inflation has been associated with dishonesty, corruption, fraud and bribery, both in secondary and higher education. Awarding higher grades to students who offer bribes to teaching staff is widespread in many post socialist countries (Orkodashvili, 2013).

Current literature attempting to measure the results and quality of past grading systems consists mostly of teacher/educator surveys and is unreliable in its quality making the results questionable. However, there seems to be an accord on the relationship between grading and teaching. One such area is students' capacity to learn exists sans grades and teachers' aptitude to teach is not amplified by the use of grades or for that matter any type of grading or reporting system. Research does establish regular assessment of learning via verifying what students have learned, what problems they are encountering, and what teaching methods are effective and do serve as an effective analytical permitting timely and critical course modifications to be made. Researchers also appear to agree a vigorous interface between student and teacher is indispensable to a learning environment. They note the addition of a grading characteristic to the relationship establishes a burdensome and negative element to the student teacher relationship. Assessment of learning functions best as a collaborative work, whereas, grading brands the teacher as judge and jury concerning student effort. This paraxial duality in roles may puzzle the student when the two functions assume an irreconcilable environment (Orkodashvili, 2013; Guskey, and Pollio, 2002).

Teachers, instructors, and professors attempting to receive positive evaluations from their students on end of class evaluation have served as an enticement for faculty to inflate grades in hopes of a tit-for-tat or quid pro quo. Some professors distress over giving low grades believing this places students at a disadvantage when applying for graduate school or seeking employment. Researchers have also noted professors have an aversion to addressing students who are distraught by low grades. Avoidance behavior enables teachers to give a better grade basically to circumvent a confrontation. Finally, educators at private for profit institutions may fear administrative retaliation if a student withdraws because of a bad grade, thereby, causing as loss of revenue (Huba, & Freed, 2000).

The Creation and Production of a Grade

Grades are the end resultant of a process. What elements throughout this process affect the eventual grade? Is the classroom designed and equipped for the best learning experience? Recent research suggests many elementary classroom walls and ceiling are so cluttered with sayings, pictures, spelling words and other materials students are distracted. Within the classroom how are student to be assessed? By classroom participation? Some cultures believe it is rude to directly look into the eyes of a person of authority. Some students come from homes where talking invites sever punishment so they are reluctant to speak in class. Should term papers be utilized? This lends itself to major subjectivity as found in the Starch and Elliott research. Are tests to be used? What kind and form of tests? In class tests or take home tests? What about test content and quality? Is the test race, culture and gender neutral? What about the differences in various types of tests? Should they be true and false, multiple choice, or essay? Since nothing is absolute is not the answer to every true and false question false?

With multiple (*guess)* choice tests how close to the correct answer should the alternative answers be? What about time limits? Time limits are intrinsically deceiving as an assessment of student learning. Is the objective of learning to see if a student can remember or explain an item or concept in five minutes or to determine if the student has learned and can explain a concept sans a time limit? Time limits are highly discriminate in favor of fast information processors. Time limits destructively influence slower student processors and the resultant poorer grades serve to demotivate these students. Following this continuum the student becomes disenchanted, frustrated and eventually leaves school. The assessment grading process is completed but rather then encourage and support learning it has the most undesirable conclusion of ending learning (Brame, & Biel, 2015).

Some researchers proclaim the grade inflation problem is not so straightforward. Researchers believe the creation of some university curriculums may be affecting grades inflation but on a justifiable level. Financial aid programs provide motivate and incentive for students to achieve, albeit on a performance level in order to preserve financial aid packages. Faculty development stipends and programs help professors to create more operative and effective syllabi, giving more precise expectations. Encouraging student learning may actually do just that improve learning, thereby, improving grades. An increase in the median age of U.S. college students and a shift to a majority of women students may mean more mature and more motivated students who are more proficient at managing a colligate curriculum and processing college material. Finally, the concentration of studies of grade inflation at elite Ivy League universities may misemphasize the extent and the degree to which grade inflation transpires on a national level. Research including community colleges demonstrates a quite different result of grade inflation. Grades are escalating, yet to some it is inconclusive whether this is the resultant of synthetic inflation, lack of reliable more specific research, or basically grander teaching by educators and more actual learning by better qualified more motivated mature students (Nolan, 2008).

The Three Not So Little Pigs

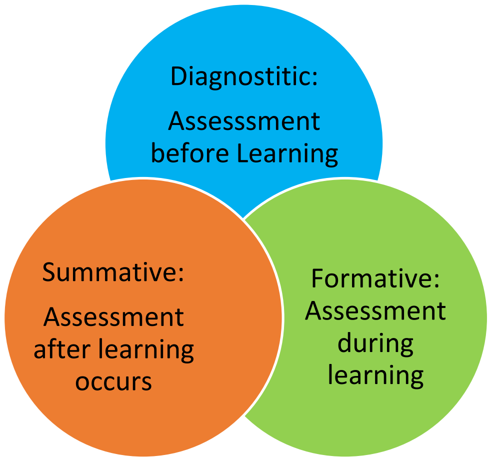
When the first not so little pigs, teachers, college professors and instructors or any educator seeks quid pro quo in grading for good student reviews from the second not so little pigs, students, both lose. More importantly it creates a third pig grade inflations from which *learning* loses. Finally, the big bad wolf blows the house (education's integrity structure) down. To rephrase Hamilton Bacon words thou know the statutes, do not commit zoophilia, do not put lipstick on a *pig*, and do gorge like a pig (Bacon, 2009).

It is imperative grading system processes and grades are assimilated into a coherent learning and teaching strategy so they function for the purpose of providing significant and meaningful feedback to the learner and to a lesser degree the greater social and business audience. Teaching, administrative concerns, student performance goals, faulty grading systems, provide for a wide differentiation in grading all dressed up as pigs and eating as pigs at the assessment trough. Just like when Arianna Huffington coined the term referring to how corporate greed and political corruption were undermining America (Huffington, 2003). It is time these the pigs clouding and undermining of learning are sent to the proverbial slaughter house. It is time to install learning as primary function of educational institutions and relegate teaching and everything else to serving student learning. It is time to measure and assess learning and stop feeding, fattening and weighing the pigs.

A Need for a Holistic Approach to Grading Systems

The term holistic means concerned with the whole, so the understanding of the parts and the sum of the parts is interconnected to the alignment to the whole. In the grading system, the teacher is appraising the complete student and the student's progress and development from assignment to assignment. Utilizing summative, formative or a combination of assessments tools such as some of these included in Table 4. Educators may choose not to assign grades on every assignment. Rather than centering on a performance measure, the teacher focuses on a learning goals by giving constructive feedback designed to grow student learning, progress and development. The final grade is evaluated by the student's progression, development and comprehension from initial assignment to concluding assignment with other components factored in such as class participations, term papers, tests, effort etc. The Thunderbird School of International Management, long recognized as the number one ranked school specializing in international business and now a part of Arizona State University, has a foreign language requirement. If you receive a B in your first language class and a B+ in your second class and finished your advanced 3^{rd} class with an A- all your language class grades were migrated to the A- level. Obviously if you achieved an A- at an advanced level you certainly are now at that level or better in a beginner class. This process served as a great motivator for students. Does not the changing of the lower level class grades accurately reflect the student's current knowledge level?

Table 4.
Assessment: Types



Diagnostic assessments:

- Pre-tests
- I learned statements
- Previous standardize tests results
- Student self-disclosure/self-assessment
- Pre class conference inquiries
- Observation versus benchmarks
- Student Learner Motivation inquiries
- Previous end of year assessment if available
- Portfolio review

Formative assessments strategies:

- Daily assessments
- Assessment of student learning experience
- Strategic Teacher Questioning/ Effective student questioning
- Feedback that feeds forward
- Cooperative learning activities
- Journals
- Peer evaluations
- Class presentation
- Group Activities/Case studies
- Problem Solving Activities
- Self-evaluations

Summative assessment strategies:

- Quizzes/tests
- Portfolio Review
- End of year assessment
- Standardized assessment
- State and/or Nation Standards
- Self-reflections

A New Method of Thinking: Paradoxical Thinking versus Cause and Effect Thinking

Moving from measuring performance goals to attaining learning outcomes requires a new method of thinking. Paradoxical thinking verses cause and effect thinking. As stated previously moving from assessing performance goals to achieving learning outcomes necessitates a novel method of thinking. Two forms of thought are paradoxical thinking and cause and effect thinking. These two forms of thought are necessary in any environment. Through the utilization of both of these forms of thought a manager or leader can more effectively steer the progress of an organization in a direction of success. A student can be enlighten to a new method for solving problems. However, these two forms of thought are very different from each other (Ravi, 2005).

Cause and effect thinking is virtually exclusively taught in various cultures. Considering the difficulties paradoxical thinking necessitates, it is relatively easy to see why cause and effect thinking dominates. Most have been taught to recognize the cultural norm of possibilities for the cause of the problem. One resolves the matter by applying the cultural acceptable effect, but never gets to the root of the problem. Colleagues praise one for finding the expected answer as one mistakenly present her findings as if they were the only or best solution. The very spirit of cause and effect thinking endorses the wanted, expected answer or the professed standard answer. No other suppositions, conclusions, possibilities or options need be offered or if tendered are immediately considered incorrect. According to Weaver (2014) cause and effect thinking necessitates one to draw from or trust preceding historical knowledge or prognosticate the future, with an application to sequential or linear application, upon which to make assumptions. Cause and effect thinking then is basically an if/then process (if this happens than that will occur) engaged to determine what is measured will be the most plausible or paramount alternative. This is a constrictive and discounts and ignores the likelihood of other feasible alternatives.

The decision-making process is not always black and white. While it is conceivable a problem has only one acceptable resolution, there may actually be a number of alternatives. According to Quinn, McGrath, Faerman, and Thompson (2015) in countless circumstances decisions are between competing choices, with more than one being achievable. Paradoxical thinking is counter to the natural thought process. Paradoxical thinking "involves [the] ability to reserve, manipulate, combine, and synthesize opposites" (Ravi, 2005, p. 38). Paradoxical thinking is a complicated skill challenging the way one was taught. It necessitates the thinker to collect, isolate, rethink and manipulate opposites (Ravi, 2005). Paradoxical thinking is not an intrinsic skill. This is why paradoxical thinking is least used skill related to intelligence. When is the last time you thought about the way you think? Review Table 5 and consider the following for a moment, if you change the way you think you change your life.

Table 5.
Paradoxical Thinking

When is the last time you thought about the way or how you think?
Consider for a moment the following, if you change the way you think you can change your life?

Cause and Effect Thinking	**Paradoxical Thinking**
The law of Cause and Effect Thinking For every effect there is a definite cause. Likewise for every cause, there is a definite effect. Your thoughts, behaviors, and actions create specific effects that manifest and create your life as you know it.	The Law of Paradoxical Thinking Your mind is the most powerful force in your universe. You can utilize it to create your life as you want it – so *change the way you think and change your life*.
Focuses on answering the question. Once the question is answered, the user quits thinking. Based off of this concept, there is no need to continue the learning process because the goal has already been achieved.	Recognizes a person becomes what he/she thinks about most of the time – you are where you are and what you are, because of your habitual ways of thinking. Your thoughts are creative, and they ultimately create your reality.
Cause and effect thinking leads to oversimplifying complex problems because it focuses on reaching a goal.	Focuses on understanding the concept.
Once a cause is found or even worse believed to be found investigation and discovery are stymied.	Understands your thoughts are creative, and they ultimately create your reality.
Limits our ability to think outside the box.	Acknowledges if you want to stand out from competitors and friends, you are required to choose to think a different way, a way that gives you a sustainable competitive advantage.
Leads people to resist change the resultant being doing things *this way because it is the way we have always done it*.	Believes mind in action is thought, and thought is creative.
Fails to recognize underlying problems which often plague individuals and organizations.	Knows the world is awarding its richest prizes to the thinker creator problem solver.
Creates simple solutions to problems. These simple solutions merely scratch the surface of problems creating more problems down the line. Hinders accomplishing mastery because it focuses on the problems which are on the surface.	Trusts you can originate thought and since thoughts are creative, you can create for yourself the things you desire. To do this and stand above the rest ***requires the ability to think paradoxically.***

Paradoxical thinking recognizes more than one alternative can be a simultaneously good decision. This type of thinking demands the amalgamation of both control and flexibility, in order to access alternatives from dissimilar perceptions. Every student needs to engage in paradoxical thinking in order to stretch themselves beyond where they are comfortable in order to enhance their critical thinking and solve the complex problems business individuals face in today's constantly ever changing environment. This is one area where cause and effect thinking hinders achieving mastery (Ravi, 2005).

One of the chief criticisms from employers nowadays is students coming into the work force are deficient in critical thinking skills. Perhaps the most substantial behavior students' can learn so they can shine in today's professional setting is to change the way they think. Rather than utilizing the same cause and effect thinking as everyone else which leads to everyone having identical or equivalent answers, a different mode of thinking needs to be employed. Paradoxical thinking permits one to not only solve a modest problem, but sanctions a *learning process* empowering complex problems to be elucidated. Paradoxical thinking gives license to and inspires one to interpolate beyond the parameters of what is directly in front of one to discover all the conceivable explanations or solutions and analyze and address each from numerous diverse perspectives and perceptions. Paradoxical thinking authorizes one to think outside the box and motivates one to change one's life by changing the way one thinks. According to Quinn et al. (2015), "to engage in paradoxical thinking, one must be willing to engage uncertainty and contradiction" (p. 319). Paradoxes are statements or presences contradicting themselves, while mutually being true and existing at the same time (Merriam-Webster, 2012). The unification of the features involved in paradoxical thinking will enable students' productivity to increased, give them a competitive edge, improve motivation at a sustainable at and accelerating pace and launch them into and along the learning process.

By employing paradoxical thinking, students can stimulate innovation by engaging a dissimilar interpretation of the same data or information being scrutinized by others using cause and effect thinking. When various viewpoints, perceptions and models exist with respect to the same raw data, a more comprehensive, varied, and precise insight of reality is shaped. Possessing this skill will further encourage students to engage in classroom discussions and take a stronger role in helping fellow students (Flecher, & Olwyler, 1997). In short paradoxical thinking brings student learning to a whole new level.

Who Will Keep the Ethical Light on for You?

Culture has to share the blame. The June 4, 2010 International Editions of the South China Morning Post carried a story entitled, *Why do Chinese students think it's ok to cheat*? In recent years, cheating has gotten so out of control student cheating is now officially a criminal offence in China. Students found guilty of cheating in the notoriously difficult university entrance exam face up to seven years in prison (Yang, 2018). An estimated 90 per cent of all recommendation letters for Chinese applicants to United States universities are fake. Some 70 per cent of application essays are not written by students, and 50 per cent of grades transcripts are falsified. After cheating on this scale what is a little cheating for a better grade (Nolan, 2008).

With a preponderance of evidence of cheating, the question becomes why do Chinese students cheat? The answer is unpretentious, because they want to and their culture supports it. Many Chinese parents communicate to their children (remember until only recently they were only allowed to have one child per family) from a very early age their sole academic goal, in some cases their only goal in life, is to get into a good school (Yang, 2018). Forget learning the right skills or needing to attaining a career as result of your education.

What has this to do with grade inflation? Once the students arrives on campus, more cheating services are available. In May of 2016 Reuters published a devastating report on cheating by Chinese students in the U.S. The investigation found a flourishing black market offering services to write essays, do the students' homework, and take their exams. A May 29, 2015 International Editions of the *South China Morning Post* article carried a story about 8,000 Chinese students being expelled from American schools in the 2014/2015 school year (Zuo, 2018). To be fair China is not alone in this cultural aspect but the one child policy has perhaps put it at the fore front as parents have had to pin all their hopes on just their one child. It is not a giant leap to believe companies marketing essays, homework services and exam taking to Chinese students also market their services to all students.

Education has become a commodity to be bought by students and sold by the pigs. Industries (pigs at the trough) exist solely to support cheating. Other Chinese organizations originally founded to facilitate the educational process have had an ethical drift. Testing services, organizations like the College Board, which owns and administers the SAT for years has been recycling old material from previous tests to save a little money allowing previous takers of the test to recirculation questions and answers. When these testing establishments knowingly administer compromised tests, they become pigs at the trough and must accept their share of the guilt; the same as the parents who disregard or permit their children to game the system (Yang, 2018). They are all enablers, serving and energizing a worldwide cheating pandemic which contributes to grade inflation. Other students who would not normally cheat are not unaware of the cheating going on in the classroom and believe in order just to keep up must situationally cheat. They justify or rationalize this unethical behavior by thinking I either cheat or risk the potential loss for reimbursements of tuition, scholarships, grants, and/or admission to preferred schools etc.

Ethics can also be christened as a moral philosophy concerned with what behaviors are acceptable and unacceptable or what is right and wrong. Ethics functions to endeavor to comprehend, create, or preserve rudimentary moral principles or acceptable rules of conduct concerning right and wrong. Review Table 6 to better understand what the direct, indirect and hidden costs are to businesses of unethical behavior.

Table 6.
The Costs of Unethical Behavior to Businesses

The Costs of Unethical Behavior to Businesses		
Direct Costs	**Indirect Costs**	**Hidden Costs**
Loss of profit	Loss of profit due to the impact of unethical behaviour on the reputation of the company	Under delivering on promises
Increased employee turnover	Human resources costs due to disciplinary hearings and CCMA action	Turf-guarding, Ggoal-lowering
Human resources costs due to disciplinary hearings	Security and insurance costs	Budget-twisting,
Fines and litigation	Stock losses due to theft and other forms of dishonesty	Fact-hiding
Stock losses due to theft and other forms of dishonesty	Absenteeism due to abuse of sick leave, misuse of internet, personal telephone calls etc	Detail-skipping
Decreased productivity	Costs due to terminations for unethical behaviour, dishonesty, theft and fraud	Credit-hogging
Decreased performance levels of employees	Cost of resignations directly attributable to unethical behaviour and lack of trust	Scapegoating
Increased absenteeism	Training costs for new employees or re-training of existing staff	
Costs due to terminations for unethical behaviour, dishonesty, theft and fraud	Legal costs when dismissed employees are charged with dishonesty, theft and fraud	
Costs due to terminations for unethical behaviour, dishonesty, theft and fraud		
Legal costs when dismissed employees are charged with dishonesty, theft and fraud		
Security and insurance costs		

Why is the Study of Ethics so Important and Why Now?

A friend recently lamented organizations vacillate about allocating funds for ethical training because she believes it is problematic to validate the value and benefits derived from those funds. She feels there needs to be more Enrons, Tycos, Global Crossing, WorldComs… well you get the idea. Companies stocks that went from highs of $90 per share to 2 to 8 cents a share due to corporate leaderships' lack of morals and ethics. She believes this is necessary to justify educational funding for ethics. Why study ethics? Gander a look on a grander scale than cheating in school which for all intensive purpose is a gateway or pathway to moral and ethical ruination.

Appeasement of not properly teaching ethics flourishes in the most devastating manner as unethical behavior transmutes from cheating in an academic arena and migrates to all arenas of life. One goes from cheating in school to cheating on a spouse, to cheating business partners, to cheating the government. These cheaters ignore ethical systems and not only fail to combat corruption but become part of the system perpetuating corruption. One needs to look no further then U.S. politicians at the highest level from the Kennedys, Nixon, Clintons, and others. The failure of these leaders' spirals down to a cultural acceptance similar to China's where the corruption filters downward to quasi government agencies, businesses, charities, and individuals.

Why study ethics and why now? Simply put not studying ethics is paramount to failing to defeat corruption in government and deviate behavior in schools and organizations. Not studying ethics fails to eliminate unethical greedy behavior by corporate executives. Most importantly studying ethics empowers individuals to remove the yoke of group think and peer pressure. Ethics gives one the power and confidence to think for themselves and say no to unethical behavior (Faris, 2011).

What is the price of having the public, business leaders and employees grabbing the low hanging fruit, steal and otherwise defraud the organization? What are the consequences to an organization for failing to thwart unethical behavior? Just ask the employees, suppliers, bankers, stockholders and other stakeholders and communities of companies such as Enron, Adelphia, ImClone, Sunbeam and countless others. To better understand the full depth of this read *Pigs at the Trough* by Ariana Huffington (Huffington, 2003). This is the long term resultant of unearned grade inflation and measuring and rewarding the wrong things in education, business and life. Educational institutions must first acknowledge this problem, accept their responsibility in creating and sustaining the problem and endeavor to implement a solution. Earlier the costs of unethical behavior was presented in Table 6. Table 7 highlights the possible scholastic orientated costs to a student and consequences of unethical behavior or cheating in school.

A recent worldwide undertaking on ethical enhancement has established the preeminent way to increase ethical behavior is to increase the integrity of students, organizations and public service rather than simply designing systems to catch and punish wrongdoers.

Table 7.
Scholastic Orientated Costs and Consequences of Unethical Behavior or Cheating in School

In High School	Applying for College	In College
Possible automatic failure for the assignment	The black mark on your permanent record could cost you your chances of getting into a top college or the college of your choice	Possible automatic failure for the assignment
Expulsion or punished in other ways	Teachers won't provide you with good (or any) recommendation letters	Possible automatic failure of course
Possible automatic failure of course	Scholarship providers could see your permanent record and withdraw offers	Suspended or expelled
Loss of trust and respect from teachers, friends, family, teammates, coaches, etc.		You could lose your scholarship(s)
Lowers your self-respect, self-esteem and confidence		You could company tuition reimbursement
Goes on your permanent record		You could face copyright infringement troubles and be sued for as a consequence of that
Hinders your ability to actually think critically and solve problems		Students who repeatedly plagiarize lose their ability to
Cheating is usually not a one-time thing. Once the threshold of cheating is crossed, youth may find it easier to continue cheating more often, or to be dishonest in other situations in life		When you are hired by future employers based on the idea that you received good grades in a certain subject, you will not be able to solve problems, offer ideas, or maintain the workload in that subject area

Cheating in online education has become so profitable it allows students to graduate without even attending a class. Today, entrepreneurs and freelancers openly advertise services designed to help students cheat in their online educations. These digital cheaters for hire will even assume students' identities and take entire online classes in their place.

** Consider: The long-term negative effects are even more ominous. "Do you want to go to a doctor who cheated his/her way through anatomy class, or drive over a bridge built by an engineer who cheated?"

Disturbing trends currently exist in the United States educational system requiring, deserving and demanding immediate responsiveness. Ethical dilemmas abound in education. Teachers let failing students pass a class, teachers allow failing students to move to a higher grade level or even graduate knowing they are not academically qualified to graduate. Research results show over seventy percent of students in high school and college confess to cheating. Fifty-five percent fail to believe this is a problem and astonishingly consider cheating merely as a method to gain an advantage or just stay competitive with cheaters. Furthermore, roughly eighty percent of all resumes are deceitful, falsified, or outright dishonest containing distortions of material facts. Perhaps just as disturbing numerous surveys have found fifty-four percent of all employees believe their bosses are not ethical and truthful. The cumulative results of this educational dearth in ethics has already taken its toll on millions of stakeholders (Faris, 2011).

Where Do We Go from Here?

Uncertainty intrudes on most aspects of our lives, predominantly when we make choices having consequences which are intrinsically unpredictable. The ethical chore is to eliminate uncertainty by attaining knowledge of the problem. It would seem using professionalism as the core for emergent ethical values and value system is an effective model. Research has demonstrated ethical systems have considerable less effect than the comradeship of fellow professionals. Ethical leaders and not ethical systems, is the most practical and effective method to build and sustain cultures of integrity, truth, reliability and morals (Johnson & Cox, 2005). The leaders need to be developed in the classroom.

Culture forms the platform for the communication of ethical values and serves as the connection between ethical behavior and power. Agendas and policies are regularly shrouded in moral influences which serve to hinder the alternatives produced by paradoxical thinking. The process of educational instruction regarding personal and business ethics commences with introspective thinking. Ethics education demands ongoing reflection, examination, paradoxical thinking and the understanding of whom we are, what we want to be, and how are we going to get there. Much the same as a vision statement. Examining customs, beliefs, ideologies, and values is a method to begin constructing an appropriate ethical foundation (Johnson, 2005).

Ethical citizens saves governments, communities, society, and companies thousands of dollars by having more creative and prolific citizens, members, and employees. Citizens, consumers, shareholders, suppliers, and communities all benefit from dealing with ethical and honest governments, communities, societies, companies and organizations. As exemplified by the previously mentioned companies the consequences of alternative conduct are not pleasant and support disruptive and illegal and criminal behavior which can result in hefty fines, prison terms and loss of consumer confidence (Faris, 2011).

Just How Many Pigs are There?

Cheaters never win. It does not pay to steal. These pseudo axioms, if accepted as true, should result in the question who does win. Not good guys, they do not come in first, in fact most of the time they do not even get the chance to finish the race. To once again borrow from Huffington's book the *Pigs at the Trough* one can visualize the pigs are not only winning but hijacking both lower and higher education. John Warner an American writer, editor, and author of four books and the editor of *McSweeney's Internet Tendency* recounts in a 2018 article entitled *The High Cost of Innovation* an interesting view of a couple of players in the educational field.

The University of Texas in 2012 created the Institute for Transformational Learning with the objective to create products for commercialization. This venture pursuing a foundation for digital learning and online tools in health education online courses prior to being shut down consumed $75 million from the system's Permanent University Fund. Interestingly this costly venture was conceived in just two days by Chancellor Cigarroa, his faculty and staff and was taken to and approved by the regents san a single question. Was the idea of monetary windfalls so corrupting their judgment and duty were so sorely compromised (Warner, 2018)?

Pigs at the trough does not only play out in the public sector but also and perhaps even more so in the private sector. A company known as Wireless Generation, was an early developer of education software on mobile devices. Owned by Rupert Murdoch's News Corporation. NewsCorp was supervised by former New York City schools chancellor Joel Klein. This company desired to transmute education by selling its tablet hardware loaded with its proprietary software (Warner, 2018).

One of Amplify's main goals was to capture the Obama administration's federal Race to the Top educational dollars for digital educational projects. Amplify was created to secure government money with the intent to become the single source for educational materials and assessment for entire educational systems, coincidently starting with New York State's educational system. It did not happen. NewsCorp lost a reported sunk cost investment of one billion dollars in the project (Warner, 2018).

These two illustrations exemplify the unthinkable wastes of time and resources following ill-conceived. What is the motivation for these enterprises? Like pigs at the trough its money, oodles and piles of money. What did they really understand about the complexities of learning prior to leaping into the government money trough snatching ventures? What urgencies or concerns were the ignitors for their invention, development and marketing of their products? At what point was there contemplation, deliberation and reflection of and for students and student learning?

Schools, colleges, universities and their systems are consumers of these software products, generally succumbing to sales representatives while relaying on the presentation of their software's benefits. The competitive need for these buyers to be technologically appropriate and current empowers technology peddlers to gain purchase with their products they want to sell and from which their companies make the most money. The missing ingredient is what learners need or what is in learners' best interest. Unfortunately, it is not until the software is implemented the users find the problems, bugs, hiccups and faults with the product. These software products marketability lies not with the end user of the technology in mind but with the curb appeal to administrators and boards. Although faculty, staff, and other may eventually have input, it is commonly only after the software company makes it past the administration and board. Thus, in reality other decision influencers such as faculty only evaluate the product found acceptable by the real decision makers never seeing or accessing the broader variety of products in the marketplace. Student requirements and necessities are at the sunset of the purchasing procedure subordinate to the development and advancement of merchandise marketed to administrators and board members. Need it really be said software businesses need to consider the learner and the progression at which students learn. Technology organizations are tracking toward the learning process, but unfortunately, the market is rewarding the previously mentioned market appeal products. Enterprises focusing on learning are failing to gain traction and access to the billions of dollars of government funding.

Administrators and academics need to grasp the extravagant assurances and promises of many products are unfounded. They need to understand the marketing whoopla of personalized learning, problem based learning, client based learning, MOOCs and other innumerable accompanying mini innovations proclaiming and assuring an immediate and histrionic uprising in education are at best exaggerated. So what should one have learned? Hopefully, all have learned to do their due diligence to see past the marketing propaganda, the mega profit gleam of the providers and suppliers, and most of all that the pigs at the trough just trying to make millions of quick bucks. Hopefully we all have our eyes on the prize of addressing student needs and learning goals. To accomplish this everyone needs take on a far more arduous, critical, sensible, analytical and fact-finding role during the decision-making process. Substandard products must be censured, pursuit of profit needs to be transformed into a less wasteful and inefficient marketing oriented methodology secondary to pursuing innovative educational products focused on the learning process. We must not have an educational system focused on supply side company profits, administrators should not secure technology for technologies sake or products and technology for the main purpose of improving teacher lives. The main thing regarding technology is to focus on technology that supports student learning as the main thing.

Stakeholders- Weighing the Pig is a Delicate Task

When pigs are small weighing them is easy. Just pick them up get on the scale and subtract your weight. As they grow lies the test. Weighing a pig with a string compels the pigs trust in your approaching the pig for the measurement. Measure the length and circumference and calculate: Weight (pounds) = (L x C x C) ÷ 400 (inches) where L = Length and C = Heart Circumference. Pigs have been known to be aggressive and stomp on feet and literally mash people. It is important to note pigs are inclined to bite outsiders, therefore, beware, be careful and proceed preferable with your own pigs. How many of us weigh the pigs (stakeholders) feeding at our trough? Do we take the time to ensure the pigs do not bite us? Are we allocating the resources necessary to ensure when we buy products that are supposed to enrich learning we are not buying a pig in a poke? Winston Churchill reportedly said something along these lines, I am fond of pigs. Dogs look up to us. Cats look down on us. Pigs treat us as equals. Do capitalistic pigs treat us as equals? Perhaps when pigs fly. Maybe one should remember a saying attributed to George Bernard Shaw. Never wrestle with pigs. You both get dirty and the pig likes it. We must get better at weighing the pigs!

Stakeholders include all those organizations, networks and private people having an interest that may be affected by the organization. Examine Table 8 for a list of some of the many possible stakeholders of universities. The internal stakeholders of higher education institutions include all institutional personnel and students, while the external stakeholders include alumni, partners, suppliers and customers (Alves, Mainardes, & Raposo, 2010). All educational institutions have an intrinsic obligation to interact with the needs of their stakeholders. The importance of external stakeholders' surges when the public funding of higher education institutions diminishes and they reach out to replace the lost funding. This includes private colleges and universities as the institutions and their internal stakeholders apply for federal grants and other federal money to sustain programs and research. The organizations also look for external funding from various domestic and international funding sources and thus work with partnerships and collaborate with more and more external stakeholders. They obviously become accountable to an ever increasing number of stakeholders (Benneworth, & Jongbloed, 2010 and Bryson, 2004).

Most stakeholders have a robust financial inducement driving their interest in the educational system. Colleges and universities create massive tax revenues for the communities where they are located. Revenues are produced from taxes on employee's spending on real estate, buildings, land, and equipment. The accompanying ancillary economic remunerations are colossal for communities as thousands of students' consume millions of dollars of products and services in the local stores, restaurants, gas stations and other businesses. Relatively high university salaries maintain and augment real estate values moving taxes higher. Employee's youngsters go to local schools adding millions of dollars in state and federal funding providing jobs for more teachers and staff adding even more dollars to local economy. More and more sustenance establishments such as churches, social services, medical doctors, dentists, hospitals, etc. are required. All of these enterprises pay taxes, and have employees who have families adding to an ever increasing circle of producing tax revenue and needs adding to the growing thriving community. It is the reality of the computer game *Sim City*.

Table 8.
University Stakeholders

Gov'tal Entities	• Governments--Federal, State, Local, Veteran Agencies, Quasi government agencies
Gov't Reg-ulators	• Department of education, support entities, state financing agencies, research boards, research support bodies, fiscal authorities, social security, patent offices
Non Gov't Reg-ulators	• Accreditation bodies, professional associations, religious sponsors, foundations
Manage-ment	• Chancellor/presidents, vice-rectors/vice-presidents, provosts etc. • Directors
Employees	• Teaching faculty, Administrative and support personnel
Clients	• Students, parents, social financing entities, service partners, employers, employment agencies
Donors	• Corporate, foundations, directors, friends, parents, alumni, employees, industry, research boards
Suppliers	• Technology companies, publishers, marketing agencies, benefit administrators and services providers corporate law firms, cyber security serevices, staffing services, food providers, insurance companies, service suppliers, utilities, PR firms, testing services etc...
Alliances	• Alliances and consortia, co-financiers of research and teaching services.
Financial	• Banks; fund managers, analysts
Commu-nities	• Resesarch, publishers, conferences, neighboring, school systems, social services, chambers of commerce, special interest group, resesarch, publishers, conferences
Compeition	• Direct: public and private higher education institutions

Many relationships with stakeholders are mild. However, when you get into the other external stakeholders such as testing companies, training organization, research institutes, curriculum and program creators or enhancers who stand to make millions off their products or administrators who might be attempting to build a legacy or feed their ego, extra caution needs to be taken to weed out the pigs at the trough. Remember even if you put lipstick on a pig it is still a pig.

The actions exhibited by Amplify and the University of Texas's Institute for Transformational Learning serve as examples, as well as, numerous federal attempts to force educational requirements onto schools, of people and organizations fatting or attempting to fatten themselves at the expense of the educational system and student learning. It is time to ensure we are not committing zoophilia and avoid any appearance of educational vivisection. In order to begin to fathom the size of the zoo review the list of the numerous industries to which the pigs at the trough belong at the end of this chapter.

Raising Motivational Levels to Augment Learning, Higher Ethical and Moral Values

No learning can take place without motivation. If one does not know what motivates a student how can an instructor really improve a student's learning environment? In this regard researchers have identified two types of mindsets of students; performance based learners and learning goal learners. Mindset involves two different views of intelligence. Entity theory where one believes intelligence is just an entity. It exists within a finite supply which cannot be increased. This mindset leads students to be performance goal oriented where earning an *A* is the end goal. Performance goals have practical utility such as, getting tuition reimbursement from a company, maintaining scholarship eligibility, role modeling for grandchildren, children, other family members, coworkers, and self-satisfaction (Dweck, Henderson and Henderson, 1989).

The second off shoot of mindset intelligence is incremental theory. Increment theory of intelligence believers understand intelligence may vary marginally from one individual to another individual but it is ultimately something with exertion and effort one can increase. Students subscribing to this theory (although they may not be cognizant of practicing either theory) are learning goal oriented. They strive to be able to understand and apply concepts, theories, and lessons learned in class to life for life. They assess information as useful for the rest of their lives not data just to get through this week's test and subsequently be discarded and forgotten. Both goals are completely acceptable and can assist as a driver for achievement, but only one is a path to a mastery of learning (Dweck, Henderson, and Henderson, 1989). Educators need to know which students subscribe to which theory. The two theories necessitate very contradictory assessments of effort. Study Table 9 for a better understanding of the relationship between incremental and entity theory.

Table 9.
Incremental Theory versus Entity theory

Incremental Theorists believe intelligence is can be augmented by sheer effort.
Incremental Theorists see culpability in of lack of effort and/or strategy for success. It is possible they will act out to progress and improve the situations seeing more effort as helping bring about a successful conclusion.

According to the Entity Theory, intelligence is a personal quality that is permanent and cannot be altered.
Entity Theorists accept that even if individuals can absorb new things their intelligence remains the unchanged and they will seek to blame their intellect and aptitudes for failures.

To incrementalists exertion (effort) is positive. Working harder is deemed as a learning aid and as a way to get better. No pain no gain. They are in sync with Malcom Gladwell's work in *Outliers* that it takes 10,000 hours to become proficient. Meanwhile, entity theorists believe in a scheme necessitating a system of easy successes, working hard (expending effort) translates into meaning you are doing something erroneous. A teacher could believe what is learned in the effort is a gradable factor even if that effort results in initial failure as long as the student failed forward. Many business people freely admit to learning more from failing then from their successes.

These dualistic theories produce contrasting reactions to adversity, helplessness and mastery. Impediments and stumbling blocks are unavoidable in the learning process and can serve as guide posts. Entity believing students are inclined to respond to adversity by impugning others for tardy assignments or deficient work. They question and quarrel over grades more regularly, and plead for reprieve with an emotional appeal. They feel deserted, abandon and helpless because they believe they cannot expand their thinking capacity and therefore their efforts are best spent pleading and trying to bargain the unfairness with their teacher. When incrementalists sustain a setback they seek to fail forward and learn from the experience. Rather than grumble, complain, and seek salvation from their teacher while assessing blame to something or someone else they desire to work with their teacher to find out where their thinking was tainted, what did they misconstrue, and how can they progress and improve their thinking process and incorporate what they learned from their mistake to improve their work for the next time (Bloom, Madaus, and Hastings, 1981). For example, one recent student Maya inquired about the less than desirable grade she had received on her first paper. Having had Maya in a prior class enabled the instructor to utilize the grade as a learning moment. Maya was told, this is a *B* or better paper for anyone else but a *C* paper for you. The grade reflected her learning ability and achievement not what her fellow classmates learned or their abilities. The rest of the class and throughout the next class Maya never failed to live up to her potential. At graduation when introducing her instructor to her parents Maya stated this is the teacher who made me see what learning goals accomplish and delivered the motivational message I needed to be my reach my potential and compete with my potential and not my classmates.

There has been extensive examination regarding the comparative prominence and benefits of internal versus external motivation of students as revealed in Table 10 (Girmus, 2011). Motivation is unquestionably the most momentous influencer educators can utilize to improve learning. Motivation is the single most critical element affecting learning. A learning experience does not transpire sans a preceding motivational episode (Olson, 1997). The five strategic components prompting student motivation consist of: student, educator, content, process, and educational setting. Motivation is defined as the act or process of inspiring; the condition of being encouraging; a stirring force, stimulus, or influence; incentive; drive; something (such as a need or desire) causing a person or student to act (Merriam-Webster, 1997); and the exertion or application of effort to achieve results (Eymur, 2011; Williams, & Williams, 2011).

Motivation

Extrinsic	Intrinsic	Benefits of Intrinsic Motivation
*Originates from outside forces *Seeks to secure or improve position or status *Done for recognition *Desires recognition from superiers, friends, family *Values rewards for complerteing the task or work *Outside forces control life **Types of Moitivors** Golds stars Atta Boys Money Badges Fear of punishment Points	* Originates within a person * Maintains a sense of resposibility *Has a innate need to advnce something for its own sake *Connects the task with self esteem *Tries to acheieve grownth and enjoys the work **Types of Moitivors** Autonomy Belonging Mastrey Learning Curiosity Meaning	*Persistence *Creativity *Conceptual and Understandin *Optimal functioning and well being **Results of Extrinsic Motivation** *Hidden Costs of undermining others *Becomes a demotivator over time *Introjects regualtion and manipulation *Behavior requires constant monitoring and magement *Rewards narrow focus and ecourge deviant behavior

Both psychological and neuroscientific findings validate motivation and cognition are intricately interconnected. There exist lower brain centers and higher brain center capacities unitized for motivation (Pink, 2009). The evolution of motivational theory starts with the motivation of just trying to survive much in line with Maslow's Hierarchy of Needs theory. From the survival stage theories progressed to the seek reward avoid punishment stage which included Taylors Scientific theory model. Douglas McGregor in his theory X and Y challenged the presupposition humans are essentially inactive lacking external rewards and punishments (Pink, 2009). As the saying goes the applications of all these theories worked in their time until they did not. These theories eventual failure set the stage for the now prevalent context for understanding motivation. Motivation consists of two components, intrinsic and extrinsic. Extrinsic motivation represents the drive to do an activity to achieve external rewards, such as money or social status. However, extrinsic rewards deliver short term boosts but the effects soon wane and can have a negative effect on long term motivation. Furthermore, extrinsic motivation implies control (if you do this than I will reward you. Does this kind of thinking sound familiar?) which leads to compliance and follows the path to forcing one into achieving someone else's goal to get the associated extrinsic reward. The result long term is the rewards become ineffective and need to continually be increased and extrinsic motivation's inherent control factor serves as a de-motivator. This delivers students into the real world fully prepared to be an order taking, policy following drone employees not a creative, innovative entrepreneurial employee (Pink, 2009).

Intrinsic motivation embodies the inner longing or craving one has to achieve or attain mastery or excel in a specific quest. Motivations aim should not be to exert dominance over someone to attain the dominators goals via a defined method of compliance with policies and procedures. Motivation should seek personal engagement and comprehension while in pursuit of achieving mastery (Pink, 2009).

Interest and motivation are highly related. Some things enable human interest some debilitate it (Pink, 2009). Those with a robust interest in a particular area are intrinsically motivated to flourish in that area. Interest is produced by varying environmental surroundings or learning settings which focus thoughts and attention. Interest and enthusiasm for any one particular project and general individual interest interact by stimulating and augmenting each another. Educators can use interest for any one particular project to further develop over all interest and intrinsic motivation in learning (Girmus, 2011).

Learning truly transpires when students are motivated on a reliable and consistent basis. Access, ability, interest, and value must be present. Educators must do their part by being skilled while concentrating on the educational and learning processes, approachable with timely responses to students in and out of class, and be stimulating and inspirational. Content needs to be precise, appropriate, thought-provoking, and relevant to student's existing and impending needs. The delivery mode should be creative, inspiring, stimulating, useful, and deliver applicability to a student's real life. The prerequisites for the learning environment are to be empowering, accessible, safe, positive, and personalized for individual students (Palmer, 2007; Debnath, 2005; D'Souza, & Maheshwari, 2010).

How can one recognize when students are motivated? Students will be lively, energetic, asking questions, volunteering answers, and being engaged as evidence by their paying attention and doing scholastic tasks (Palmer, 2007). Appealing to student's individual interest to enrich motivation is ideal but problematic. Jere Brophy (1987), a leading researcher on student motivation and effective teaching believes, a student's motivation to learn is inspired by communication of expectations and direct instruction or by and through others especially parents or teachers.

The expectancy-value theory functions as the fundamental theme to a few strategies to heighten student engagement and motivation. This theory states the effort (motivation) a student is willing to undertake to accomplish an educational assignment is mutually determined by his/her expectancy for accomplishment and by the value he/she ascribes to an assignment. This theory proposes students can be successful if they apply a judicious effort while having a clear appreciation for the value of the learning assignments (Malouff, Rooke, Schutte, Foster, & Bhullar, 2008; Vroom, 1970).

Teacher motivation is a key element in student motivation. Unmotivated teachers can undermine student motivation. The key is to strike a balance so every student feels he/she, with reasonable effort, has the capability to succeed while still being challenged to stretch his/her limits. Motivating teachers demonstrate or model for students: techniques, subject material, positive learning behavior, and interpersonal relationships. Learners who are motivated intrinsically tend to cultivate a high regard for learning course information without the use of external rewards or reinforcement. On the other hand, individuals who are motivated extrinsically rely solely on rewards and desirable results, e.g., tests and GPA (Lei, 2010). Students who are motivated externally demonstrate a lower learning ability and therefore are at a higher academically risk than intrinsically motivated students. It is interesting to note nontraditional students report higher levels of intrinsic motivation than traditional students (Afzal, et al., 2010; Bye, Pushkar, & Conway, 2007; Daniels, 2010; Dean, & Dagostino, 2007).

Student motivation is enhanced when intrinsic and extrinsic motivations are mutually integrated in the learning process. Table 11 serves as a good comparison of the two. Effective use of extrinsic rewards can develop intrinsic motivation to learn. Intrinsic motivational factors for most students include involvement, curiosity, challenge, and social interaction. Extrinsic rewards are useful when students' initial interest in low. Extrinsic rewards must be tangible and time-sensitive while placing value on specific learning goals. The effective use of verbal praise is a powerful extrinsic motivator. Other extrinsic motivational factors include compliance (to meet another's expectation, to do what one is told); recognition (to be publicly acknowledged); competition; and work avoidance (avoid more work than necessary) (Theobald, 2006).

Table 11.
Utilizing Intrinsic and Extrinsic Motivation for Teaching

Intrinsic	Extrinsic
• Make knowledge attainment connections to all arears of life-academic, personal, professional	• Allow opportunities for students to observe or have other students' work examples
• Provide self-regulated activities	• Provide clear expectations
• Allow students some opportunities to select learning goals and tasks to challenge themselves	• Have explicate compliance requirements, instructions and goals
• Give students time for reflection	• Have and make explicitly clear deadlines to help prevent work avoidance
• Create, foster and maintain curiosity	• Have reward and punishments via extra points or point deductions
• Provide a variety of activities to maximize student involvement	• Provide specific feedback
• Ensure social relevance in course	• Provide a rubric which includes a form of competition
• Utilize gamification	• Give verbal recognition and praise

Evolving motivation is a resultant from linking school work as a foundation of self-expression, exploration, and recurrent creativity (Jaeger, & Adair, 2014; Mamaril, Usher, Economy, & Kennedy, 2013). Students ascertain their personal rewards by conquering fresh challenges and delivering distinctive contributions with an important and significant perspective. To nurture evolving motivation, educators must plan varieties into a learning structure. To the degree design can allow for flexibility students should have some input into the design, so they become invested in the educational process and system by taking ownership as they are essentially accountable for learning the material (Lengnick-Hall, & Sanders, 1997).

What is the best way to motivate students? While it is improbable one single means or theory or event will histrionically modify a student's motivation to learn, or will positively influence all students. One certainly must acknowledge student motivation is a vibrant dynamic. No solitary theory seems to be comprehensive enough to answer all motivational questions. Possibly the structure to enhance student motivation is to embrace all of these theories concurrently while recognizing through one's own behavior, course design and teaching, one can construct classroom learning environments heightening engagement and motivation to learn. Additionally, relying on and applying an assortment of strategies befitting one's own teaching style one can meaningfully ignite and sustain students' motivation to learn.

Education and Learning are Not a Zero Sum Game

Zero-sum is a circumstance in game theory in which one person's gain is a corresponding loss to another, so the net change in advantage or benefit is zero. No matter how much effort, personal expense and dedication a teacher puts into the cause, there is a veiled barricade to significant, comprehensive enhancement in education; that of zero-sum thinking. Zero-sum thinkers see the educational achievement of one student necessitating the failure of another student or the innovation of one system being the death or to the detriment of for another. This type of thinking channels education into an uncomfortable framework. Students have a diversity of abilities and an educational system which fails to acknowledge this diversity is one in which excellence will struggle to exist. It is implausible anything can be accomplished until the idea of educational innovation is no longer thought of in terms of winners and losers or a zero sum game (Simpson, 2018).

Any effective fruitful innovation in education seems to enrage those who were not involved. Instead of rejoicing administrators or superiors are summoned to ride to the rescue to demand a return the old ways of doing things. For example, an innovative school in Japan migrated students from rote learning. The adjoining schools, rather than take the opportunity to access the innovative idea knew parents commonly favored familiarity despite a deteriorating system. They feed off these beliefs to encourage parents to divert students and their accompanying money to their schools.

It is not difficult to determine where the caustic zero-sum mindset originates. Education has become a political hot potato on the national and international platform. It has taken on the language and ethos of confrontational politics. Your opponents' losses are your gains;

their fiascoes are your achievements. Education is not a zero-sum game and the zero sum mentality of politics needs to be eliminated from education. Until we eradicate the zero-sum mentality, it will be highly improbable to apply the kind's massive restructuring and transformations education systems so urgently require. The beginning towards developing achievement is to construct an abundance of cooperation amongst all stakeholders keeping in mind my learning does not keep you from learning and your learning improves my learning and understanding.

Summation

International comparisons demonstrate the current state of learning in the United States is severely lacking. Just following instructions from educators' ad nauseam and teaching cause and effect thinking is failing. It is a cookie cutter for delivering followers. We need leaders capable of making good decisions based on critical thinking skills with judgements made through a paradoxical thinking process. It is too constrictive to trust test scores and consequently grades as the solitary gauge of student success. Students must have auxiliary mindsets, habits, skills and proper motivation to be prosperous in the real world; skills that are meaningful, flexible, measurable and demonstrable.

Myths rule the world. A penny saved is still a penny earned. A fool and his money are soon parted. Nobody wants to eat at a restaurant with a skinny chef. Some myths are useful. Many are unhelpful sort of myths: *fake news* and lies. Academicians need look at the academic myths to reevaluate legacy practices such as grading, mode of delivery, teaching practices, stakeholders' interest, motives and ethics and yes even technology. Are these good helpful myths or fake news and lies? Do the legacy myths promote student learning or do they need to be discarded.

Academicians need to learn how to acquire teacher motivation, promote and sustain student motivation and understand how innovation can coexist in the learning process. What was done yesterday was not sufficient then, let alone suitable for tomorrow. Educational innovation does not just mean new technology. Educational innovation can originate in curriculum, mode of delivery, procedures, services, programs, student networking, creating student learner motivation and partnerships.

It is time to stop debating technology and start evaluating its performance**.** Analysts are quarreling whether technology is worthy or unworthy, whether personalized learning is synonymous with robot instructors, whether technology performs as advertised or is an expensive boondoggle. The key is does the technology deliver improved and sustainable student learning, not whether or not someone's ego is preserved.

Education has become a commodity to be bought by students and sold by the pigs. It is time for every stakeholder to be on the same team and recognize education is not a zero-game. It needs a solid cultural and ethnical base and to be taken back from the commodity brokers. Moving forward means politics must be eliminated from education. It is time to minimize governmental and political negative effects on the educational systems.

Scholastic performance continues to be measured by archaic grading systems. Systems ranging from percentage grading to structures encompassing fewer but larger classifications, such as, five-point scales of A, B, C, D, F, bell-shaped curves, and pass/fail systems to grades developed as marketing tool to attract and retain students. All of these generate food for demotivating students and add to ethical erosion and grade inflation. We continue to measure the wrong things while we listen with the intent to reply, to control, to manipulate. Yet research demonstrates students' capacity to learn exists without grades. Since what gets measured gets done or improves we need to stop measuring the wrong things and start measuring learning. It is imperative grading systems processes and grades are assimilated into a coherent learning and teaching strategy so they function for the purpose of providing significant and meaningful feedback to the learner. It is time to install learning as primary function of educational institutions and relegate teaching and everything else to serving student learning. Rather than centering on a performance measures, the teacher should focus on learning goals by giving constructive feedback designed to grow student learning, progress, and development. This needs to be accomplished while containing a robust motivational element which is unquestionably the single most critical element affecting learning educators can utilize to improve learning.

A student's final grade should be evaluated by what is learned in the effort even if that effort results in initial failure as long as the student fails forward, by the student's progression, development and comprehension from initial assignment to concluding assignment with other components factored in such as class participations, term papers, tests, effort etc. Furthermore, a student's grade should have no component relating to other students learning.

All the while we must understand moving from measuring performance goals to attaining learning outcomes requires a new method of thinking. Paradoxical thinking permits one to not only solve a modest problem, but sanctions a learning process empowering complex problems to be elucidated. Paradoxical thinking gives license to and inspires one to interpolate beyond the parameters of what is directly in front of them to one of discovering all the conceivable explanations or solutions, analyzing and addressing each from numerous diverse perspectives and perceptions. The unification of the features involved in paradoxical thinking will enable students' productivity to increased, give them a competitive edge, and improve motivation at a sustainable and accelerating pace. Possessing this skill encourages students to engage in classroom discussions and take a stronger role in helping fellow students. Finally, the main thing (student learning) is to keep the main thing (student learning) the main thing (student learning). The consequence of inaction is more of the same. Do we really want more last place finishes in worldwide testing and company pigs growing fatter at student expense? Do we?

The *Pigs* throughout this chapter have been grilled, broiled, sautéed, barbecued, smoked and roasted which leads us to two last paradoxes to ponder. Consider this, most in academia are chickens as related to breakfast, interested because they provide the eggs but in this scenario need to be pigs who in providing the ham demonstrate total commitment. All educational adherents should start sweating like a pigs with their concentrated efforts serving but one purpose; keeping the main thing the main thing, improving student learning.

The Various Barns the Pigs Emanate from:

There are too many pigs at the trough to name them all but the editors and advisors of *EdTech Digest* are developing a compendium of companies serving the education sector to highlight just the leading innovative technology solution provider's intent on transforming education. When evaluating an organization technology product the bottom line needs to be does this product improve student learning?

The actual list of other companies feeding on the educational system must start with a search of a service category (See below). As exemplified by the editors of *EdTech Digest* then you can begin listing the 1,000 or 1,000s of companies and the spawn.

All Service Categories

Business Services

Business Filing and Licensing Providers
Business Finance Providers
Accounting Firms
Bookkeeping Services Providers
Financial Consulting Providers
Other Business Finance Providers
Tax Services Providers
HR Services Providers
Benefits Administration Services Providers
Health & Safety Providers
HR Consulting Providers
Other HR Services Providers
Payroll Services Providers
Training & Development Companies
Legal Services Providers
Corporate Law Firms
Intellectual Property (IP) Law Firms
Other Legal Services Providers
Management Consulting Providers
Sales Consulting Providers

Cybersecurity Services
Application Security Services Providers
Cybersecurity Consulting Providers
Data Security Services Providers
Email Security Services Providers
Endpoint Security Services Providers
Incident Response Services Providers
IT Compliance Services Providers
Managed Security Services Providers
Network Security Services Providers
Other Security Services Providers
Threat Intelligence Services Providers
Vulnerability Assessment Services Providers
Marketing Services
Branding Agencies

Translation Services

Closed Captioning Services
Interpretation Services
Localization Services Providers
App Localization Providers
eLearning Localization Providers
Game Localization Services
Marketing Localization Providers
Multimedia Localization Providers
Software Localization Services
Website Localization Services

Staffing Services
Job Boards
Other Staffing Services Software
Recruitment Agencies
Staffing Agencies Providers

Value-Added Resellers (VARs)
Acumatica Channel Partners
Adobe Channel Partners
Amazon Web Services Channel Partners
Autodesk Channel Partners
Cisco Channel Partners
Cisco Cloud Resellers
Cisco Data Center Resellers
Cisco Hardware Resellers
Cisco Hardware Resellers
Cisco Unified Communications Re.
Other Cisco Resellers
Deltek Channel Partners
Epicor Channel Partners
Infor Channel Partners
Infor CRM Resellers
Infor EAM Resellers
Infor ERP Resellers
Infor Distribution FACTS Resellers

Inbound Marketing Services
Content Marketing Agencies
Search Engine Marketing (SEM) Agencies
PPC Services Providers
SEO Services Providers
Social Media Marketing (SMM) Companies
Marketing Automation Consulting Providers
Marketing Strategy Agencies
Other Marketing Services Providers
Outbound Marketing Services
Advertising Agencies
Digital Marketing Services
Experiential Advertising Agencies
Traditional Advertising Agencies
Email Marketing Services Providers
Mobile Marketing Companies
PR Firms
Other Services
Coworking Spaces
IT Outsourcing Services
Other B2B Services Providers
Rewards and Incentives Services
Technology Research Services
Professional Services
Creative Services Providers
Content Writing Services Providers

Graphic Design Services Providers
Other Creative Services Providers
User Experience (UX) Design Services Providers
Video Production Companies
Website Design Companies
Development Services Providers
Mobile App Development Companies
Android Developers
Cross-Platform Developers
Internet of Things (IoT) Developers
iOS Developers
Wearable App Development Companies

Infor Distribution SX.e Resellers
Infor LN Resellers
Infor M3 Resellers
Infor SyteLine Resellers
Infor SunSystems Resellers
Infor Xi Resellers
Other Infor Resellers
Microsoft Channel Partners
Microsoft Azure Resellers
Microsoft Dynamics 365 Resellers
Microsoft Dynamics CRM Resellers
Microsoft Dynamics ERP Resellers
Microsoft Dynamics AX Resellers
Microsoft Dynamics GP Resellers
Microsoft Dynamics NAV Resellers
Microsoft Dynamics SL Resellers
Microsoft Office 365 Resellers
Other Microsoft Resellers
SharePoint Resellers
Oracle Channel Partners
NetSuite Resellers
Oracle Cloud Application Resellers
Oracle Database Resellers
Oracle ERP Resellers
Oracle E-Business Suite Resellers
Oracle JD Edwards EnterpriseOne Resellers
Oracle PeopleSoft Resellers
Oracle Fusion Applications Resellers
Oracle Hyperion Resellers
Oracle Primavera Resellers
Oracle Siebel Resellers
Other Oracle Resellers
Other VARs
Qlik Channel Partners
Sage Channel Partners
Other Sage Resellers
Sage 100 Resellers
Sage 300 Resellers

Windows Developers

Other Development Services Providers
Testing and QA Providers
Web Developers
Drupal Development Companies
E-Commerce Development Companies
Java Development Providers
.NET Developers
PHP Developers
Python and Django Developers
Ruby on Rails Developers
Sitecore Developers
WordPress Developers
Implementation Services Providers
Amazon Web Services Consulting Providers
Amazon Aurora Consulting Providers
Amazon CloudFront Consulting Providers
Amazon DynamoDB Consulting Providers
Amazon EC2 Consulting Providers
Amazon EMR Consulting Providers
Amazon Kinesis Consulting Providers
Amazon RDS Consulting Providers
Amazon Redshift Consulting Providers
Amazon S3 Consulting Providers
AWS Lambda Consulting Providers
AWS WAF Consulting Providers
Other AWS Consulting Providers
HubSpot Consulting Providers
Infor Consulting Providers
Infor CloudSuite Consulting Providers
Infor CRM Consulting Providers
Infor EAM Consulting Providers
Infor ERP Consulting Providers
Infor Lawson Consulting Providers
Infor LN Consulting Providers
Infor M3 Consulting Providers
Infor SyteLine Consulting Providers
Infor SunSystems Consulting Providers
Sage 500 Resellers
Sage 50 Resellers
Sage BusinessVision Resellers
Sage BusinessWorks Resellers
Sage CRM Resellers
Sage Fixed Assets Resellers
Sage HRMS Resellers
Sage Intacct Channel Partners
Sage X3 Resellers
Salesforce Channel Partners
SAP Channel Partners
Other SAP Resellers
SAP BusinessObjects Resellers
SAP Cloud Resellers
SAP ERP Resellers
Business ByDesign Resellers
SAP Business All-in-One Resellers
SAP Business One Resellers
SAP HANA Resellers
SAP Hybris Resellers
SAP SuccessFactors Resellers

Infor Xi Consulting Providers
Other Infor Consulting Providers
Microsoft Consulting Providers
Microsoft Azure Consulting Providers
Microsoft Dynamics 365 Consulting Providers
Microsoft Dynamics CRM Consulting Providers
Microsoft Dynamics ERP Consulting Providers
Microsoft Dynamics AX Consulting Providers
Microsoft Dynamics GP Consulting Providers
Microsoft Dynamics NAV Consulting Providers
Microsoft Dynamics SL Consulting Providers
Microsoft Office 365 Consulting Providers
Other Microsoft Consulting Providers
SharePoint Consulting Providers
Oracle Consulting Providers
Oracle Cloud Applications Consulting Providers
Oracle CX - Customer Experience Cloud Consulting Providers
Oracle EPM - Enterprise Performance Management Cloud Consulting Providers
Oracle HCM - Human Capital Management Cloud Consulting Providers
Oracle SCM - Supply Chain Management Cloud Consulting Providers
Oracle Database Consulting Providers
Oracle ERP Consulting Providers
Oracle E-Business Suite Consulting Providers
Oracle ERP Cloud Consulting Providers
Oracle JD Edwards EnterpriseOne Consulting Providers
Oracle PeopleSoft Consulting Providers
Oracle Fusion Applications Consulting Providers
Oracle Hyperion Consulting Providers
Oracle Industry Solutions Consulting Providers
Oracle Primavera Consulting Providers
Oracle Siebel Consulting Providers
Oracle Taleo Consulting Providers
Other Oracle Consulting Providers
Other Implementation Services Providers
Pegasystems Consulting Providers
Salesforce Consulting Providers
FinancialForce Consulting Providers
Other Salesforce Consulting Providers
Sales Cloud Consulting Providers

Salesforce CPQ Consulting Providers
Salesforce CRM Consulting Providers
Salesforce Analytics Cloud Consulting Providers
Salesforce App Cloud Consulting Providers
Salesforce Commerce Cloud Consulting Providers
Salesforce Community Cloud Consulting Providers
Salesforce Marketing Cloud Consulting Providers
Salesforce Pardot Consulting Providers
Service Cloud Consulting Providers
SAP Consulting Providers
Other SAP Consulting Providers
SAP BI Consulting Providers
SAP CRM Consulting Providers
SAP EPM Consulting Providers
SAP ERP Consulting Providers
Business ByDesign Consulting Providers
SAP Business All-in-One Consulting Providers
SAP Business One Consulting Providers
SAP FICO - Financial Accounting Consulting Providers
SAP HR - Human Resources Consulting Providers
SAP HANA Consulting Providers
SAP Industry Solutions Consulting Providers
SAP Mobile Platform Consulting Providers
SAP PLM Consulting Providers
SAP SCM Consulting Providers
SAP SRM Consulting Providers
Workday Consulting Providers
Other Workday Consulting Providers
Workday Financial Management Consulting Providers
Workday Human Capital Management Consulting Providers
Workday Planning Consulting Providers
Workday Professional Services Automation Consulting Providers
Workday Student Consulting Providers
Solution Consulting Providers
Business Intelligence (BI) Consulting Providers
Cloud Consulting Providers
Digital Transformation Consulting Providers
IT Infrastructure Consulting Providers
IT Strategy Consulting Providers

Mobility Consulting Providers
Other Solution Consulting Providers
Quote-to-Cash Consulting Providers
Staffing Services
Job Boards
On-Demand Staffing Providers
Other Staffing Services Software
Recruitment Agencies
Staffing Agencies Providers
Translation Services
Closed Captioning Services
Interpretation Services
Localization Services Providers
App Localization Providers
eLearning Localization Providers
Game Localization Services
Marketing Localization Providers
Multimedia Localization Providers
Software Localization Services
Website Localization Services
Multilingual Desktop Publishing Providers
Transcription Services
Translation Providers
Audio Translation Services
Document Translation Services
Real-Time Text Translation Providers
Video Translation Services
Website Translation Providers
Value-Added Resellers (VARs)
Acumatica Channel Partners
Adobe Channel Partners
Amazon Web Services Channel Partners
Autodesk Channel Partners
Cisco Channel Partners
Cisco Cloud Resellers
Cisco Data Center Resellers
Cisco Hardware Resellers
Cisco Unified Communications Resellers
Other Cisco Resellers

Deltek Channel Partners
Epicor Channel Partners
Infor Channel Partners
Infor CRM Resellers
Infor EAM Resellers
Infor ERP Resellers
Infor Distribution FACTS Resellers
Infor Distribution SX.e Resellers
Infor LN Resellers
Infor M3 Resellers
Infor SyteLine Resellers
Infor VISUAL Resellers
Infor XA Resellers
Infor SunSystems Resellers
Infor Xi Resellers
Other Infor Resellers
Microsoft Channel Partners
Microsoft Azure Resellers
Microsoft Dynamics 365 Resellers
Microsoft Dynamics CRM Resellers
Microsoft Dynamics ERP Resellers
Microsoft Dynamics AX Resellers
Microsoft Dynamics GP Resellers
Microsoft Dynamics NAV Resellers
Microsoft Dynamics SL Resellers
Microsoft Office 365 Resellers
Other Microsoft Resellers
SharePoint Resellers
Oracle Channel Partners
NetSuite Resellers
Oracle Cloud Application Resellers
Oracle Database Resellers
Oracle ERP Resellers
Oracle E-Business Suite Resellers
Oracle JD Edwards EnterpriseOne Resellers
Oracle PeopleSoft Resellers
Oracle Fusion Applications Resellers
Oracle Hyperion Resellers
Oracle Primavera Resellers

Oracle Siebel Resellers
Other Oracle Resellers
Other VARs
Qlik Channel Partners
Sage Channel Partners
Other Sage Resellers
Sage 100 Resellers
Sage 300 Resellers
Sage 500 Resellers
Sage 50 Resellers
Sage BusinessVision Resellers
Sage BusinessWorks Resellers
Sage CRM Resellers
Sage Fixed Assets Resellers
Sage HRMS Resellers
Sage Intacct Channel Partners
Sage X3 Resellers
Salesforce Channel Partners
SAP Channel Partners
Other SAP Resellers
SAP BusinessObjects Resellers
SAP Cloud Resellers
SAP ERP Resellers
Business ByDesign Resellers
SAP Business All-in-One Resellers
SAP Business One Resellers
SAP HANA Resellers
SAP Hybris Resellers
SAP SuccessFactors Resellers

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IMPLICATIONS OF HUMANISTIC MANAGEMENT FOR THE EMPLOYER AND THE EMPLOYED

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Abstract: Humanistic management may be among the latest buzzwords, but the older generation maintains that it knew all about it all along. Some of them had practised it at the workplace. It is all about workplace dignity. By giving it a fancy name, Generation Z is only reinventing the wheel. Upon interaction with the respondents selected for the study, the researcher concludes that humanistic management can help reduce attrition and raise employee productivity. As a result, the employer can become more price-competitive and quality-competitive at the workplace. Thus, the outcome is a virtuous cycle of enhanced productivity, enhanced competitiveness and reduced training costs. But what piqued the curiosity of the researcher was why, to this day, humanistic management remains an exception and not the rule, across the employer community. This is because employers placed more faith in authoritative managers than in individual workers and group dynamics. They ignored interpersonal relationships. They failed to acknowledge the value of dignity in the economics and management space! This amounts to being wise to the penny and foolish to the pound. At best, it may lead the employee to churn out products at the same dreary pace for the rest of his/her work life. For all one knows, the employee concerned may be capable of delivering more but no thanks to absence of humanistic management, the employee concerned is seldom motivated to excel himself/herself at the workplace. Humanistic management dispels the notion that productivity level is the same across employees.

Keywords: attrition, buzzword, humanistic management, reinvent, virtuous cycle.

Introduction

Humanistic management may be among the latest buzzwords one comes across in the country today, but the older generation sees nothing new in it. The older generation maintains that it knew all about it all along and some of them had practised it at the workplace. None of them raised the decibels on the subject, though. The older generation shrugs off the buzz phrase by retorting that humanistic management is all about workplace dignity. By giving it a fancy name, Generation Z is only reinventing the wheel. The old generation is right in a way since it is well known that jargonizing the familiar may even impede communication. It is thus time one ascertained whether humanistic management is mere jargonization of the familiar or something more than that. No better way to go about it than by interacting with the two main respondent categories associated with the subject, namely the employer and the subject experts/consultants!

1. Statement of the problem

Humanistic management is being undertaken in our country in fits and starts. Still it has impacted a few businesses . Hence the impact has to be ascertained. Having said that one should identify the reasons behind humanistic management not taking off fully. It is this problem the present study seeks to address.

2. Review of literature

2.3.1.

Humanistic management has lately been drawing interest and criticism alike. It constitutes the basis for organizational practices in areas like learning, employee relations, development, motivation, culture and community (Arora & C, 2013). Being a component of the economic intent of organizations, it targets superior performance of individuals, organizations, and society, even as it retains human interest at its core.

2.3.2.

The contrasting views on the subject however regard it to be an idealist and non-realistic perspective. According to McGuire et al, the humanistic management approach, in its attempt to promote caring and people-centric organizations and accounting for societal and employee concerns, does not reckon the real-world scenario where business objectives of ‘increasing shareholder returns, profit, market share, and, ... maximizing employee productivity at minimum cost’ are of prime consideration (McGuire, Cross, & O’Donnell, 2005).

2.3.3.

Literature on humanistic management places emphasis on the need for and significance of the humanistic management approach. The approach encompasses ‘relationships, compassion, and virtuous actions’, the associated processes and their outcomes in generating ‘dynamic capabilities’ in an organizational context (Wooten, & Crane, 2004, p. 848).

2.3.4.

Humanistic management is a modern management imperative (Mele, 2003). It has its origins in the Greek word" Humanitas". The latter is associated with the humane concepts of 'understanding, benevolence, compassion, mercy ...[along with]... fortitude, judgment, prudence, eloquence and love of honour'.

3. Research gap

The reviewed literature has not adequately examined the impact of humanistic management on the stakeholders of businesses. Nor has it identified the factors that led to the failure of humanistic management in some businesses. It is this gap the present study proposes to bridge.

4. Scope of the present study

The study confines itself to employer respondents and consultant respondents based out of Bangalore city.

5. Objectives of the study

The objectives of the study are to:

1. Ascertain the impact of humanistic management
2. Identify the factors that led to the failure of humanistic management in some businesses.

6. Hypothesis proposed to be tested

The study proposes to test the following hypothesis:

"Businesses have placed more faith in authoritative managers than in individual workers and group dynamics".

7. Research design

7.1. Research methodology

The study is descriptive in nature and has used the 'fact-finding' survey method.

7.2. Sources of data

Primary data has been collected from Bangalore-based employers and consultants covered by the study.

Secondary data has been collected from various publications , including books , journals and the financial press in soft and hard versions.

3.3. Sampling plan

1. Employer respondents: Given the limited number of employers with exposure to humanistic management and operating in the vicinity where the researcher lives, and the time constraint involved, purposive or judgement sampling under the non-probability method has been employed. Applying a minimum exposure of five years to humanistic management as the criterion, the researcher selected 30 such employer respondents.
2. Consultant respondents: Given the limited number of consultants consulting in the humanistic management space and operating in the vicinity where the researcher lives, and the time constraint involved, purposive or judgement sampling under the non-probability method has been employed. Applying a minimum exposure of five years to humanistic management as the criterion, the researcher selected 30 such consultant respondents. The criteria applied is the most appropriate one for the present study. What is important is the typicality and the relevance of the sampling units to the study and not their overall representativeness to the population. Thus, it guarantees inclusion of the relevant elements in the sample. Probability sampling plans cannot give such a guarantee.

7.4. Data collection instruments

Interview schedules, specially designed for the purpose, were administered to the respondents for collection of primary data.

7.5. Data processing and analysis plan

Non-parametric statistical units were used to test the association between qualitative characters and conclusions were drawn on the basis of formation of H_o and H_1.

7.6. Limitations of the study

Primary data has sometimes been deduced through constant topic-oriented discussions with the respondents. Possibly, a certain degree of subjectivity, even if negligible, has influenced their views.

8. Employer respondents

In the following paragraphs, the primary data collected from the employer respondents is analysed.

8.1. Impact of humanistic management

With the virtues of humanistic management being increasingly bandied about in business circles, the researcher sought to know the impact of humanistic management from the respondents . Their replies to the query appear in the Table 1.

Table 1.
Impact of humanistic management

Impact	Number of respondents
It helps reduce attrition rate	24
It helps the employer become more price-competitive and more quality-competitive	23
It helps raise employee productivity	21
It helps reduce employee training costs	20

24 respondents aver that humanistic management helps reduce attrition rate. It helps the employer become more price-competitive and more quality-competitive, assert 23 respondents. It helps raise employee productivity, according to 21 respondents. It helps reduce employee training costs, according to 20 respondents.

8.2. Reasons behind humanistic management not taking off in some businesses

In some businesses, humanistic management has not taken off. Hence the researcher requested the respondents to disclose the reasons thereof. Their replies to the query appear in the Table 2.

Table 2.
Reasons behind humanistic management not taking off in some businesses

Reasons	Number of respondents
Businesses have placed more faith in authoritative managers than in individual workers and group dynamics	13
Businesses have failed to place emphasis on interpersonal relationships	11
The intrinsic value of dignity is yet to be acknowledged in the economics and management space.	10

Businesses have placed more faith in authoritative managers than in individual workers and group dynamics, admit 13 respondents. Businesses have failed to place emphasis on interpersonal relationships, admit 11 respondents. The intrinsic value of dignity is yet to be acknowledged in the economics and management space, admit 10 respondents.

9. Consultant respondents

In the following paragraphs, the primary data collected from the consultant respondents is analysed.

9.1. Impact of humanistic management

With the virtues of humanistic management being increasingly bandied about in business circles, the researcher sought to know the impact of humanistic management from the respondents . Their replies to the query appear in the Table 3.

Table 3.
Impact of humanistic management

Impact	Number of respondents
It helps reduce attrition rate	27
It helps raise employee productivity	27
It helps the employer become more price-competitive and more quality-competitive	26
It helps lower labour cost for the employer	26
It helps reduce employee training costs	26
It helps dispel the notion that productivity level is the same across employees	25
It helps improve the decision-making capability of employees	25
It helps reduce employee training costs	24

It helps reduce attrition rate, aver 27 employees. It helps raise employee productivity, over 27 respondents. It helps the employer become more price-competitive and more quality-competitive, state 26 employees. It helps lower labour cost for the employer, according to 26 respondents. It helps reduce employee training costs, according to 26 respondents. It helps dispel the notion that productivity level is the same across employees, aver 25 respondents. It helps improve the decision-making capability of employees, aver 25 respondents. It helps reduce employee training costs, according to 24 employees.

9.2. Reasons behind humanistic management not taking off in some businesses

In some businesses, humanistic management has not taken off. Hence the researcher requested the respondents to disclose the reasons thereof. Their replies to the query appear in the Table 4.

Table 4.
Reasons behind humanistic management not taking off in some businesses

Reasons	Number of respondents
The intrinsic value of dignity is yet to be acknowledged in the economics and management space.	27
The relevance of dignity to society and social sciences has not been taken seriously by any stakeholder	27
Businesses have placed more faith in authoritative managers than in individual workers and group dynamics	25
Businesses have failed to place emphasis on interpersonal relationships	24

The intrinsic value of dignity is yet to be acknowledged in the economics and management space, aver 27 respondents. The relevance of dignity to society and social sciences has not been taken seriously by any stakeholder, aver 27 respondents. Businesses have placed more faith in authoritative managers than in individual workers and group dynamics, according to 25 respondents. Businesses have failed to place emphasis on interpersonal relationships, aver 24 respondents.

10. Summary of findings

In the following paragraphs, the findings arrived at in respect of the two categories of stakeholders are furnished:

10.1. Employer respondents

24 respondents aver that humanistic management helps reduce attrition rate. It helps the employer become more price-competitive and more quality-competitive, assert 23 respondents. It helps raise employee productivity, according to 21 respondents. It helps reduce employee training costs, according to 20 respondents.

Businesses have placed more faith in authoritative managers than in individual workers and group dynamics, admit 13 respondents. Businesses have failed to place emphasis on interpersonal relationships, admit 11 respondents. The intrinsic value of dignity is yet to be acknowledged in the economics and management space, admit 10 respondents.

10.2. Consultant respondents

It helps reduce attrition rate, aver 27 employees. It helps raise employee productivity, over 27 respondents. It helps the employer become more price-competitive and more quality-competitive, state 26 employees. It helps lower labour cost for the employer, according to 26 respondents. It helps reduce employee training costs, according to 26 respondents. It helps dispel the notion that productivity level is the same across employees, aver 25 respondents. It helps improve the decision-making capability of employees, aver 25 respondents. It helps reduce employee training costs, according to 24 employees.

The intrinsic value of dignity is yet to be acknowledged in the economics and management space, aver 27 respondents. The relevance of dignity to society and social sciences has not been taken seriously by any stakeholder, aver 27 respondents. Businesses have placed more faith in authoritative managers than in individual workers and group dynamics, according to 25 respondents. Businesses have failed to place emphasis on interpersonal relationships, aver 24 respondents.

11. Conclusions

Conclusions relate to the hypotheses. They are answers to the research questions.

Hypothesis testing

Hypothesis

The following is the hypothesis proposed to be tested:

“Businesses have placed more faith in authoritative managers than in individual workers and group dynamics”.

Hence H_0 and H_1 are as follows:

H_0: Businesses have not placed more faith in authoritative managers than in individual workers and group dynamics.

H_1: Businesses have placed more faith in authoritative managers than in individual workers and group dynamics.

On the basis of the primary data collected from the respondents, vide Tables: 2 and 4, a chi-square test was applied to ascertain the association, if any, between the two variables. The Table 5 reveals the computation made using MS-Excel:

Table 5.
Reasons behind humanistic management not taking off in some businesses

Category	Observed Values		
	Yes	No	Total
Employers	13	17	30
Consultants	25	5	30
Total	38	22	60
Category	Expected Values		
	Yes	No	Total
Employers	19	11	30
Consultants	19	11	30
Total	38	22	60
	Yes	No	
o-e	-6.0000	6.0000	
	6.0000	-6.0000	
(o-e)^2	1.0000	1.0000	
	1.0000	1.0000	
((o-e)^2)/e	0.0526	0.0909	
	0.0526	0.0909	
CV	0.1053	0.1818	0.2871
TV			3.8415
p			0.0351

The calculated value of χ^2 is 0.2871, lower than the table value of 3.8415 for an alpha of 0.05 at one degree of freedom. Hence the alternate hypothesis is rejected, and the null hypothesis is not rejected.

12. Researcher's recommendations

Humanistic management does help reduce the attrition rate for the employer . This should come as a great relief to businesses that have to otherwise preoccupy themselves with appointing people every now and then and training them for the job, only for the cycle to repeat once the next round of attrition occurs.

An employee who has been exposed to humanistic management at the workplace, contributes more to the employer by way of vastly improved productivity and what is more, sticks with the organisation. This reduces the employee cost for the employer. Since such an employee becomes more involved in the work assigned to him/her, he/she goes the extra mile to ensure that the quality of his/her output is of a higher order. In other words, such an employee will help the business concerned become more price-competitive and more quality-competitive at the marketplace, eventually.

Businesses unfortunately have been placing more faith in authoritative managers than in individual workers and group dynamics. This amounts to being wise to the penny and foolish to the pound. At best, it may lead the employee to churn out products at the same dreary pace for the rest of his/her work life. For all one knows, the employee concerned may be capable of delivering more but no thanks to absence of humanistic management, the employee concerned is seldom motivated to excel himself/herself at the workplace.

The intrinsic value of dignity is yet to be recognised in fields like economics and management and this is unfortunate. Workplace dignity is the essence of humanistic management and businesses that miss out on humanistic management miss out on their bottom-lines too. The researcher strongly recommends that workplace dignity is given its due in the economics and management space in the interest of the business concerned and its growth.

Employees exposed to humanistic management outpace their workplace colleagues in areas like production, productivity , precision , innovation and quality. These tributes enhance their decision-making capabilities too. This should help the management since many issues are sorted out at the lower level of the organisational hierarchy rendering management intervention superfluous.

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TOWARDS SUSTAINABILITY: REQUIRED COMPETENCIES OF MANAGEMENT GRADUATES

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Abstract: India is transiting to a knowledge society where the goal of business is changing. In this knowledge era business houses are concentrating on people, planet and profit that lead the path towards prosperity, sustainability. Sustainability is developing prosperity, without compromising the life of future generations. There are three pillars of sustainability: social, environmental, and economical. Today companies are integrating ideas of sustainability in their core functions to have business success. With see changes in the country's economy new models of business is coming up. Companies are setting up that are more resilient and thrives in the long term. In a true sense a sustainable business model is a more accepted model in today's business place that generates profit while improving societal and environmental conditions. This has given room for many new opportunities which in turn has given way to the fresh graduates to be more productive and contribute for the development of the organization as well as the nation. To meet the goals of sustainability and sustainable business there are many challenges the management graduates particularly needs to face. The development of a country is directly connected with quality education. The education system in India has to undergo a lot of reformation to produce competent students to match the requirements to drive sustainable development. Existing courses in Management Education needs to be more realistic to realize the needs of sustainability. Currently the success factor of Universities and Colleges is to produce graduates not just with the degree but in addition to it to produce competent prospective candidates for employment or entrepreneurs who can conduct themselves productively and efficiently in the dynamic economy and bring social change. This paper reports a literature-based analysis of the coverage of the competencies required for considering sustainability aspects for management graduates. The study aims to specify the required competencies for management students to become managers with regards to sustainability, and to provide guidance on how to close the competency gap.

Keywords: Competencies, Dynamic Economy, Employability, Sustainable Development, Management Education.

Introduction

The Education system prevailing today is responsible to produce quality students with appropriate knowledge, skill and abilities called as competencies to face the challenges of business and society. Nurturing people with the right kind of competencies required towards peace, progress and sustainability is the fundamental activity needed for the economic development of the country. Management education can bring reformative changes towards socio-economic development of the country by imbibing required competencies among the would-be business leaders towards a sustainable economy. But it's a matter of concern that our management graduates turned as business leaders are limiting their attention only to the business. Business is integrated to society and at this juncture much more is expected from a management graduate. Specific competencies are needed by every Management graduate to get employed or become entrepreneurs and contribute to the sustainable development of the country having in mind for the wellbeing of the people inside and outside of the organization as well as the ecosystem or the planet for the present and the future generations.

Most large companies acknowledge the need to be more responsive to the shifting societal expectations, to be better able to establish trusting relationships with stakeholders, and to become more open and accountable. And yet those same companies often struggle to translate good intentions into good practice. In no small way this is due to the lack of any serious, practical guidance addressing the outmoded way in which leaders tend to be selected and developed. Its high time management schools bridge that "sustainability competency gap " among the graduates .

Business as usual won't get the job done – and sustainability as usual won't suffice. If we are to expect climate change, build truly fair and inclusive economic growth, and navigate a radically reshaped world, it is time for a change. Businesses that thrive in the future will be those that figure out how to harness these changes to address real human needs – placing sustainability at the heart of business strategy. And to make it possible management education plays a key role. The additional responsibility of every management institute is to educate the graduating students to be thought leaders, social entrepreneurs and drive sustainable development. Due to the increasingly complex and dynamic nature of organization and business because of digitalization, technological advancement along with concern for humans, there is change in business opportunities which need to be identified or in most cases opportunities to be created and utilized in the most productive manner. Thus, there is a need that the business schools along with imparting relevant, current, and cutting-edge knowledge, impart the essential competencies needed by the students to integrate people, profit and planet and to expand their scope of functioning after obtaining a management degree.

1. Objectives of the study

The study was planned with the following objectives:

1. To identify the Competencies required by the management graduates to drive sustainable development.
2. To assess the influence of current management education in motivating management students to become a social change agent.
3. To identify existing competency gap towards corporate sustainability and identify strategies to addressed it.
4. To create awareness among management students regarding sustainable development and clarify their role in it.

2. Literature review

Sustainability and Business

Sustainability is most often defined as meeting the needs of the present without compromising the ability of future generations to meet theirs. It has three main pillars: economic, environmental, and social. Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The goal of which is to achieve balance/harmony between environment sustainability, economic sustainability and socio-political sustainability.

Together with the tendencies of earlier centuries, corporations operating in the 21st century need to face new, ever more significant challenges. One of the most striking challenges is sustainable development, or sustainability in itself, as it has become a central issue for today's corporations and it also has an outstanding impact on the majority of a corporation's business operations. According to Kerekes and Wetzker (2007), corporations bearing in mind such criteria for sustainability as economic goals, social orientation and environmental awareness have to be prepared for the fact that, while social and environmental standards have become more stringent, the social and environmental nature of their activities will eventually be one of the most important factors of their competitiveness.

While the idea of sustainability deeply influences the life of corporations, they cannot state – especially in the Eastern European countries – that their activities are in line with the principles of corporate sustainability, mainly because of the lack of related theoretical and methodological knowledge and leadership shortcomings.

The definition of corporate sustainability states that economic interests cannot be isolated from social and ecological limits and interests. For example, sustainable business takes into account the interests of future generations, biodiversity, animal protection, human rights, life cycle impacts, and principles like equity, accountability, transparency, openness, education and learning, and local action and scale. Innovation for sustainability involves networks of actors with very different perspectives, interests, and cultures spanning different levels and contexts. Gyula Fullop (2012).

3. Competencies needed by management graduates to drive Sustainability

Corporate leaders can be considered competent who, firstly, take the responsibility of operating their corporations in a broader sense that goes well beyond economic responsibility and integrates social and environmental concerns as well, and secondly, have the ability to integrate elements into their everyday decisions and activities that allow the practical manifestation of their broader responsibility, as was noted by Szegedi in his study (2011).

Table 1 below shows the competencies that underscore the work of various authors and that support the competencies in innovation for corporate sustainability. In this table, six comparable competence categories are used. This competency is in the fields of systemic thinking, learning, integrating, developing alternative models and methods, networking and building coalitions that span diverse groups.

From the relevant literature we can see that adopting approaches to sustainability requires, broadly, three core skills: a flexible mindset and strategic and technical capabilities.

Sustainability requires a ‘can do’ attitude (in essence, a positive mindset) which sets the tone for overcoming ‘business-as-usual’ attitudes. Moving away from ‘business as usual’ requires a cultural change, but without personal commitment there can be no industry-wide change. So, at its most fundamental, sustainability is about exploring and identifying personal values. More often than not, there is a strong correlation between personal values and sustainability values. Moreover, aligning personal values with organizational values to provide a united vision is a key part of the sustainability learning journey.

Table 1.
Managerial Competencies required towards organizational competencies in innovation for corporate sustainability

Managerial Competencies / Authors	European Commission (2001)	Roome (2001)	Clarke and Roome (1995)	Sweet et al. (2003)	Partidario and Vergragt (2002)	Remmen (1995)	VROM-raad (2002)	Rip et al. (1995)	Herbold (1995)	Hawk (1999)	Boons and Berends (2001)	Jelsma (1995)	Shilling and Osha (2003)	Martens et al. (2003)	Foster and Green (2000)	Dyllick and Hockerts (2002)	Winter and Steger (1998)	Wynne (1995)
1. System thinking	v	v	v	v			v			v				v				
2. Competencies for learning and developing																		
a) To learn and translate learning into action, to deal effectively with the requirements, values, assumptions and cultures of various interacting network actors, to successfully understand and execute innovation activities with the network	v	v	v	v	v	v	v	v	v		v	v				v	v	v
3. Competencies for integrating business, environmental and social problems, perspectives and information																		
a) To integrate the perspectives and knowledge of different actors in the network	v	v	v	v	v	v		v					v					
b) To integrate traditional criteria of efficiency with eco- and socio-efficiency and effectiveness	v	v					v	v						v		v		
4. Competencies to develop alternative business models, methods and trajectories that are more synthetic, dynamic, and pragmatic, to enable radical or systemic innovation		v			v		v			v								
5. Networking and social competencies																		
a) To develop social relations with (culturally) unfamiliar actors in- or outside the organization for information gathering, experimentation and negotiation	v	v	v	v	v	v			v	v	v	v			v		v	v
b) To create and cultivate broad, diverse, inclusive networks for learning to cope with uncertainty and for gathering information and diverse approaches from actors	v	v	v		v	v			v		v	v	v		v			
c) To build trust, a shared vision and agreement on basic values		v		v	v					v	v							
d) To involve local actors & initiatives	v	v				v			v				v	v				
6. Coalition and collaboration building competencies																		
a) To promote joint action by many different (local) stakeholders, an open process of innovation and adaptation, building a shared vision, supporting collaboration and collective problem finding	v	v	v	v	v	v	v	v	v			v	v	v	v			
b) To integrate differences in information processing and decision styles, to deal with differences in the width of focus and the desired degree of maximization of the result				v														

Source: 'Club of Economics in Miskolc' TMP Vol. 8., Nr. 2, pp. 17-22, 2012.

Table 2.
Primary skill set and themes for sustainability

Theme	Primary skill sets
1 Mindset	1.1 Values, motivation and action
	1.2 Awareness of core principles and themes
	1.3 Communication and collaborative working
	1.4 Systems and futures thinking
	1.5 Leadership
2 Strategy	2.1 Business case and strategy
	2.2 Change management
	2.3 Innovation
3 Technical	3.1 Technical Level 1
	3.2 Technical Level 2

Source: Defining a profession: core competencies for Sustainability, Stephen Bickell, July 2013.

Taking a responsibility for sustainability requires adequate competencies. These "sustainability competencies" have most explicitly been addressed in the extensive literature on "Education for Sustainable Development" (ESD). A report on ESD in European higher education states: "The competency required for Sustainable Development is manifold, but the basis of it is relevant knowledge and an ability to think, act and take responsibility out of a holistic understanding of the preconditions of life on earth in a global perspective. It includes the ability to continuous learning from others and the ability to cooperate over disciplinary and professional borders, to think and analyze critically and to solve problems seeing possibilities and limitations in one's processional role. An important ability is also that of complex thinking and using specialists for different areas leaders need to have the ability to create enthusiasm and to think in new creative ways.

A frequently cited concept in Education for Sustainability Development literature is that of "Gestaltungskompetenz" (shaping competence). This Gestaltungskompetenz encompasses a set of key competencies which are expected to enable active, reflective and co-operative participation toward sustainable development. Learning processes which are based on this approach enable students to have the skills, competencies and knowledge to "modify and shape the future of society, and guide its social, economic, technological and ecological changes along the lines of sustainable development".

De Haan identified eight (sub-)competencies of the "Gestaltungskompetenz", that later developed into the following set of key competencies:

- Competence for perspective-taking: Being open-minded and creating knowledge from new perspectives.
- Competence for anticipation: Being forward-looking in analysis and evaluation of developments.
- Competence for interdisciplinary knowledge acquisition: Acquiring interdisciplinary knowledge and acting on it.
- Competence for dealing with incomplete and overly complicated information: Recognizing risks, dangers and uncertainties and being able to evaluate them.
- Competence for cooperation: Being able to plan together with others and take action.
- Competence to deal with individual decision-making dilemmas: Being able to handle conflicting goals when reflecting on action strategies.
- Competence for participation: Being able to take part in collective decision-making processes.
- Competence for motivation: Being able to motivate one's self and others to take action.
- Competence for reflecting on goals: Being able to reflect on one's own goals and those of others.
- Competence for moral action: Being able to use ideas of justice as a basis for making decisions and acting.
- Competence for independent action: Being able to independently plan and act.
- Competence for supporting others: Being able to show empathy towards others.

The development of knowledge and understanding has both personal and shared elements to it. Social interaction allows one to relate or mirror his or her ideas, insights, experiences and feelings to those of others.

Another component of sustainability competence is the ability to cope with uncertainty. The professional working on sustainable development applies his/her competencies in a context of uncertainty. And instead of denying this inherent nature of the context, by striving towards minimizing uncertainty and maximizing predictability, it might be more fruitful to accept uncertainty as an inescapable condition, and cope with it

In many ways' **leadership skills** encapsulate the skills that are required to embed sustainability. It is important to define what is meant by leadership. Effective leadership is as much about championing sustainability as about fulfilling the traditional role of great leaders. Leadership skills are required for sustainable economy which includes the ability to consistently work towards a **longer-term vision** of how the organization might contribute to a sustainable economy, together with an ability to **inspire** people – both inside and outside the organization – to act on corporate sustainability. Six separate corporate sustainability leadership competencies: **ethics and integrity; external awareness and appreciation of trends; visioning and strategy formulation; risk awareness, assessment and management; stakeholder engagement; and flexibility and adaptability to change.**

Table 3.
Critical leadership competencies to drive sustainability

Competency	1	2	3	4	5	6	7	Definitions	How difficult to develop?
Perspective	■	■	■	■	■	■	■	Takes an all encompassing view of a problem or challenge. Has a broad range of interests, can see the bigger picture.	Moderate
Strategic Agility	■	■	■	■	■			Can articulately paint credible pictures and visions of possibilities and likelihoods. Can create breakthrough strategies and plans.	Harder
Politically Savvy	■	■	■	■	■	■		Maze bright, manoeuvres effectively through complex political situations. Views corporate politics as part of organizational life.	Hardest
Integrity & Trust	■	■	■	■	■			Is widely trusted. Can present the unvarnished truth in an appropriate and helpful manner.	Easier
Ethics and Values	■	■	■	■	■			Adheres to a set of values in good and bad times. Practices what she/he preaches.	Moderate
Managing Vision and Purpose	■	■	■	■	■			Communicates a compelling sense of core purpose. Makes the vision sharable. Creates mileposts & symbols to rally support for the vision.	Moderate
Understanding others	■	■	■	■	■	■		Understands why groups do what they do and can predict behaviours across different situations. Knows how to motivate them.	Hardest
Managing Diversity	■	■	■	■	■	■		Manages all classes of people equitably. Deals effectively with all races, nationalities, cultures, disabilities, ages and both sexes.	Hardest
Priority Setting	■	■	■	■	■			Can quickly sense what will help or hinder accomplishing a goal. Eliminates roadblocks and creates focus.	Easier
Managing Through Systems	■	■	■	■				Designs pratices and processes allowing remote management. Is comfortable letting things manage themselves without intervening.	Harder

1= not important and 7= mission critical
Korn/Ferry uses the Lominger competency framework for leadership benchmarking. We refer to the book *FYI For Your Improvement* as a reference guide and suggested reading for executives.

Source: http://cecodes.org.co/site/wpontent/uploads/publicaciones/Rol%20del%20Negocio/Cultura%20Empresarial/PeopleMatterLead.pdf.

Many of the leadership skills for sustainability are variations of the classic leadership and management skills, i.e. analysis, priority-setting and relationship building. However, to navigate the transformation toward sustainability, leadership skills have to be directed at a broader and more complex set of issues and networks.

Businesses will have to be networked with governments and society, and we need people who know how to do that.” Korn/Ferry refers to leadership competencies as the “DNA” of leadership. There is no perfect combination, but different leadership styles and skill sets are better adapted to different missions. Korn/Ferry’s Peter Everaert says: “It would be too simplistic to promote a single ideal leadership profile to drive sustainability. One has to recognize that the best leadership style is always function of the challenge, the specificity of the organization and the environment in which its operates”.

Weybrecht (2010) shows how a strategy sits at the hub of a giant sustainability jigsaw puzzle and provides the glue that ties all aspects of organizational behavior together. The corner pieces of the puzzle are the four key areas which an organization should use as a basis from which to address sustainability. At the heart of the jigsaw is strategy, while the pieces in between help tie it all together.

Table 4.
All inclusive sustainability business model

Ethics Providing strong, clear governance to deliver ethical behaviour, transparent stakeholder relationships and effectively manage environmental economic and social impacts on the communities they serve	**Accounting** Building systems, establishing sustainability targets and objectives and providing sustainability information to influence decision-making	**Economics** Helps to understand the macro environment which influences the business. Explore mechanisms to allow companies to internalise costs to society and contribute positively to economic and social development
Finance Considering long-term opportunities that responsibly and effectively manage their environmental, economic and social impacts	**Strategy** The right approach for the right company implemented in a way that mobilises the whole company	**Marketing** Designing and promoting sustainable options and inspiring change
Entrepreneurship Identifying and exploring new sustainable (business) solutions both inside and outside the organisation	**Operations** Taking responsibility for all social and environmental impacts across the lifecycle of a company's products and services	**Organisational behaviour** Translating sustainability policy into action and creating a work environment where sustainability is embedded in the culture of the organisation including every aspect of the employee's lifecycle from recruitment to retirement

Source: Defining a profession: core competencies for Sustainability, Stephen Bickell, July 2013.

Because of its wide-ranging nature many organizations find it extremely difficult to place sustainability effectively; indeed, sustainability cannot be covered by any one single person or department in an organization. The responsibility for sustainability therefore lies principally at an individual level, not with a department, or sustainability expert. It is not 'someone else's problem'. Understanding this goes a long way to developing a strategic response. Sustainability competencies among management graduates must include all these above-mentioned aspects.

4. Competency and skills gap profile of Management Graduates

In the literature a variety of competencies are mentioned that are required for graduates to focus on sustainability.

Field (2002) believed a graduate should appreciate one's role in the organizational environment and "understand workplace relationships, dynamics and interdependencies and values that align with enterprise values". Magill and Herden (1998) emphasized the role of ethics as a set of basic values, including honesty and respect for diversity, which guide managerial behavior. To exhibit ethical and professional behavior is important (Bell, 2004, as cited in Hurt, 2007). Robinson (2005) believed ERP is increasingly important to new graduates as professions and businesses become aware of their social duties.

Lifelong learning is a key competency Managing one's own learning in the context of business needs; using networks (people and technology) to support one's own learning; willingness to take advantage of learning opportunities; support others in their learning and contribute to the learning environment (Field, 2001). Life experience teaches a long which can drive towards sustainability. "Any graduate with additional life experience… is considered to have added value. It shows they have developed some skills which can be useful for the role we are recruiting either directly or transferable" (CIHE, 2008, p. 11). To address the issues of sustainability **Cultural and diversity management is a priority skill.** Diversity is defined as to "learn from and work collaboratively with individuals representing diverse cultures, races, ages, gender, religions, lifestyles, and viewpoints" (Casner-Lotto & Barrington, 2006, p. 16). **Adaptability & change management is highly needed to strive competency.** Be open to new ideas; showing ingenuity in solving problems and addressing challenges; openness to new situations and possibilities; the capacity to learn and change; being flexible and taking on board feedback (Field, 2001).

Providing vision, setting goals, accountability, driving change, motivating and supporting others and monitoring performance (Field, 2001). Ability to manage and motivate others (AIG, 2006b; Pedagogy for Employment Group, 2004). Brownell and Chung (2001, masters) argued that competency-based education provides the "most effective means for delivering on the promise of preparing graduate business students to become leaders in a truly global market place" (p. 143).

5. Findings and suggestions

The role of Management Education is vital in producing competent human resources with adequate business knowledge and exposure that leads to sustainable growth. Management institutions play a prominent role in not just generating business graduates but are constantly involved in the process of developing efficient employees. Therefore, with reference to the competencies identified the following suggestions are recommended towards maximizing impact of management education system on employability and entrepreneurial competency development and effective transformations from a student to prospective candidates to drive sustainable development.

- The regulatory bodies like University Grants Commission (UGC) and Universities must involve continuously in designing new programs to develop competencies that aims for sustainability.
- Curriculum should be revised continuously with the changing business needs.

- New specializations are needed to be implemented in sustainability and value-based education.
- Assessing the student ideologies in developing required competencies through focused assignments activities.
- Management education in India must be student-centric. It must be customized as per the aspirations of the students. The activities in the classroom must be to widen their competencies. It should cater to students as per the industry requirements. And encourage innovation, creativity in education that can make them thought leaders, social entrepreneurs.

Developing the right kind of competencies are vital to corporate competitive advantage through sustainability. Leaders in sustainability roles often have specific expertise in human rights, climate change or environment, health and safety for example. However, the role of a technical specialist is distinct from that of a leader who needs to search for new solutions.

6. Conclusion

The strategy for sustainable development aims to integrate people inside the organization, outside the organization and the planet. And aims at bringing harmony between humanity and nature despite technological advancement, digital world etc. Sustainable development is attempting to bring synchronization between the two antagonistic situation that is humanistic and digitalization.

In this specific context of sustainable development and education, every educational institute must help in competency building of competent graduates to be employees or become entrepreneurs who can become the change agents. To face the challenges of sustainable development the role of every management student as a would-be manager of a corporate world is unique. Inclusion of competencies to the managers no doubt will help the business organizations to contribute the best towards sustainable Economic Development of the country.

Competencies for sustainability need to be all inclusive and incorporate the need for uncompromising delivery which should create business imp, environmental impact and social impact.

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IMPACT OF CSR DELIBERATION FOR SUSTAINABILITY AND SPENDING PATTERNS BY INDIAN COMPANIES

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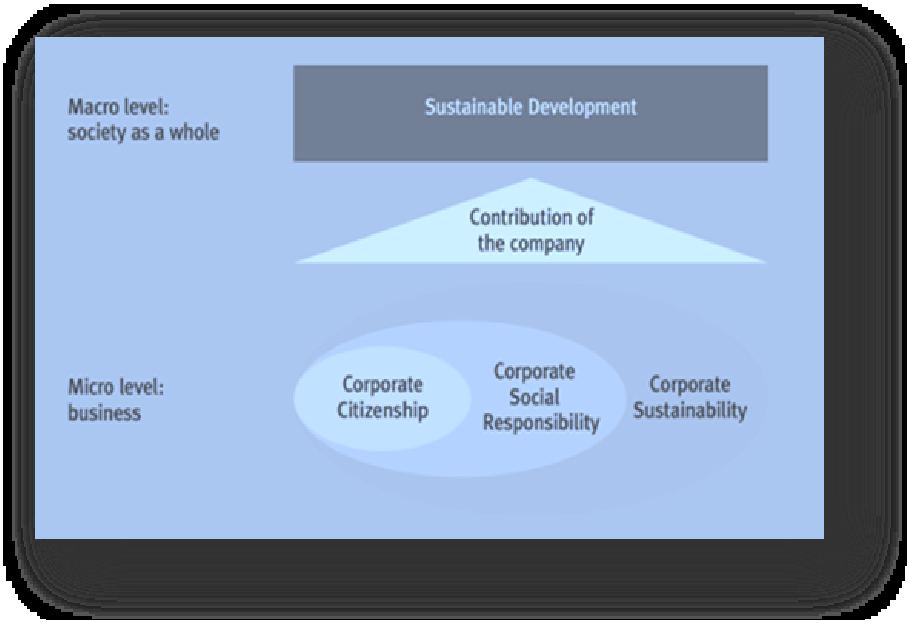
Abstract: Corporate Social Responsibility and sustainability are two faces of a coin, CSR is an importance invisible activity all big business houses and corporate taking up for the betterment of the society and their own sustainability. CSR is applicable in a society for all business, but it is imperative in a developing country like India, where the availability of resources is limited for fulfilling the ever growing desires of the diversified society. CSR interventions have been making enduring changes in the lives of the underprivileged and making CSR a successful process. India is the first country in the world to have made CSR mandatory by constituting it in the Companies Act (VII Schedule) April 2014. As a result various CSR projects are carried out throughout the country. Now, the question is how do these business houses and corporate allocate their CSR funds, How do they spend their CSR funds, what are the bases on which these funds are devised and do they follow any strategic approaches in organizing these funds. This article emphasizes on answering the above questions through a conceptual research on the past studies and Governmental publications. Furthermore the study concludes with the implications of CSR in India and a model for organizing CSR which is used by companies is conferred.

Keywords: Corporate social responsibility, strategic approaches, organizing funds, spending patterns, corporate.

Introduction

The term "Corporate Social Responsibility" started gaining momentum in the 1960s and is used arbitrarily by several to cover lawful and ethical responsibility more closely interpreted. In fact, CSR refers to a business practice that involves participating in initiatives that benefit society (www.csrtimes.com/…).

Corporate social responsibility (CSR), also known as corporate responsibility, corporate citizenship, responsible business, sustainable responsible business (SRB), or corporate social performance, is a form of corporate self-directive incorporated into a business representation.



CSR strategy functions as an integral, self-governing mechanism whereby businesses observe and ensure their adherence to law, moral values, and global norms. Businesses take up the accountability for the impact of their activities on the atmosphere, patrons, workers, societies, stakeholders and all other associates of the public sphere. Furthermore, business would proactively promote the public interest by encouraging community growth and development, and voluntarily eliminating practices that harm the public sphere, regardless of legality.

"CSR has to become a part of the business strategy itself especially since it is the Boards of the Corporation that are now getting involved in CSR initiatives. Ultimately, CSR should be a win-win proposition for both Business and the cause of social development. But the final decision on what type of engagement to undertake belongs only to the Board and the company's CSR committee" – Sibani Swain Economic Advisor, Ministry of corporate affairs – GOI (economictimes.indiatimes.com/…).

1. Literature review

Idowu and Towler (2004) in their study describe that the effect of the explosion in Bhopal of 1984 is still being felt by the unfortunate residents nearly 20 years after the event. Union Carbide, on the other hand is still paying the legal costs of the incident until the present moment. It has been pointed out that the realization of CSR objectives is dependent on the perspectives of business managers who are instrumental in the implementation of CSR practices in organizations (Idowu, and Towler, 2004).

Inglehart and Wetzel (2005) describe that consistent with cultural modernization theory predictions that post materialist values concerned environmental protection are more prevalent in advanced industrialized societies (Inglehart, and Wetzel, 2005).

Engle (2007) has led an investigation titled "Corporate Social Responsibility in Host nations: A Perspective From American Managers", which looks at the impression of 56 US-based senior worldwide business officials with respect to the significance of multinational companies' association in the change of host nations' human rights, neediness, instruction, medicinal services and condition. The aftereffects of this investigation propose that every one of the five zones are viewed as imperative, with the ecological duties of MNCs being seen as the most vital of these five regions (Amity Journal of Corporate Governance, 2016).

Harish Kumar (2012) in his exploration article entitled "CSR Returned to" has tossed lights on four distinct methodologies of organizations towards CSR viz; Good Governance, Ruinous CSR, Optional CSR, and Illusion CSR. He additionally endeavored to feature contention against the CSR and the CSR driver. The specialist additionally discovered eight factors that drive the CSR activities. They are Philanthropic Attitude, Governmental Actions, Environmental Concern, Ethical Consumerism, Crises and Calamities, Globalization and Market compel, Social Awareness and Education, furthermore, Social Expectation (Harish Kumar, 2012).

2. Research gap and research question

Corporate Social Responsibility is an activity that is mandatory on all Indian Companies who exceed the prescribed capital/net profits as per schedule VII of the companies' act 2013. The researchers have stressed on CSR objectives and realization of its importance in changing today's dynamic world, they also discuss n post materialist values concerned to environmental protection and it imperative and ecological duties of MNC and some of the researcher have discussed on methodologies and factors influencing CSR.

As there is the need to address the need and how the companies organize their CSR funds and factors influencing the framing of their strategic approaches in spending the allocated CSR Funds and this is will addressed in this study.

The research questions were that are the companies focusing on delivering the funds to the right causes? Is the spending patterns of funds will Increase mere their sustainability and accountability? Is there environmental and ecological impact through CSR spending in Indian Companies?

3. Objectives of the study

- To study the theoretical and conceptual background of Corporate Social Responsibility.
- To examine the corporate funding and spending for CSR in India in the year 2017.
- To discuss the model of organizing CSR funds by the companies in India.
- To analysis environmental and ecological impacts through CSR spend by Indian Co's.

4. Data Collection

Secondary data was used as a source for further observations and discussions on the topic. Government reports are analyzed and conclusions are derived from the same.

5. Observations

Observations were made about the pattern of CSR fund allocation and spending by selected Indian Companies through the secondary data.

6. Data Analysis

Secondary Data obtained from selected companies was taken for analysis of the areas on which CSR funds are spent by them and their pattern observed.

Objective:1. Conceptual background of corporate social responsibility

Evolution of CSR

CSR is anything but another idea in India. Some expansive corporate like Tata gathering, Birla gathering and Indian Oil Corporation have been occupied with network change programs. Through gifts and philanthropy programs they have been doing their bit for society. The essential target of CSR those days was to boost company's generosity and notoriety. Corporate philanthropy was the term utilized for CSR wherein conventions, culture, religions and family esteems firmly influenced corporate generosity.

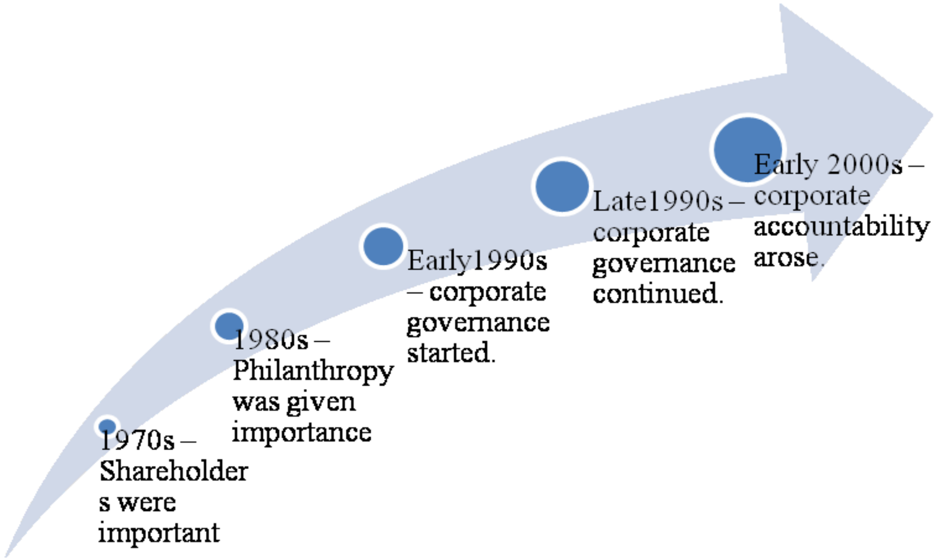


Figure 1. Evolution of CSR.

India has one of the most extravagant customs of CSR. Indian business people guessed, set clear destinations and direct and report their execution in a straightforward way. However, CSR has not yet gotten broad acknowledgment. Lately, Indian organizations are starting to understand that CSR isn't simply one more aberrant cost, however is fundamental in the present situation to shield them against rivalry, to ensure their altruism and notoriety and to stay focused (Tanuja Nair, 493-499).

Legal Framework

Schedule VII Of The Companies Act		
Net Worth	Annual Turnover	Net Profit
US$73 Million (Rs 4.96 Billion) Or More	US$146 Million (Rs 9.92 Billion)	US$732,654 (Rs 50 Million) Or More
2 Percent Of Average Net Profits Of Three Years Towards CSR		

India is the principal nation on the globe to make corporate social obligation (CSR) obligatory, after a change to The Company Act, 2013 in April 2014. Organizations can put their benefits in regions, for example, instruction, destitution, sexual orientation fairness, and appetite.

In the draft Companies Bill, 2009, the CSR statement was deliberate, however it was required for organizations to reveal their CSR spending to investors. It is additionally obligatory that organization sheets ought to have no less than one female part.

CSR has been characterized under the CSR rules, which incorporates however isn't restricted to:

- Projects identified with exercises indicated in the Schedule.
- Projects identified with exercises taken by the organization board as prescribed by the CSR Committee, gave those exercises cover things recorded in the Schedule.

Benefits of CSR

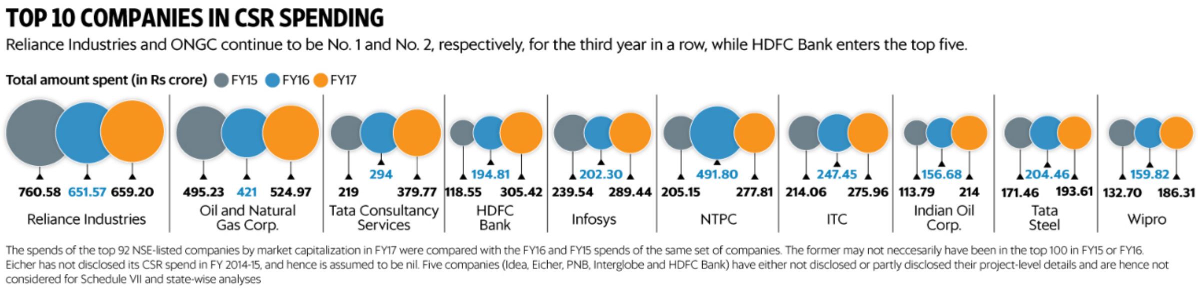
- Stronger money related execution and gainfulness through productive activities
- Improved relations with the speculation network and better access to capital
- Enhanced representative relations that yield better outcomes regarding enlistment, inspiration,
- Retention, learning and advancement, and efficiency
- Stronger associations with networks and upgraded permit to work

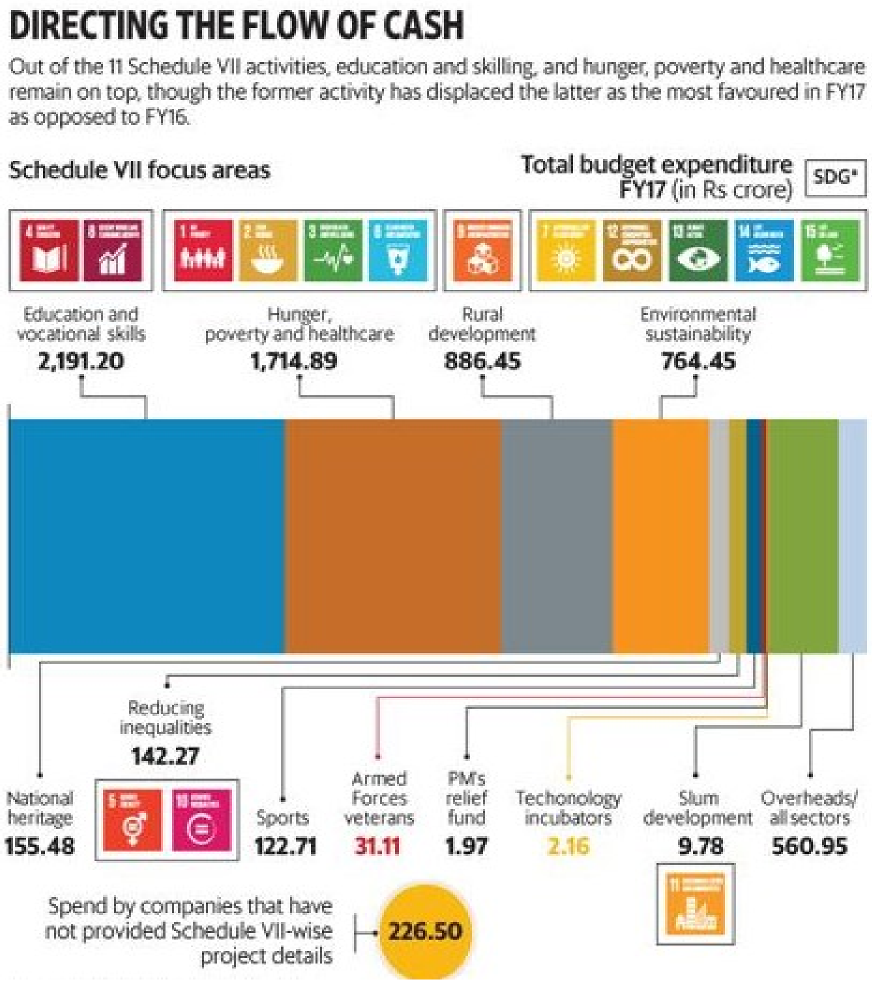
Examples Of CSR In India

<table>
<tr><th>Company name</th><th>CSR – Theme Areas</th><th>CSR-Financials</th></tr>
<tr><td>ओएनजीसी ONGC</td><td>• Varisthajana Swasthya Sewa Abhiyan (2014-2015)
• ONGC Computer centre
• Project Uthkarsh – livelihood project in Sibsagar
• ONGC NSTFDC – Hathkargha Prashikshan
• ONGC Hospital
• ONGC- Eastern swamp deer conservation Projects</td><td><table><tr><th>Year</th><th>2015 2016</th><th>2016 2017</th></tr><tr><td>Actual CSR</td><td>419.06Cr</td><td>525.90Cr</td></tr><tr><td>Prescribed CSR</td><td>593.70Cr</td><td>535.66Cr</td></tr><tr><td colspan="3">Estimated Prescribed CSR Budget FY 2017 - 2018: INR 502.46Cr</td></tr></table></td></tr>
<tr><td>Reliance Industries Limited</td><td>• Eradication Hunger, Poverty, Malnutrition
• Preventive Healthcare, Water and Sanitation
• Education, Employability and Livelihoods Enhancement
• Environmental Sustainability
• Heritage conservation, Promoting Art, Craft and Culture, Public Libraries
• Promoting national and rural sports, Paralympic, Olympic sports
• Contribution to Central Government Fund</td><td><table><tr><th>Year</th><th>2015 2016</th><th>2016 2017</th></tr><tr><td>Actual CSR</td><td>651.60Cr</td><td>659.20Cr</td></tr><tr><td>Prescribed CSR</td><td>557.80Cr</td><td>620.41Cr</td></tr><tr><td colspan="3">Estimated Prescribed CSR Budget FY 2017 - 2018: INR 708.41 Cr</td></tr></table></td></tr>
<tr><td>HDFC BANK We understand your world</td><td>• KC Mahindra Education Trust
• Nisvartha Foundation
• Tomorrows Foundation
• Katha
• Meljol
• Teach to Lead
• Shri Aurobindo Society
• Magic Bus India Foundation
• Pratham Education Foundation
• Isha Education</td><td><table><tr><th>Year</th><th>2015 2016</th><th>2016 2017</th></tr><tr><td>Actual CSR</td><td>127.28Cr</td><td>305.42Cr</td></tr><tr><td>Prescribed CSR</td><td>248.00Cr</td><td>304.00Cr</td></tr><tr><td colspan="3">Estimated Prescribed CSR Budget FY 2017 - 2018: INR 374.04Cr</td></tr></table></td></tr>
<tr><td>Infosys®</td><td>• Eradication Hunger, Poverty, Malnutrition
• Preventive Healthcare, Water and Sanitation
• Education, Employability and Livelihoods Enhancement
• Gender, Equality and Women Empowerment, Senior Citizens Care
• Environmental Sustainability
• Heritage conservation, Promoting Art, Craft and Culture, Public Libraries
• Armed Forces Veteran Welfare
• Rural Development</td><td><table><tr><th>Year</th><th>2015 2016</th><th>2016 2017</th></tr><tr><td>Actual CSR</td><td>202.30Cr</td><td>289.44Cr</td></tr><tr><td>Prescribed CSR</td><td>256.01Cr</td><td>287.42Cr</td></tr><tr><td colspan="3">Estimated Prescribed CSR Budget FY 2017-2018: INR 355.58 Cr</td></tr></table></td></tr>
</table>

Objective 2. To examine the corporate funding and spending for CSR in India in the year 2017

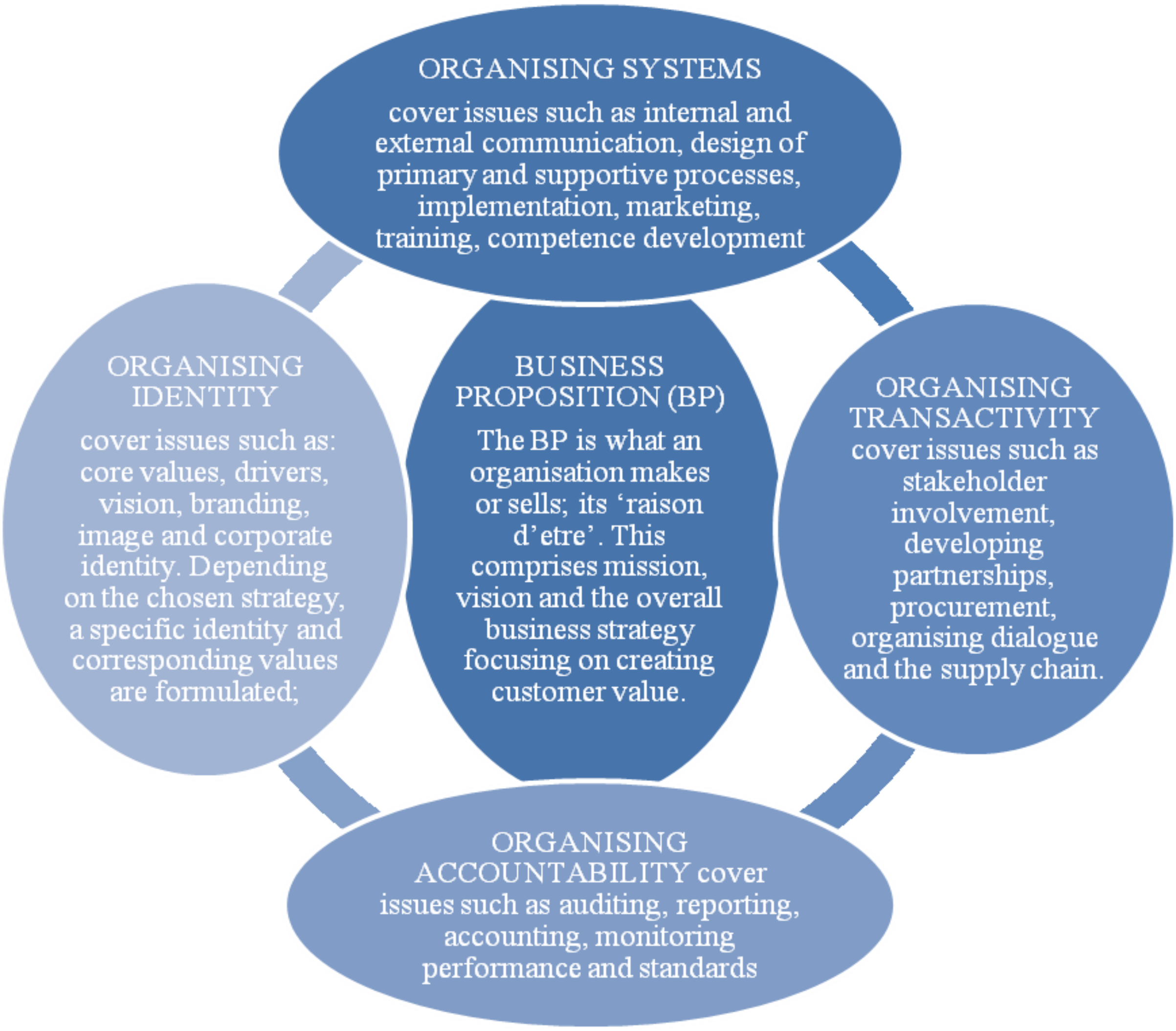
FY 2015-2016 witnessed a 28 percent growth in CSR spending in comparison to the previous year. Listed companies in India spent US$1.23 billion (Rs 83.45 billion) in various programs ranging from educational programs, skill development, social welfare, healthcare, and environment conservation. The Prime Minister's Relief Fund saw an increase of 418 percent to US$103 million (Rs 7.01 billion) in comparison to US$24.5 million (Rs 1.68 billion) in 2014-15. The education sector received the maximum funding of US$300 million (Rs 20.42 billion) followed by healthcare at US$240.88 million (Rs 16.38 billion), while programs such as child mortality, maternal health, gender equality, and social projects saw negligible spend (Corporate Social Responsibility…).





In terms of absolute spending, Reliance Industries spent the most followed by the government-owned National Thermal Power Corporation (NTPC) and Oil & Natural Gas (ONGC). Projects implemented through foundations have gone up from 99 in FY 2015 to 153 in FY 2016, with an increasing number of companies setting up their own foundations rather than working with existing non-profits to have more control over their CSR spending.2017 CSR spends further rose with corporate firms aligning their initiatives with new government programs such as Swachh Bharat (Clean India) and Digital India, in addition to education and healthcare, to foster inclusive growth.

Objective 3. To discuss the model of organizing CSR funds by the companies in India



The best CSR designs guarantee that while associations agree to enactment, their speculations likewise regard the development and improvement of underestimated networks and nature. CSR ought to likewise be economical – including exercises that an association can maintain without adversely influencing their business objectives (www.ioew.de/…).

Methodology of corporate social responsibility

CSR is the practice of assessing an organization's impact on society and evaluating their responsibilities. It begins with an evaluation of the following aspects of each business:

a) Customers.
b) Suppliers.
c) Environment.
d) Communities.
e) Employees.

The most effective CSR plans ensure that while organizations comply with legislation, their investments also respect the growth and development of marginalized communities and the environment. CSR should also be sustainable – involving activities that an organization can uphold without negatively affecting their business goals.

Organizing CSR

The CSR points of view are for the most part alluded to as the 'triple main concern' and are generally utilized in the contemporary CSR banter. 'Planet' alludes to maintainability, 'individuals' to a changing social duty and 'benefit' to the business results. Propelled in the mid 1990's by John Elkington this typology has increased far reaching acknowledgment and in that capacity has been of awesome help in bringing and situating CSR up in associations. 10 years down the line, semantically and also thoughtfully, it appears as though the 'triple main concern' has filled its need. Best case scenario, it prompts a delicate exercise in careful control proposing some sort of ideal between the p's.

As listed in the table companies follows different thematic areas in spending their CSR funds, a right strategic approach has to be followed by the organizations to fulfill the needs of the society as well as individual goals. A general model of organizing CSR was developed by the University of South Africa (UNISA) (Management Models…). This model explains the interrelationship between the aspects of CSR.

7. Data analysis

The secondary data on analysis highlights the emphasis of the selected Indian companies taken up for study on two major areas i.e. on Education and Healthcare in spending their CSR funds. Other sectors like Rural development, Slum development, Technology Development, Sports, Women Empowerment etc. are comparatively getting lesser allocation of funds. Even though Education & Health sector are the major societal concerning issues, it seems there is an imbalance of addressing the issues which are concerning the society.

8. Conclusion

Corporate sectors in India have been very sensible in taking up CSR activities and coordinating them into their business forms. It has turned out to be dynamically anticipated in the Indian corporate setting since associations have perceived that other than developing their organizations, it is likewise essential to shape dependable and supportable organizations with the network on the loose.

Organizations presently have particular divisions and groups that create particular arrangements, techniques, and objectives for their CSR projects and set separate spending plans to help them. More often than not, these projects depend on all around characterized social convictions or are precisely lined up with the organizations' business space. Though lot of work being taken up by the Indian companies in bringing a change in the lives of people through their CSR activities, there still remains a lot more work to be done in terms of compliance and demonstrating the effectiveness of such spending.

9. Contribution of the study

The current study emphasizes on answering the above questions through a conceptual research on the past studies and Governmental publications. Moreover, the current study deals with the implications of CSR in India and a model for organizing CSR which is used by companies is conferred. Practically, the current study contributed in verifying the role and importance of CSR in imparting implications of CSR in India and its importance in public sector. The findings of the current study would also be useful for the selected companies in identifying effective and efficient ways to build long lasting relationship with customers and gain a sustainable competitive advantage.

10. Limitations/future perspectives

The current study was restricted to selected companies. Adding more companies with different verticals may get some different results. Similarly, by adding more dimensions and areas of CSR can be a valuable addition for future research work. Trust used as a mediator in the current study, however can be investigated as a moderator. The data was collected from the secondary source only, however, observing management point of view through primary study would bring some new insights to the findings and may be considered for future research.

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DIGITAL PAYMENT SYSTEM FOR ECONOMIC SUSTAINABILITY. A CASE STUDY OF GUJARAT NARMADA FERTILIZERS AND CHEMICALS LTD IN INDIA

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Abstract: Digital payment system (DPS) is witnessing growth day by day, especially, in Asian and European countries. E-banking, electronic payment, cashless or less cash economy, digital economy, Digital payment system are all synonymously used to represent new technology in use. Many researchers have discussed about DPS practices leading to economic and sustainable development, its significance and challenges, factors for intention to use and adoption etc. This paper discusses implementation process of a 100% cashless township, created in India. With digitalization, one cannot rule out the ambiguity with issues like cyber security, digital identity and related policies, and hence we see people conveniently using both, cash and card system. But in India, once being tagged as fully digital village is switching back to the old all cash mode. So the much promising digital village initiatives have fallen flat.
Hence this paper presents a case of a government company, which has fostered a responsible action in subordinating governments' 'Digital India program'. In 2016, GNFC has created first 100% Cashless Township in Gujarat, India, consisting of 5000 permanent residents and 10,000 floating population and still continue to transact in digital-only form. This sustainable model has been replicated to more than 100 townships across the country and is adoptable to rural areas to enable successful 'Digital Villages'. We also discuss the sustainable impact generated to the stakeholders in the township.
We use primary data and secondary data to collect required information and use Unified Theory of Acceptance and Use of Technology (UTAUT) model to identify user adoption and acceptance factors in GNFC s digital-only mode of payment system.

Keywords: Digital payment system (DPS), GNFC 100% Cashless Township, UTAUT model, Economic sustainability.

Introduction

There is an immense shift in the mode of transactions, after the serious financial inclusiveness measures by Government of India. Many parts of India willingly or unwillingly have opted for digital payment systems. Digital payments are growing at a rapid pace. It was

2.65% of GDP in FY16 to 7% of GDP in FY18.The cash circulation is reducing day by day. It was INR 18.5 lakh crores in May 2017 and INR 7.8 lakh crores in Dec 2017 (Bhakta, 2018). Post demonetization with severe cash crunch, many villages in India has accepted to be cashless/less-cash zone. But owing to high rentals on POS machines and bank transactions, few villages in the country (Indiatimes, 2017) for instance Ibrahimpur, Ugrawai (Telangana), Dhasal (Maharashtra), Badjhiri (Bhopal), Lanura (Kashmir) chandagalu, Vondaraguppe (Karnataka) and many more are switching back to the old all cash mode. As per RBI, the cash withdrawal from ATM & POS is increasing. (Refer Table 1 and Table 2). The reasons for this change are a bunch of irritants like security and risk issues (Dhani, and Piyush, 2017), inadequate skilled managers and infrastructural deficiencies (Siyanbola, & Tunji, 2013a), cultural problems and technical problems like digital illiteracy – lack of awareness about use of apps, banks charging higher rent, fear of hidden transaction costs involved in digital mode of payment (Rani, 2015).

Despite these incidences, there are instances where people are moving with a strong determination for persuing digital mode. GNFC, township in Bharuch is the first 100% Cashless Township in India which was launched in 2016. The results are interesting as a smallest business from cobbler shops, pan shops, barber shops, flour mills to schools, malls and a temple in the township are using POS machines. Taking GNFC case, the paper finds out the sustainable model for creating cashless or less cash zones and helps to understand implementation strategy and sustainability impact of the same. By using Unified Theory of Acceptance and Use of Technology (UTAUT) model (Venkatesh et al., 2003) we discuss how GNFCs initiative has successfully transformed consumer behavior in supporting Digital India initiative.

India and Digital economy

At first, the term Digital Economy was used in Japan in 1990s. Later, in 1995 the term was used in a book by Don Tapscott – The Digital Economy: Promise and Peril in the Age of Networked Intelligence (Tapscott, 1997).

The Payment and Settlement Act, 2007 defines electronic funds transfer as – "any transfer of funds which is initiated by a person by way of instruction, authorization or order to a bank to debit or credit an account maintained with that bank through electronic means and includes point of sale transfers; automated teller machine transactions, direct deposits or withdrawal of funds, transfers initiated by telephone, internet and, card payment".

India comprises of 15% of the world population, and with a growth rate of 7 to 8%, India is set to become the second largest economy by 2030. To achieve this, the government considers the digital economy as the primary growth enabler (Team Inclusion, 2017). In order to transform India into a digitally empowered society and knowledge economy, Digital India programme was initiated, as a flagship programme of the Government of India in July 2015, Mantra is IT (Indian Talent) + IT (Information Technology) = IT (India Tomorrow) (digitalindia.gov.in/…).

„The digital economy is the new productivity platform that some experts regard as the third industrial revolution. Digital revolution, also known as 'The Internet Economy' or Internet of Everything (IoE), is expected to generate new market growth opportunities, jobs and become the biggest business opportunity of mankind in the next 30 to 40 years" (Gopalratnam, V.C., CIO, Cisco, *CIO Review, June 2015*).

As per the estimation, in India, the digital economy is expected to contribute $550 bn to $1 tr in GDP by 2025 and add 2 million jobs by 2018 (Sharma, 2018). Deloitte Report (2010) says the card payments amounts to 60% of the total digital payments and the mobile wallet industry is also rapidly growing. As per Visa & YouGov, being hyper-connected, better informed and digitally empowered, 78% of Indians are keen to accept new modes of digital payment. India's current digital economy is still in its early days, and this offers new prospects for the country innovation-driven rather than merely consumption-driven growth, and for the creation of new kinds of blue-collar jobs (Padmanaban, 2017). Electronic transactions in India have 4.73% increases than in December 2017. It has reached a record high of 1,11 bn. in January 2018 (Gupta, 2018).

Catching up with rest of the countries like Singapore, Finland, Sweden, Norway, UK etc, India stands 91st position among 139 countries in e-readiness (The Economist Intelligence Unit Report, 2010). Many big Companies in the country like ITC, HP, GNFC, INTEL and ICICI are supporting this initiative by creating cashless zones in unique ways (Refer Table 3).

1. Literature review

We observed history of DPS, its meaning and implementation factors & adoption factors for our literature review section.

History of Digital payment system

For over a decade, banks have been affected by changes associated with globalization and financial liberalization. Reacting to these changes, banks expanded the choice of services offered to the customers and increased their reliance on technology (Al-Smadi and Mohammad, 2012a). Delay in payment of cheque (Siyanbola, and Tunji, 2013b) evolution of technology, severe competition led to forced market expansion and increased electronic banking products to reduce operation cost and speed the delivery of services (Ghaziri, 1998). From the customers' point of view, electronic banking allows customers easier access to financial services and time saving in managing their finance (Al-Smadi, and Mohammad, 2012b). There is a connection between cashless banking and the economy and this shows that the introduction of the policy would improve economy as well as the profit level of business men and women (Syanbola, and Tunji, 2013c).

Meaning

Instruments like – banking cards, Unstructured supplementary Service Knowledge (USSD), Aadhaar Enabled payment system (AEPS), unified payments interface (UPI), point of sale (POS) mobile wallets, internet banking, electronic clearing system (ECS) micro ATM real time gross settlement (RTGS) mobile banking except cash is called electronic payment or cashless payment or digital payment (Roy, and Sinha, 2017). For this paper, study of mobile banking is more suitable as in the selected case, mobile banking is more popular. Mobile payments (m-payments) are increasingly being adopted as a new way of doing business in the 21st century (Dennehy, and Sammon, 2015).

Factors for Implementation and Intention to adopt

Factors influencing E-payment system, its benefits and challenges has been discussed by widely many researchers. In order to motivate customers to use e-banking, organisations must make key improvements that address the customers concerns and hence, it is necessary to understand the key factors that influence the adoption of e-banking among the customers (Al-Smadi, and Mohammad, 2012c).

Besides there are several factors that a card holder or the user considers for opting Digital payment system like Technology of payment instruments, information accessed by third parties, (Kazan, and Damsguard, 2014) ease of use, risk, security and trust, consumer awareness, convenience, availability of e-payment tools, Speed Internet Access, the consumer's experience in using, computer and their level of education the technical, protection, security statements, Government and Central Bank regulations, productivity in the transaction, easiness and flexibility in the transaction, the reason that their dear and near recommends were the factors identified and incentivizes the elements which can fillip the usage of e-payment system (Vinitha, and Shanmugam, 2017). Perceived ease of use and perceived usefulness affect the behavior and attitude towards information system (Renny et al., 2013). Cultural factors such as level of education, language and experience of the technology is very important in the adoption of new technologies (Junadi, and Sfenrianto, 2015).

By considering above literature review, we identify that the factors influencing the implementation and adoption of e-payments can be broadly grouped as below:

- Technology & Infrastructure.
- Education,Training & Awareness.
- Behavior & Attitude.
- Cultural factors.
- Online Safety & Security factors.
- Motivational factors.

Digital Payment system Technology and Economic sustainability

E-payment system Enhances value espoused by sustainable development and creates sustainable demand which in turn leads to increased, job creation, production and resultant increase in higher revenue (Oghoghomeh, and Ogbeta, 2014). For efficient use of resources, using the smart solutions for a better quality life is the main goal of sustainability development and our future cities (Batagan, 2011). Economics of payment systems around the world says that lessons drawn from developed countries highlight, how digital payments are cheaper, more efficient and ultimately more sustainable and so it could be more accessible to people, and at the same time boost revenue for financial providers (Bill, and Melinda, 2013).

2. Research Gap

It is a known fact that digitalization enables economic and sustainable development. Very few studies exist discussing about the process of implementing a sustainable model to create cashless/less cash zone. And the contribution of e-payment practices towards a sustainable development is yet to be firmly established (Tennyson, and Mercy, 2014).

3. Problem Statement

Considering the fact of technological innovations for financial inclusiveness measures ‘Digital India’ Initiative was introduced in India. Substituting the government efforts, many large companies adopted several villages to make ‘Digital Villages’. Lot of time and resources is being invested to make Digital India – a dream come true. But several villages which ones made headlines for being totally digital, is falling back by opting for cash transactions again for several reasons.

We identified that GNFC 100% Cashless Township Model is working well in this regard. Hence we present a case study explaining the implementation model, How it is planned and implemented, Who are the stakeholders, What factors are considered/favoured for the adoption of the model (using UTAUT) and what is the impact created which makes the stakeholders to continue to opt for digital payment system in GNFC s township.

4. Concept framework

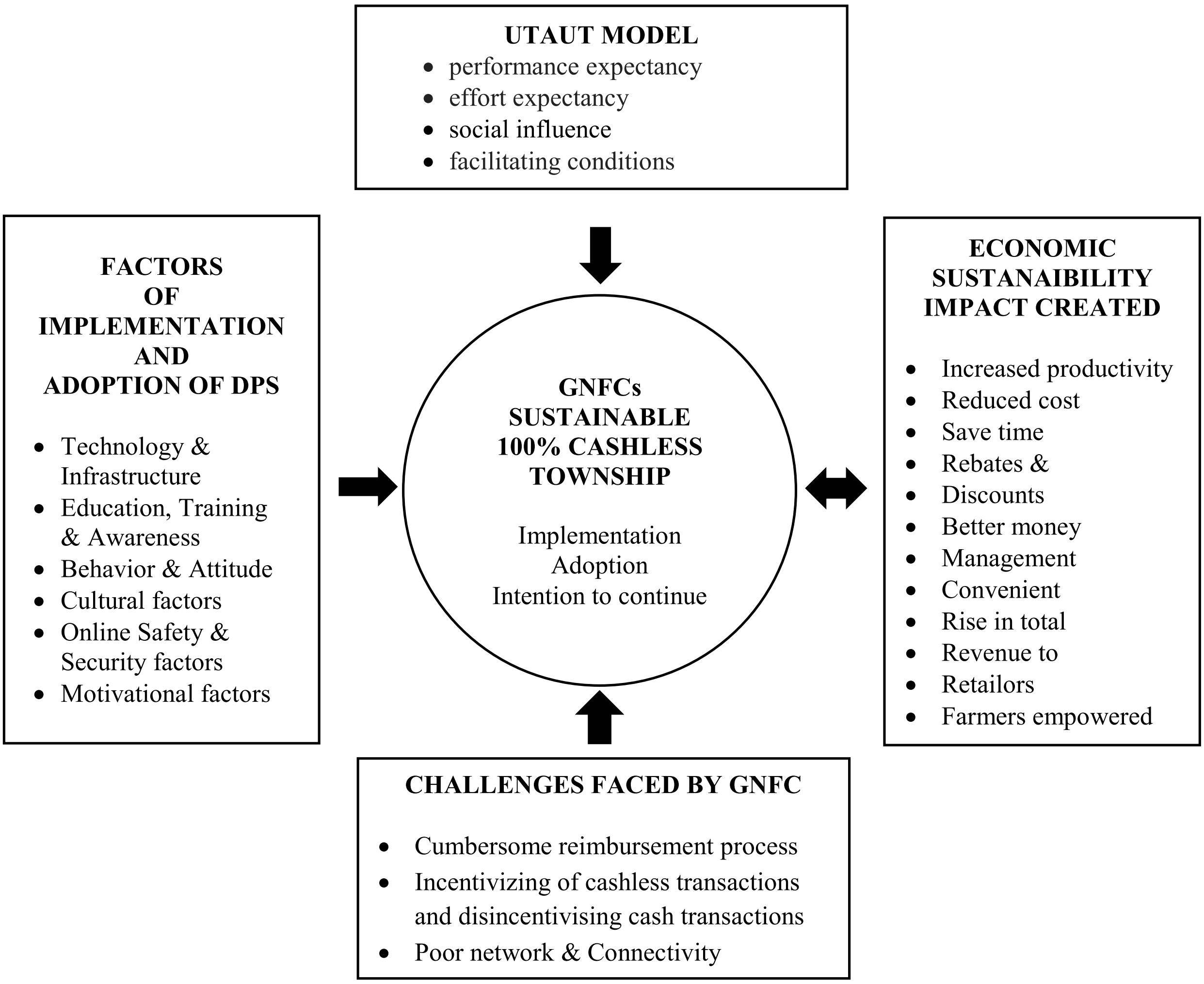

Figure 1. Factors influencing the implementation of 100% cashless township.

5. Research questions

The study was guided by the following research questions:

- Why villages are turning back to all cash mode?
- What are the factors to be considered to implement a successful 100% cashless township model and for the adoption /intention to continue the cashless system of payment?
- What is the process of GNFC Model of 100% cashless System?
- What factors of the GNFC s model led to the easy adoption and use of this technology?
- What were the challenges?
- How can DPS improve economic sustainability?

6. Objectives

1. To identify the factors involved in the implementation of e-payment system.
2. To study the implementation framework of GNFCs 100% cashless township.
3. To examine the factors that led to the easy adoption of digital payment system in GNFC Township. Using UTAUT Model.
4. To identify the challenges in implementation of GNFCs 100% cashless township.
5. To identify the impact of DPS in improving the economic sustainability in the GNFC township.

7. Methodology

Present study is a descriptive case study. Extensive literature review was undertaken inorder to find the dimensions or factors for successful implementation and adoption of Digital Payment System. Data is collected through:

1. **Primary data** is collected through telephonic interview with GNFC officials regarding implementation of 100% cashless Township and used personal observation method by attending retailors award function for highest cashless transactions at GNFC. Group discussion with 20 retailors was undertaken with unstructured questions regarding implementation process.
2. **Secondary sources** like Google Scholar, Researchgate, Government Digital India websites RBI & GNFC Company website & Doccuments, research papers, articles, reports & newspapers.

Unified Theory of Acceptance and Use of Technology (UTAUT) model

In light of importance of consumer acceptance for the adoption of digital payments, UTAUT framework indicators (Venkatesh et al, 2003) are listed below which will be considered further for the case study. The UTAUT aims to explain user intentions to use an information system and subsequent usage behavior. The theory holds that there are four key constructs:

- **Performance expectancy:** performance expectancy is defined as the degree to which using a technology will provide benefits to consumers in performing certain activities.
- **Effort expectancy:** it is the degree of ease associated with consumers' use of technology.

- **Social influence:** it is the extent to which consumers perceive that important others (e.g., family and friends) believe they should use a particular technology.
- F**acilitating conditions:** The perceptions of the resources and support available to perform a behavior.

Genesis of GNFC

Gujarat Narmada Valley Fertilizers & Chemicals (GNFC) is a jointly owned PSU by Government of Gujarat and Gujarat State Fertilizers & Chemicals Ltd. (GSFC) with business of chemicals and fertilizers and IT solutions worth INR 6000 crores. GNFC has extended its profile much beyond fertilizers through a process of horizontal integration. Chemicals, energy sector; electronics and IT form ambitious and challenging additions to its corporate portfolio. GNFC has addressed its success to its swift turnaround strategy which translated the company from loss making (INR 452 crores in 2015) to a profitable (INR 6000cr in 2018), debt-free company. As a result, GNFC is featured No. 1 PSU, in Fortune India Magazine among 50 most profitable PSUs in terms of market cap growth. Being single producer of TDI in India, GNFC has portfolio of 64% of chemicals, 34% of fertilizers and 4% of IT solutions. Besides, GNFC is known for substituting government projects through 'Neem Initiative' where lakhs of rural poor women are empowered both financially and socially. Recently GNFC has entered FMCG market with its variety of neem products, supporting 'Make in India 'goals. GNFC along with Niti Ayog[1] has pioneered to use blockchain technology in fertilizer subsidy disbursal and management. GNFC is also known for creating India's first 100% cashless Township.

It was a moment of proud for GNFC, when Prime Minister, Narendra Modiji appreciated this initiative in his Man Ki Baat radio programme. Niti Ayog certified GNFC cashless township model as 'doable' and 'replicable' across country. It can be used to prepare training modules to enable DPS. As a benchmark, under Niti Ayog, GNFCs E-Township model, has been replicated in 81 townships across pan India covering 2 lacs population amounting to 2.5 lac transactions per day. For this trailblazing efforts by GNFC, the Cashless Township Initiative received many accolades and recognitions like Prestigious Porter Prize, Golden Peacock Award for innovation, Golden Globe Tigers Award, Malaysia for excellence in cashless payment leadership, Business World Digital India Award, Skoch Order of the Merit Award, Times Networks Digital India Award (www.gnfc.in).

[1] Niti Ayog – National Institute for Transforming India – a think of Government of India.

8. Discussion – GNFCs 100% Cashless Township Model

Inspired by the needs of future digital India, Dr. Rajiv Gupta and his team embarked on this journey after demonetization policy. At first instance, the company stopped usage of cash at the organisation level .Next, the Bharuch Township which has about 5000 permanent residents and 10000 floating population every day, was converted to 100% cashless township. And all this happened with a remarkable duration of 10 days. A township is called less cash if 80% of the transactions is made digitally. It wasn't a cake walk as the township was a mix of households, retail establishments, Hospital, banks, schools & college etc with people of all ages (PWC Report, 2017a).

GNFC deftly constituted expert team within the company, did campaigning & Spreading awareness among the residents, wide training and capacity building, logistics, legal compliance and most importantly developing necessary digital infrastructure with proper cyber security were the initial steps taken by GNFC(PWC Report, 2017b).

Figure 2. 100% Cashless Township Implementation action plan of GNFC. Source: GNFC records.

8.1. Planning phase

The action plan in the planning phase included:

1. To foster efficiency, at first all the stakeholders were identified for the implementation.
2. Meetings with shop holders in the township, residents were held to generate awareness for need of Cashless Transaction and explain modality for implementation.

3. Mass appeals through handbills, word of mouth publicity and door to door help – educating ladies and children in particular for use of mobile applications and credit/debit card, on line banking system was held.
4. Digital literacy campaign was done in 45 interactive sessions.
5. Regular Progress review and reporting was crucial part of planning actions.

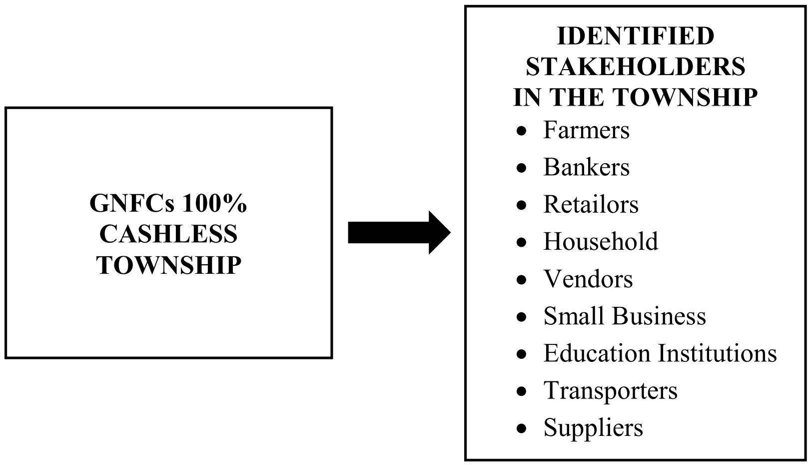

Figure 3. Identified stakeholders in the township.

8.2. Constituting a team of experts

As for a team, GNFC has an apex body constituting MD, Dr. Rajiv Kumar Gupta as the chairman, along with heads of IT, Finance, Administration and a head for the task force. The task force included 6 teams under the apex body i.e. a survey team, a Campaign team, a training team, a handholding & monitoring team, a MIS & Control team, an implementing team consisting of engineers, township supervisors, and trainers in each team.

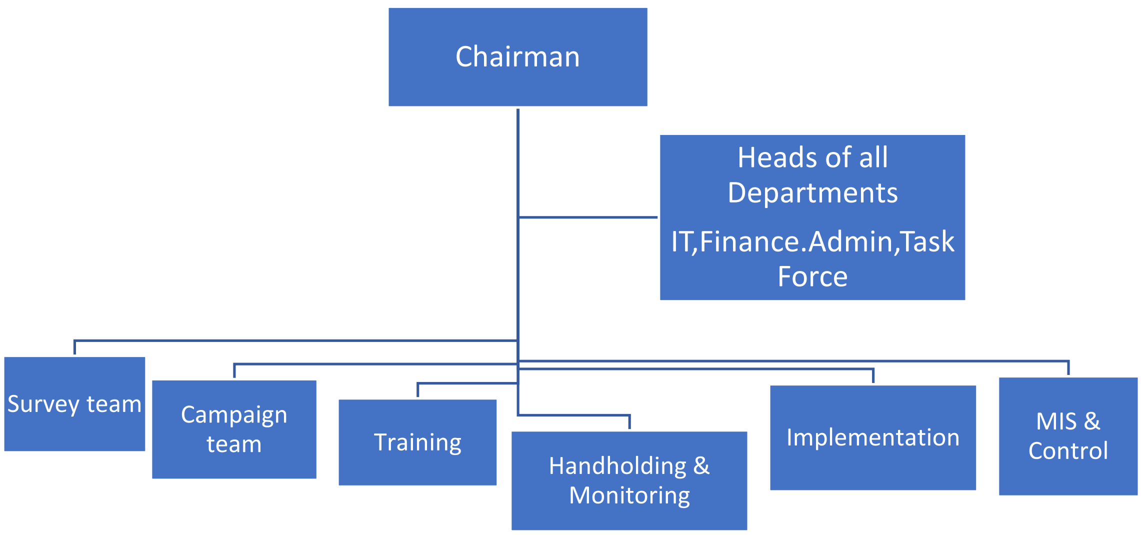

Figure 4. The Organisation structure in GNFC to implement 100% cashless Township model.
Source: own work.

Within few days of demonetization, GNFC took a major decision to be 100% Digital Company. Not just for selling fertilizers but for every facet of the GNFC transactions, be it fertilizer retailers, townships, farmers or payouts to GNFC vendors all done in cashless mode. It was a landmark decision in the history of GNFC and required unprecedented amount of coordinated efforts and teamwork to realize this objective. GNFC had to necessitate revamping of entire supply chain, modifying payment cycles, doing last mile connectivity, managing vendors, procuring and distributing POS machines and other hardware to retailers. Business process re-engineering was undertaken. The process included issuing and understanding the guidelines and directives, identification of impacted business rules, amendment in accounting procedures, validation and cross-verification, renegotiating arrangements with banks, and underwriting risks of buyers and sellers. It then embarked on assessing on-ground challenges and a step by step planning of addressing these challenges. The GNFC team and (n) Code (IT team) collaborated closely to bring their respective strengths of business understanding and strong grasp on IT infrastructures and procedures of e-economy.

8.3. Mass Campaigning and spreading awareness

An initial solid base-line survey was established to know the availability of technological resources for implementing a cashless regime. This was followed by gap analysis of the infrastructure required to roll out the same. Various stakeholders viz. resellers/retailers and consumers of all category such as housewives, children, labourers and casual workers (who do very small value but large number of transactions a day), were presented with options and possibilities.

Large hoardings were put up in public places like factory,office,schools and colleges and at all retail outlets. Awareness was given on the various incentives available through government like 'Lucky Grahak Yojana' and 'Digi dhan vyapar Yojana' where customers and merchants using digital payments are eligible for winning daily and weekly lucky draw prizes.

One of the factors of adoption as identified is safety and security factor. While implementing, GNFC took the stakeholders views on adoption of digital economy through ground survey with a targeted focus on their fears, concerns and on perceived risks. This shows the synchronization of the GNFC cashless township model with adoption factor Safety and security to evade future risks.

8.4. Training and capacity building

Mass contact programmes were held about 100% cashless township and tailored training sessions were conducted separately to housewives, children at schools and colleges. A detailed training was provided to retailors regarding modes of cashless transactions cost of transactions, discount schemes, handling accounts etc. Further, based on interactions and feedbacks necessary tips were provided by concerned team.

After the consultation with stakeholders with detailed analysis and resolution to all potential problems which yielded trust and confidence from the retailers and consumers, GNFC took to a modest beginning**.** Here we identify the positive change in the factor of behavior and attitude of township people towards the adoption of new technology.

The training and facilities provided by GNFC has been reported as easy to use and clear and understandable so that even the smallest business like pan shops, barber, vegetable shops are using digital modes. This is in par with the effort expectancy of UTAT model.

GNFC trained 22,000 ITI students as 'Digital Trainers', with the mantra 'Each 1 teach 5', and they enabled farmers to be digitally literate. GNFC's women group did on a door-to-door campaign to teach about digital transactions.

8.5. Infrastructure development

The GNFC team conducted a study and found that an employee had an average of 3 transactions per day in canteen. And a single household had 5 transactions per day. A cross functional taskforce was setup to evaluate and work through the myriad of tabled issues that recommended deployment of multiple payment options and the crucial business process re-engineering in the way accounts and audit would accept the receipts of money against sales. Multiple engagements at various forms, with different interest groups were conducted extensively over a 10 day period, while technical team was working alongside in setting up the required infrastructure, renegotiating contracts with banks and other stakeholders on the operations side of the program. Action plan adopted included:

1. First of all, it was ensured that every household member have at least two e-wallet apps.
2. All outlets were made compulsory to accept payments by at least three modes
3. Around 500 Trucks/Tankers/Vehicles have been mandated to use Fast tag/Debit Card for payment of toll tax. Around 1.8 lac trucks trips were cashless transactions last year.
4. Entire shopping arcade was made Wi-Fi enabled.
5. Issuance of M-Swipe, PoS machines to shop owners, shopping center, school, canteens, hospital, sports complex, guest house and other establishments with Finger Print Scanner & Printer for AEPS with proper registration meeting KYC norms.
6. The team helped everyone in the township to have their bank accounts including visitors & service providers to the township and also ensured people had smart mobile phone with data plan.
7. E-Wallet application installed in 3,645 mobile phones. Around 500 students trained for installation of e-wallet app.

GNFC set up an 18-hour operational vernacular voice call center to support and resolve queries and problems faced by stakeholders. With this the facilitating conditions required as per UTAT Model, were met by GNFC.

8.6. MIS & Controlling

Dr. Gupta had daily progress reviews and meetings where major decisions were taken including providing additional comfort to the stakeholders. There were few challenges in banking, telecom and IT infrastructure to sudden spurt in volumes. The main action points were:

1. Putting up help-desk and cashless monitoring cell right at shopping arcade to sort out technical problems.
2. Meetings with various banks and mobile companies to make digital system more users friendly.
3. Adopting multi-pronged approach and formation of dedicated teams to address the issues.
4. There was online real-time problem solving facility made.
5. User-retailor tracking system, ZETA cards were facilitated.
6. Repeated trainings were conducted.

Data were collected from MIS about number of cashless transactions – all payments and receipts within the township, details of volume and types of transactions in the township etc.

Impact on economic sustainability

Setting up the basic necessities was at one hand and at the ground level more than all, influencing the behavior of the target people was the biggest challenge for GNFC as paying digitally has to become a habit intentionally and mindfully. (PWC Report , 2017c)

A third party assessment was made on percentage of cashless transactions. Since the cashless transactions were more than 80% of the transactions, GNFC was declared to be first 100% cashless township in India (Refer Fig. 5). The farmers enjoyed varied discounts on cashless transactions. GNFC provided rebate of 15% and 10% for farmers and retailers. Retailors are awarded for making highest e-payment transactions. Based on this we can say that the farmers were got Hedonic Motivation which made them to pursue DPS.An impact study conducted by PWC (2017d) said, GNFCs Cashless Initiatives led to socio-economic development and sustainability .The high impact results were as follows:

- 96% of farmers to reduce cost of travel to fertilizer shops.
- 90% of the farmers were more empowered, cost savings with better money management.
- 92% of households felt it as more convenient and time saving form of transaction and effective tool for parents to have a better control over their child's expenses.
- 87% of retailers reported a raise in total revenue and the cash handling system improved for the company as a whole.
- Vendors, retailers, suppliers, transporters, etc. also empowered to adopt cashless system.

- Going cashless has forced small businesses to avail of the benefits like increased revenue and profitability, better customer profiling, targeted marketing, increased market share and geographic reach due to e-Commerce and m-Commerce.
- More than one fourth of the cashless transactions were done by people with over 50 years of age while women accounted for 40% of cashless transactions

As per PWC report, the digital payment system adopted in GNFC Township has been conveniently useful to the people in their daily life, increase productivity and economic conditions, reduced cost and help save time leading to sustainability of the is model. This satisfies is the Performance Expectancy mentioned in the UTAT Model.

Cashless transactions brought about more confident and empowered farmer with a sense of pride in his/her cashless lifestyle. Many also reported reduced stress and healthier life as they became better money managers and has accepted it as a culture and lifestyle. This Social Influence or the Social Change on the stakeholders contributed to the intention to continue DPS.

Though offering free-bies, cash backs and value deals is industry wide practice to engross new people, it can't be a sustained source of increasing cashless transactions. With Inadequate marketing and promotions, narrowing discounts the number of cashless transactions will reduce. GNFC has opted to be continuously innovating in marketing, incentivizing, and pushing cashless living as a lifestyle mantra to all the stakeholders until people get used to living a cashless life and then it to become difficult for them to turn back to cash transactions (www.gnfc.in/cashless…). Following a digital system in company's every transaction; "GNFC has sold more than 3.5 million bags of fertilizers without using cash" said Dr. Rajiv Kumar Gupta, Former MD, GNFC, Interview 26th July 2018, CEO Magazine.

Challenges Faced

- Fertilizer retailers found reimbursement process to be cumbersome – retailers were happy; however they vouched for an easy and efficient reimbursement process for reclaiming discounts given to farmers.
- Cashless is dis-incentivized as transaction charges needs to be paid. On the other hand cash is incentivized, as there are not extra charges levied on retailers. With this retailers might not be encouraged to do more of cashless transactions.
- Issues with POS transactions – network & connectivity issues and not receiving SMS.

9. Future Research

Future research can be carried out to know how exactly this model works in rural areas. One can also find out how use of an effective technology makes way for economic sustainability. This model can also be tested and tried in upcoming smart cities.

10. Concluding thoughts

The new technology innovations like Radio frequency Identification (RFID), Near Field Communication (NFC), Block chain technology should be encouraged to address transparency and security issues as the country needs to move away from cash-based towards a cashless (electronic) payment system (Das and Agarwal, 2010). This is just a beginning of a new era and the cashless initiatives, if implemented with strategic approach, can lead to far reaching positive changes in society and business at large. To promote digital payments, till now GNFC has provided training and handholding of 140 other townships across India (www.gnfc.in/PM…). GNFCs 100% Cashless Township model imbibes and is in sync with all factors necessary to accept and use the Digi payments technology leading to economic sustainability and social transformation.

Table 1.
Debit card swiped in ATM

Month, 2018	Volume (M) of transactions	Value (INR Lakh CR)
Jan	741.5	2.49
Feb	718.2	2.47
March	774.9	2.66
April	758.9 (15% up)[2]	2.64

Note: ET, 20^{Th} June, 2018, .p 4.

Table 2.
Debit card swiped on POS

Month, 2018	Volume of transactions (M)	Value (INR CR)
Jan	298.5	40761
Feb	282	37037
March	318.9	41857
April	333.7	45457

Source: ET, 20^{TH} June, 2018, p. 4.

Table 3.
Examples of 'Digital India' Initiatives of Indian Companies

Sl.No.	Company Name	Initiative to go cashless	Year	Output	Status of the Project
1	ITC Ltd.	ITC E-Choupal	2008	23 E-Choupal Saagars established. It offeres1% discount on all cashless purchases creating awareness through sms, camps.	Partners with others to promote a digital mind set through ChoupalHaats (rural marketplaces), Launch of E-Choupal 0.4 in, 2018
2	TATA trust and Google India	Internet Saathi	2015, July	Provides digital literacy to 26,000 villages	Have expanded to cover 200 millions

[2] Niti Ayog – National Institute for Transforming India – a think of Government of India.

cont. table 3.

3	ICICI Bank	ICICI Digital villages	2016, November	100 villages completely digitalized in 100 days	Adding 500 villages to the digital networking by December, 2017
4	SBI State Bank Of India	Housing colony & a village	2016	As a pilot project, a village was converted cashless within 30 days, A housing colony with 1000 residents was converted to cashless	SBI Unnathi card
5	GNFC Gujarat Narmada Fertilizer & Chemicals	Bharuch Cashless Township	2017	Township of 5000 population with 10000 floating population has become cashless in 38 days	Replication of the model in 180 integrated townships across the state with a total population of over 5 lakh.
6	HP Hewlett Packard	Centre for excellence	2017, March	Showcases locally developed solutions that have potential to transform.	Existing
7	Coco-Cola & SBI		2017, January	Skilling and training 2.6 million retailers and 5000 distributors to conduct business transactions digitally	Existing
8	Larsen & Turbo Finance	Digital Sakhi	2017, June	Skilling rural women in 32 villages in Maharashtra	Expansion to 100 000 villagers

Note: Adapted from: "changing phase of financial landscape through cashless rural economy: an insight" by Meghana, K. (2017). ISBN-978-93-83302-25-3. Paper presented in International Conference on Emerging Trends in Finance, Accounting and Banking, Mysore.

Table 4.

Top 10 Townships – summary of Cashless Transactions – April 2017 (GNFCs Model replicated by Niti Ayog & GNFC)

Serial No.	Township Name where Cashless Model was Adopted under the guidance of GNFC	Number of Cashless Transactions
1	Reliance Refineries, Jamnagar	69,50,604
2	BHEL, Trichi	57,36,480
3	Larsen & Toubro, Hazira	35,22,535
4	Atul, Valsad	28,45,645
5	Welspun Anjar, Kutch	2840095
6	Adani Ports & Special Economic Zone Limited (APSEZ), Mundra	23,81,699
7	IPCL, Vadodara	23,12,056
8	BHEL, Haridwar	22,94,697
9	Gujarat Guardian, Bharuch	19,52,465
10	J K Paper Mills, Songadh	17,98,164

Note: GNFC Records.

Figure 5. Volume and type of cashless transactions in GNFC Township. Source: GNFC records

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IN THE SEARCH FOR AN ENVIRONMENTAL STRATEGY MODEL FOR THE COMPANY – *CASE STUDY*

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Abstract: The purpose of the article is to identify and assess environmental practice implementations focusing on the environmental strategy as a model. Available references provide scarce information on the very existence of business practices which enforce organizational changes and introduce model strategic behaviors of the company towards the natural environment, which is indicative of a cognitive loophole. The study provides authorial proposals of an environmental strategy as a model. A case study was carried out as part of the project, and its results have led to a conclusion that the implementation of environmental practices is not a one-time act, but rather an evolutionary process which takes place in stages, sequences. Furthermore, as a model of environmental practices, the strategy is developed through evolution, proceeding in a sequential manner.

Keywords: company, strategy, model, the natural environment.

Introduction

Ecological problems "did not fit" within the strategic management models developed by companies, and were therefore treated as a non-business or additional issue (Leśniak-Łebkowska, 2008, p. 196). This situation has changed and companies have started to include ecological objectives in their general and functional strategies. The strategies which refer to the natural environment (environmental strategies) are generally included in the companies' sustainable development strategies. They are usually construed as functional strategies (Ingaldi, Ociepa-Kubicka, Seroka-Stolka, 2016, p. 101). More recently, functional strategies have been recurrently placed on a par with general strategiers (Krupski, Niemczyk, Stańczyk-Hugiet, 2008, pp. 100-101), and can therefore set the directions for future business initiatives. They can be also allocated within CSR strategies (Skowron-Grabowska, Tomski, Dunay, & Illes, 2016, pp. 7-16).

Available references specify three types of strategies which apply different models and their concepts. One of these business strategy concepts is the assumption that it is founded on a repeatable and coherent pattern of conduct which "regulates the decisions and activities of the company" (Obłój, Obłój 2006, pp. 9-12). This concept also applies to the formulation of business strategies pertaining to the natural environment (environmentally-friendly practices) which affect the strategic change of the company. What is important in explaining strategic change is determining whether there are any company practices which cause the change, and if yes, then what are the practices (routines) which determine organizational change and produce the company's strategic behavior patterns relative to the natural environment? Considering the cognitive loophole identified, the purpose of the article is to identify and assess environmentally-friendly practices applicable to the description of the environmental strategy pattern based on the examined company X (*case study*).

1. Pattern of strategic behaviors pertaining to the natural environment

In the evolutionary perspective, strategic problems derive from H. Mintzberger's and J. Quinn's works. In the opinion of these authors, a strategy is shaped under the influence of external factors and changes in an evolutionary manner under the influence of exogenous impulses (Mintzberg, 1994, Quinn, 1980). It is therefore an evolutionary reaction to changing conditions in the environment. It develops and emerges incrementally in time in a progressive, successive or sequential manner. In practice, this strategy is a combination of emergency plans and changes (Stańczyk-Hugiet, 2013, p. 101).

One of the basic mechanisms of the evolutionary theory of organization is organizational routine. The notion of "routine" applied in a broad context. According to the definition coined by the authors of organizational routine, as referred to by Nelson and Winter (1982), routine can refer to a repeating activity pattern recurring throughout the organization, or to a single skill. "The organizational skill of a single person is an analogy to organizational routine" (Nelson, Winter, 1982). Organizational routines are construed as rules, procedures, behavioral patterns throughout the organization, as well as programs or practices. Routines are to serve the mitigation of conflict and, in evolutionary theory, they "play the role of genes in organization" (Stańczyk-Hugiet, Piórkowska, Stańczyk, 2016, pp. 7-15).

According to M. Kuraś, routines take formalized (provisions) and non-formalized forms, i.e. comprise non-transcribed, repeatable behavioral patterns. Routines emerge in a company as a result of organizational learning, mimicking the routines adopted by other organizations (companies) and as a result of adaptation to the environment (Kuraś, 2008, pp. 9-17). J. Strużyna thinks that they are more than mere repeatable business behaviors. He emphasizes that encoded behaviors affect the future approach of companies to non-routine problems. Furthremore, these "programs" can be construed differently by authors. In the opinion of J. Strużyna, the notion of "routine" should not be leveled with conformity with standards. Nonetheless, routines are a response to standards (Strużyna, 2013, p. 30).

With reference to Nelson and Winter's publications (1982), changes to organization of a company are brought by innovative measures which change the technical and organizational routines applied by companies predominantly in a given industry (Nelson, Winter, 1982). In this context, routines are defined to resemble practices, which are key to including environment protection processes in business strategies. In the next part of the article, these routines will be treated similarly to environmentally-friendly practices (good environmental practices).

Environmental business practice described as a pattern of environmental practices can be found in the works of I. henriques and P. Sadorsky. These authors approach environmental strategy as a changing model of environmental practices changing in time as a result of a change of the management's perceptions of stakeholders' expectations, construed as an external force. Environmental practices become apparent in the context of a change caused by pressures of the environment (external stakeholders) as well as pressures from the members of the organization, in charge of taking pro-ecological measures (Table 1).

Table 1.
Evolving environmental practice model

Type of environmental strategy	Environmental practices
Passive	lack of support and involvement from upper management
	environmental management is not necessary
	lack of environmental reporting
	lack of environmental training for employees and lack of commitment
Defensive	selective involvement of upper management
	environmental measures taken when necessary only
	observance of selected environmental regulations only
	small involvement of employees in environmental measures, low level of environmental trainings
Adaptive	partial involvement of upper management
	environmental management is worth the commitment
	internal reporting present, low level of external reporting
	some employees are trained and committed to environmental issues
Proactive	the upper management supports and fully participates in environmental measures
	environmental management is an important business function
	internal and external reporting
	employees are trained and their commitment is supported by the upper management

Source: Own study on the basis of: Henriques, Sadorsky, 1999, pp. 87-99.

In this typology of environmental strategies, their scope increases in an incremental manner relative to the natural environment. The differentiation of practices entails the multiplication of elements to induce a change in the strategic reaction from passive to proactive. Nonetheless, the absence of reaction (passivity) can be recognized as the absence of business strategy towards the natural environment. In the face of tightening environmental requirements posed by the surroundings, these practices must be perfected to maintain at least "temporary" competitive advantage. The differentiation of environmental practices has resulted in a change – or evolution – of the environmental strategy model, adapting it to the surroundings. This evolution is related to a change in the state, i.e. from homogeneity to heterogeneity. *We can therefore conclude that the differentiation of environmental practices to include more environmentally-friendly patterns is also an evolutionary mechanism of the environmental strategy of companies.*

This strategy can be a part of the model and the other way round (Nogalski, 2009). Assuming that this model can determine the focus of the strategy, available references provide a model for the proactive environmental approach adopted in companies. This model integrates environmental practices into a single pattern: the practices of planning and organizing the system of environmental management, practices of communication with the environment and operational practices (González-Benito, González-Benito, 2006, p. 91). In this approach, an environmental strategy can be construed as a cohesive model of (consciously) implemented practices (or routines) which regulates the decisions and activities of the company in relation to environment protection. Planning and organization practices refer to the most routine behaviors according to the provisions of ISO 14001: 2015, whereas organizational practices refer to changes limiting the impact of products and processes on the natural environment. The purpose of operational practices is to develop and implement ecologically-conscious production and operational processes (e.g. eco-design). Based on this model, environmental strategy can be defined as a cohesive pattern of environmental practices which refer to three dimensions: planning and organization of environmental practices, communication with the surroundings and operational (process and product) practices. However, the pattern of practices can differ in terms of the type and strength of practice implementation, as well as the outcomes, depending on the reaction of the company on the environment.

Based on domestic literature, environmental strategies can be classified in terms of their market appeal and the degree of technological activity of the company relative to the market, i.e. into (Penc, 1995, p. 172):

- preservative (reactive) strategy – when the company adapts to the observance of necessary and minimum laws, systems of orders and bans regulating the use of the environment and the use of the "end-of-pipe" technology,
- technological strategy – primarily concerning technological changes aiming at developing "clean" technologies minimizing the impact on the environment, although it can also be construed as both the innovative and defensive strategy,
- planning (offensive, proactive) strategy – focused on preventing the production of contaminations and minimizing them through the implementation of "clean" technologies, development of eco-products, pro-ecological organizational structure and management style, pro-ecological marketing and ecological organization culture.

In this approach, a change of the environmental strategy model starts from the company's observance of the basic statutory requirements regarding environment protection and production control in terms of environmental requirements (reactive response) through gradual popularization of new, environmentally-friendly process, product and organizational measures. Based on this typology, a change in the reaction of the company from a passive to a proactive one involves the company's adaptation to the requirements of the legal, market or technological environment. This approach to environmental strategy is similar to the typology of strategies coined by Miles and Snow. To fulfill all applicable requirements related to environment protection, a company conditions its behaviors on finding the solution to three problems: administrative, entrepreneurial and technological (engineering) (Martins et. al., 2014, p. 22). Therefore, the objective consisting in the adaptation of environmental strategy is dynamic in character. In conclusion, in the dynamic approach, environmental strategy is *a cohesive pattern of environmental practices, the implementation of which is not forced solely by environment protection regulations, and which complies with pre-determined ecological objectives of a company, ones that refer to three strategic dimensions: the administrative, entrepreneurial and technological dimension.*

2. Research method and material

In pursuing the objective, I have completed a *case study* based on the application of various research tools, including: an interview and observation. Standardized, non-structuralized interview (anthropological or ethnographic interview is classified as non-standardized and non-structuralized interview) was applied in the qualitative study (Kostera, 2003, p. 24). Interpretation of results is a recurring issue for qualitative studies. They are representative in the statistical sense, which is why they cannot serve as the basis for generalizations. A much smaller number of cases is what distinguishes qualitative studies. In these conditions, arbitrary selection is necessary. The final selection of cases is a particular challenge for the researcher, as the majority of *case studies* can be focused on explaining the features of a larger population (Seawright, Gerring, 2008, pp. 294-308). To fulfill the requirements and criteria for these studies, the company was selected arbitrarily, adequately to its attainability and the willingness to take part in the study. Company X was selected on the basis of the type of environmental strategy adopted and the impact of its industry on the natural environment (Seroka-Stolka, 2017, p. 236). Due to the character of the data obtained from company X, which could affect its functioning, and a condition imposed by the company, the case studied was presented anonymously. Its highest-ranking manager was asked to assess an authorial set of environmental practices (Seroka-Stolka, 2017, p. 269) as part of a standardized interview.

As study was also carried out for a large Polish join-stock company from the food industry. The company has implemented an environmental management system according to ISO 14001. The company manufactures and distributes a product (a commodity) and operates on numerous international markets. The market of company X products is very dynamic. The overall strategy of the company is based on innovation and product offer modeling to adapt it to growing consumer needs. The purpose of the company is to responsibly launch products on the market.

The company is governed by specific marketing requirements which are based on effective laws and regulations, as well as its internal by-laws. As a leader in Poland, the company creates trends, leads in the industry, maintaining a quantitative share on the market of 21.1% (data for 2015).

3. Results

An assessment of environmental practices applied in company was carried out on the basis of the interview by a top-ranking manager in charge of water, energy and carbon dioxide emission management. Environmental practices were grouped according to the following dimensions: planning and organization, open communication practices, support of practices by top management and operational practices. The last dimension of environmental practices was isolated thanks to its importance to stimulating strategic changes and forcing management to implement environmental practices. Assessment of practices was carried out according to a 5-star Likert scale.

Among the analyzed environmental practices, the “support of environmental practices” dimension of top management operations is key for commencing the process of environmental strategy change and implementation. This dimension includes such practices as: “involvement of management in the process of implementing environmental practices”, which is specified in the partial and annual objectives, as well as “motivation and involvement of employees in the implementation of environmental practices”. Various models of motivating employees are applied in company X. Stimulating employees to employing innovative thinking is the most difficult practice to implement. At the same time, the latter practice is not common to company X. However, the “support of practices” dimension is necessary for initiating the process of transformation and implementation of an environmental strategy developed by company X. This type of practices is characteristic for the first stage of environmental strategy implementation.

The second group of environmental practices includes open communication with external and internal stakeholders which were implemented in the second stage. Practices involving communication with the environment are the result of pressures from external stakeholders and the will to promote the company. These practices include regular environmental reporting (minimum once a year) about all pro-ecological measures taken. Company shareholders are particularly interested in these environmental reports and the results of environmental practices. In company X, employees are regularly informed of emerging pro-ecological problems. They are however much more often informed of the positive outcomes of new projects, to positively reinforce their commitment to pro-ecological measures. Company X implemented open communication practices in the second stage.

The third group of practices comprise planning and organization. Company X is in the progress of implementing them. This third stage of implementation has not been completed yet by company X (as of March 2017). The highest-assessed practices employed by company X include: “treatment of environment protection as a priority in the general strategy”, “measures to surpass environment protection laws”, and “delegation of responsibility to functional personnel in the search for methods to improve the ecological efficiency of the company” and “delegation of responsibility to interfunctional teams making decisions pertaining to the natural environment”. Team work is a means to improve the ecological efficiency of company X and to improve the process of making decisions and resolving problems related to environment protection. Planning and organization practices streamline the process of establishing continuous improvements and systematically controlling a satisfactory level of completions of environmental objectives. They order all processes involving management of the natural environment. Team work is a manifestation of the proactive approach.

The fourth dimension of practices includes operational practices contributing to changes in production and operations which help limit the negative impact of company X on the natural environment. Practices involving control and restriction of consumption of materials, energy and water in production processes in favor of innovative solutions were graded the highest. This is however a manifestation of practices that are characteristic for the reactive pattern related to end-of-pipe control measures. The company stressed the importance of technologies aiming at minimizing the impact of processes on the natural environment and their growing importance after 2020 due to the growing requirements of the *“Europe 2020” strategy*. Practices devoted to designing an environmentally-friendly product are still under preparation due to difficulties related to the impact of company X on the consumer market, e.g. in terms of environmentally-friendly packaging (the product is a commodity).

In conclusion, an evaluation of environmental practices indicated that company X has gradually implemented practices in individual dimensions. Stage one of implementation of environmental practices requires full support and commitment from the management. In stage two, company X practices open communication with the stakeholders, since external stakeholders exert pressures to implement pro-ecological measures. In stage three, company X plans and organizes the implementation of environmental practices, and in the last stage – the company proceeds to implementing environmentally-friendly operational practices.

In establishing a matrix for assessing the pre-determined environmental priorities, a company can monitor and gradually implement environmental practices in their individual dimensions, starting with observing the minimum requirements (reactive strategy) and ending with leadership (proactive strategy). The results of evaluation of practices in the subject company X are presented in table 2.

Table 2.
Evaluation of environmental practices in the studied company

Environmental practices	Dimension of environmental practices	Implementation stage in the subject dimension	Assessment of individual practices from 1 to 5*
We treat environment protection as a priority in the general strategy	**Planning and organization of environmental practices**	No. 3**	5
We have clearly defined long-term environmental objectives			4
We take measures "in excess" of the basic environmental laws			5
We integrate environmental practices into the general strategy			4
We delegate responsibility to functional teams searching for means to improve the company's ecological efficiency			5
We delegate responsibility for environmental issues to interfunctional teams making decisions concerning the natural environment			5
We organize regular training sessions to broaden ecological knowledge and awareness of the employees			3
We conduct regular seminars to broaden the ecological knowledge of the management/company owners on voluntary pro-ecological solutions			3
We conduct regular seminars to broaden the knowledge of the management/company owners on the application of "clean" environmental technologies in equipment and procedures			2
We conduct regular trainings to perfect the organizational skills of the management/company owners pertaining to the implementation of environmental practices			4
We regularly inform internal stakeholders (shareholders and owners) about the pro-ecological measures taken	**Open communication practices**	No. 2	4 (min 1 x year)
We regularly inform external stakeholders of any pro-ecological measures taken by the company			4 (min 1 x year)
We regularly inform employees about emerging pro-ecological problems			4 (min 1 x year)
The management is fully committed to implementing environmental practices	**Top management's support of environmental practices**	No. 1.	4
The management motivates and involves the employees in the process of implementing environmental practices			4
The management stimulates the employees to employ innovative thinking			3
We apply technologies to minimize the impact of our products on the natural environment	**Operational practices**	No. 4	3
We apply technologies to minimize the impact of our processes on the natural environment			4
We systematically control and limit the consumption of raw materials, energy and water in production processes, in favor of innovative solutions			5

* Select one of five values on a scale from 1 to 5 where: 5 means "totally agree" and 1 means "totally disagree".
** The stage is in the progress of implementation of environmental practices in company X. Source: own study on the basis of an interview (standardized) conducted in company X.

4. Discussion

The evolutionary (progressive) approach to environmental management strategy has gained momentum, as exemplified in pertinent literature (Azzone et al., 1997, pp. 478-571; Garcés-Ayerbe et al., 2016, pp. 1118-1134). This evolutional approach to strategy emphasizes the adaptive character of strategy and competitive advantage (Stańczyk-Hugiet, 2013, p. 117). Based on an analysis of a case study, Post and Altman (1994) determined that there is a transformative model of organizational change that includes three stages: the adaptation stage (oriented at establishing conformity with laws and regulations), anticipation stage (practices "surpassing the law") and the stage of implementation of innovative practices which limit impact on the natural environment (Post, Altman, 1994, pp. 64-81). The complexity of environmental practices employed stands for better adaptation to the environment. Little is however known about the order of practice implementation and whether this has any importance to the completion of the overall environmental strategy.

Some reports claim that companies tend to focus on practices involving the perfection of production processes implemented at medium intensity first, only to proceed to management practices implemented at higher intensity later. The ultimate change is made in products and supply chains, superseding old solutions with more environmentally-friendly ones. What is noteworthy is that this practice implementation sequence is usually a continuum of strategic change, with reactive and proactive practices on both extremes. Researchers claim that another dimension of eco-innovative practices should be also introduced. This model is however characteristic to innovative strategies (Garcés-Ayerbe et al., 2016, pp. 1118-1134).

According to J. Murillo-Luna et al. (2007), each environmental strategy pattern is a unique configuration of environmental (ecological) objectives and the allocation of internal resources, all adapted to ambient requirements. Researchers discern four models of environmental strategy, from passive to proactive, which has been evolving under the influence of changes occurring in the environment by adapting to the current requirements and to the requirements of the new strategy (Murillo-Luna et at., 2007, pp. 35-46).

The implementation of increasingly advanced (complex) environmental practices is indicative of a passage from environmental practices which are less adapted to the environment to ones that are more adapted. As a pattern of environmental practices, a strategy can be evolutionary, proceeding sequentially or successively in time.

5. Summary

The case study indicated that an environmental strategy pattern can comprise environmental practices: in planning and organization, open communication, management's support of practices and operational practices. In each of the studied dimensions, environmental practices were implemented successively (sequentially). The result described above points to a conclusion that, as an environmental practice pattern, a strategy can develop in an evolutionary, sequential manner in time. It is noteworthy that this sequential character of practice implementation can take place in a specific phase of the said evolution. The dominant forces affecting an environmental strategy include: management's support and growing pressures from external stakeholders. As a pattern, strategy tends to change the more adapted to the environment it gets, and its implementation must be supported by full commitment from top management. Implemented sequentially, good environmental practices (environmentally-friendly practices) help companies adapt their environmental strategies to growing requirements pertaining to environment protection. It must be noted, however, that the endeavors made by a company in the individual dimensions of the environmental strategy can vary significantly, which can impact the outcomes of the strategy.

It is therefore justified to look at the diversification of good environmental practices from the point of view of how they are affected by external forces and variables which moderate this impact in the search for these practices, which determine the forces which change the models of strategic reactions of companies in the point where they converge to form the future direction of quantitative studies.

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AUTOMATION & ARTIFICIAL INTELLIGENCE – BOON OR BANE: A HUMANISTIC PERSPECTIVE

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Abstract: The role of Artificial Intelligence and Automation has evolved dramatically and exponentially in recent times and there is a great deal of debate on the impact of this on society in general. This paper essentially presents perspectives to examine the role of Artificial Intelligence and it's economic and social impact to assess the effects of the growth of this technology on the human race and also examine the various opportunities and challenges that Artificial Intelligence could bring about. The paper attempts to study the impact of Artificial Intelligence and Automation on the jobs landscape and summarizes the challenges which policy makers would have to deal with to harmonize the growth of technology and its societal impact.

Keywords: Artificial Intelligence, Automation, Interface between Human and Artificial Intelligence, Benefits and Challenges of Artificial Intelligence and Automation.

Introduction

Artificial Intelligence (AI) is basically intelligence demonstrated outside the human mind, essentially by machines. (Parakh, 2018) Machine Learning (ML) is a way of achieving AI and can be defined as the ability of computers to learn using statistical techniques without being specially programmed. Both the terms are symbiotic but also mutually exclusive in their own right with different definitions.

AI is software that is meant to perform functions that human intelligence can undertake like learning and problem solving among other things like reasoning, planning, perception as well as Natural Language Understanding (NLU) and Natural Language Processing (NLP). This technology, in the Information Technology (IT) sector, is being applied to several objects. Digital Assistants are one of the foremost products built keeping AI in mind. Amazon's Alexa, Apple's Siri, and Tesla's Autopilot are some popular Virtual Assistants. However, today, IT industries are experimenting with a plethora of AI-enabled services and solutions and tagging them "smart," like Smart TVs, Smart Toys, Smart Speakers, Smart Autonomous Cars, and others.

1. Evolution of Artificial Intelligence and Impact on Jobs – Review of Literature

Keynes was the first to postulate in 1937 that rapid technological progress can impact jobs. He further indicated that this can impact in two ways:

- By directly displacing workers from tasks that they were previously performing (displacement effect).
- By increasing the demand for labour in industries or jobs that arise or develop due to technological progress (productivity effect).

Autor, Levy & Murnane (2003) stress that technology can replace human labour in routine tasks whether manual or cognitive but as yet cannot replace human labour in non-routine tasks. Goos & Manning argue that the impact of technology leads to rising relative demand in well paid skilled jobs, which typically require routine non cognitive skills and rising relative demand in least skilled jobs which typically require non routine manual skills.

At the same time demand for middling jobs which typically required routine manual & cognitive skills will fall. The authors call this process job polarisation. Acemoglu & Autor (2011) found similar results for the U.S., while Darvas & Wolff (2016) report such developments for a selection of EU countries too: France, Germany, Italy, Spain, Sweden & the UK. Their finding is that the number of high-education jobs such as Manager's, Engineers and health professionals is growing while the number of middle-education jobs (clerks, machine operators, assemblers is declining). However low education service occupations like shop workers, plumbers etc. which are non-standard and difficult to automate are also growing due to the growth of the economy. A key conclusion is that technology was incorporated into the subset of core job tasks previously performed by middle skill workers, causing substantial change.

In general past industrial revolutions suggest that in the short run the displacement effect may dominate. But in the longer run when markets and society are fully adapted to major automation shocks, the productivity effect can dominate and have a positive impact on employment. However the reliability of this approach is questionable as researchers from Mckinsey Global Institute estimate that the disruption of society caused by AI is happening 10 times faster and at 300 times the scale of the Industrial revolution in the 18th & early 19th centuries and is therefore having roughly 3000 times the impact (Dobbs, Manyika and Woetzel).

This rapid progress of AI has led to assessing the risk of occupations and tasks that could be automated in the next few decades because of advances in technology. Frey & Osborne (2013, 2017) famously claimed that 47% of US occupations were at risk of being automated in the next decade or two. Bowles (2014) repeated this analysis for the European job market and found that on an average 54% of EU jobs are at risk of being automated.

In a recent paper published in the National Bureau of Economic Research (May 2018); Ajay Agrawal; Jushua Gans & Avi Goldfarb have explored the impact of Artificial Intelligence: Prediction Versus Judgement and have concluded that based on recent developments in the field of artificial intelligence (AI), they examined what type of human labor will be a substitute versus a complement to emerging technologies. They argue that these recent developments reduce the costs of providing a particular set of tasks – prediction tasks. Prediction about uncertain states of the world is an input into decision-making. They show that prediction allows riskier decisions to be taken and this is its impact on observed productivity although it could also increase the variance of outcomes as well. They consider the role of human judgment in decision-making as prediction technology improves. Judgment is exercised when the objective function for a particular set of decisions cannot be described (i.e., coded). However, they also demonstrate that better prediction impacts the returns to different types of judgment in opposite ways. Hence, not all human judgment will be a complement to AI. Finally, they show that humans will delegate some decisions to machines even when the decision would be superior with human input.

2. Artificial intelligence & Automation impact on businesses – a perspective

Allen Frank (2018) states that we are rapidly moving towards a workplace where people will interact with Machines on a routine basis. Technology is now interwoven into many of our everyday job tasks. He believes that AI is set to impact work in 3 major ways: Human to Machine Interaction, Smart Process Automation and Advanced Analytics which are discussed below

a) **Human to Machine Interaction**
The best example of this is the rising use of Chatbots which are now able to demonstrate how technology is increasingly able to capture the human essence by evoking and responding to human speech and actions. This is already being felt across a range of sectors like customer service, personal service assistant which is able to autonomously provide answers and assist in completing tasks etc.

b) **Smart Process Automation**
Today machines are already responsible for much of the basic work being done across many industries. From robotic process automation to natural language translation to fielding customer service requests they are becoming smarter and more capable. With the advances in technology machines like 3D Printers are able to leverage technology to provide customized mass production giving a competitive edge to several industries. Machines are also able to perform several complex and hazardous tasks and this has

revolutionized industries like automobiles production etc. and altered the balance of labor versus machines.

c) **Advanced Analytics**

Due to rapid rise in computing technologies and storage of data; advanced analytics and AI based machine learning are discovering patterns in data and using those identified patterns to generate value. It helps companies plan business operations and better understand customers. This technology enables business leaders to gain insight into their organizations as they function allowing them to increase revenue, reduce costs and improve overall customer satisfaction. Advanced analytics is becoming essential for organizations that want to be truly insight driven.

Interface between Human & Artificial Intelligence

However while there would be a lot of disruption over the next 5 to 10 years; Erik Brynjolfsson of MIT Sloan School of Management believes that if we could better understand those effects and if we could work to reinvent our business processes; we would be able to take advantage of these technologies to create benefits and wealth for society and organizations. Further Brynjolfsson's team analyzed data from the Department of Labor which gave descriptions of 964 occupations in the US economy and evaluated each skillset to determine which tasks could be done better by AI. The results were mixed and while there were plenty of tasks which could be done by AI there were equally tasks where humans were better than AI and Machine learning. In fact the major finding was that there would need to be coordination to help AI and humans work together which would also require the workforce to be upskilled.

3. Benefits & Challenges of Artificial Intelligence and Automation

There is no doubt that AI & Machine Learning is here to stay as IDC has predicted that $46 billion would be spent by industry by 2020 on AI and almost every industry is working on a digital strategy for the business. Forbes Technology Council has in a study come up with 14 points in which AI could benefit or harm society and organizations.

- **Efficiency & Throughput**

  While there is no doubt that AI & Automation are disruptive technologies they have also been very successful in enhancing productivity through cost savings and revenue generation as demonstrated in a variety of industries from automotive to customer services.
- **Harnesses Human Creativity**

  Humans are not best served by doing tedious tasks and AI provides the platform to enhance the creative content in jobs.

- **Adds Jobs, Strengthens the Economy**
  While this is debatable there is no doubt that AI will encourage a gradual evolution in the job market which with the right policy framework and business preparation will yield positive results. The unparalleled combination of human and machine could become the new normal in the workforce of the future.
- **Leads to Loss of Control**
  While this is a contentious topic if machines do get smarter than humans there could be a potential loss of control which could become a detriment.
- **Enhances Lifestyle**
  There is strong evidence of this and the rise of AI has resulted in increased convenience at home by the use of intelligent assistants, better healthcare, and smart homes with energy efficiency; use of IOT etc. to enhance the quality of life.
- **Application in Healthcare**
  There is again a huge potential for improved diagnostics, remote diagnostics and telemedicine etc. which has a huge significance for underserved economies like India and countries in Africa etc.
- **Creates Unintended & Unforeseen Consequences**
  Again the controversies surrounding the ill effects of data and technology are well documented with the possibilities of killer robots; influencing election outcomes by voter profiling and influencing human behavior though mass dissemination of fake news etc.
- **Increases Automation**
  While this will be a major benefit for business due to reduction in operational costs etc. the impact on society needs to be evaluated before concluding that this is a net positive.
- **Elevates Mankind**
  The ability of technology to solve problems, answer more questions and innovate more could be used for good or ill. However if history is a guide the improvement in technology does to tend to benefit mankind and allows us to focus on higher order functions and improved quality of life.
- **Solves Complex Social Problems**
  Although AI has the promise for solving complex social problems, there are ethical issues and biases which we must still explore as this is an area which is still its infancy.
- **Improves Demand Side Management**
  There is evidence that machines have become smarter over time and have improved efficiency and throughput. Advances have also resulted in the ability to perform customized mass production and will become a competitive edge for several industries.

- **Benefits Multiple Industries**
  The impact of AI and automation has been widespread with applications in diverse areas like academic research, health sciences and technology applications. It has the potential to completely change the way we look at industries of the future.
- **Absolves Humans of all Responsibility**
  The growth and application of AI can have the potential to make people unnecessary and remove all human elements of production. There would always be the need for judgement to be applied and elements of human emotion which can impact productivity.
- **Extends & Expands Creativity**
  While there is no doubt in the impact on creativity the concerns are mainly around AI leading to large scale jobs losses and going rogue and taking control of the human race. However both of these concerns could be addressed.

4. Conclusions and Suggested Approaches for Future Research

Based on the detailed examination of the literature on Artificial Intelligence and Automation there is definite merit that technology is here to stay and will have significant impact on the way we will live and conduct business in future. It is also clear that organizations and business models would have to evolve where the technology strategy would be critical to the organizations productivity, profits and perhaps it's survival.

However despite the disruptive and potentially destructive capabilities and potential of Artificial Intelligence and Automation we definitely cannot conclusively eliminate all human intervention. There is a strong case to prove that technology would always be subservient to the human race and the very purpose of technology is to serve humanity and improve the quality of life of people.

A few authors like Ruchir Sharma have in fact opined that far from being a threat Artificial Intelligence and Robotics good be a good thing for the global economy. Countries in which robot density is the highest- Japan; South Korea; China & Germany are all nations where working age population is declining. Robots are coming but the robots are coming in where in areas where human beings are naturally vacating. Some predictions show that Japan's population of 120 million may come down to half in the next 50 years. This is where Artificial Intelligence can make the maximum impact and can benefit the society. Technology has the potential to bring about tectonic changes and forcing organizations to come up with a model whereby Artificial Intelligence and human creativity could co-exist and as technology would have the potential to significantly change the nature of jobs in the future; this would throw up some critical challenges as enumerated below:

- How to create a balance between technological advancement and the value addition of human beings and how would new business models evolve to harmonize these twin objectives?
- Based on the jobs of the future how would education and training for future generations evolve to help them be contemporary and relevant to the workplace of the future?
- How to manage risks and challenges of the digital age and ensure that the harmful effects of technology are managed through the right mix of laws and societal values?
- How would the transition impact future generations and what kind of social and economic security systems do we need to build to ensure a seamless transition?

These questions need careful deliberation and future research and knowledge should work to address these areas where we need to evolve a completely new code and generate ideas to manage technological change and ensure that this does not lead to widespread value destruction and social unrest.

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