

The Assessment of a Creative Climate within an Organization

Vincent A. Fomujang¹, Cisheng Wu², Angwi Tassang³

¹Hefei University of Technology, School of Management, 193 Tunxi Road, Hefei Anhui, P.R. China, P.C. 230009

²School of Management, Hefei University of Technology, 193 Tunxi Road, Hefei Anhui, P.R. China, P.C. 230009

³University of Science and Technology of China, School of Public Affairs, No.96 Jinzhai Road, Hefei Anhui, P.R. China, P.C. 230026

Abstract: Every organization's level of innovativeness is being determined or influenced by the working atmosphere it offers its employees. This paper therefore had as objective to use the situational outlook questionnaire (SOQ) to determine the type of creative climate within Premier Games Mutengene which shall henceforth be referred to as (PGM). PGM is a lottery/ betting company in the English part of Cameroon. The results gotten from a sample size of 134/150 respondents were processed and compared with the benchmarks scores of Isaksen and Tidd (2006) to ascertain the execution rate of the SOQ dimensions so as to determine whether PGM was innovative or stagnated. The results revealed PGM to be innovative only in two dimensions, i.e. Idea time(53.7% execution rate) and risk taking(92.22% execution rate). The company was average in Freedom(63.3%), Idea support (60.15%) and Debate (49.05). Finally, PGM was weak or stagnated in Playfulness and humor (48.15%) and very weak in Challenge (49.95%), Trust (46.35%) and Conflict (69.9%). A one sample t-test was conducted which confirmed risk taking as a strength within PGM while also portraying conflict as a grave weakness.

Keywords: Creativity, Innovation, innovativeness, creative climate

1. Introduction

The relevance of innovativeness within an entity doesn't need to be stressed upon anymore. Going by Craig, (2016), a creative climate is an important factor influencing the innovative phenomenon within an organization. This is so because it is the conditions of the work environment that will play a vital role in enabling the right conditions for innovativeness. The more the climate is tilted towards innovation, the more innovative and competitive the organization becomes and vice versa (Rahman, 2016).

It is a central assumption in creativity theory that the creativity of an idea is defined by its novelty and usefulness, Diedrich, Benedek, Jauk, & Neubauer, (2015) as seen in Amabile's definition of Creativity being the ability to produce ideas that are both novel (i.e., original, unexpected) and appropriate (i.e., useful, adaptive to task constraints) while innovation is defined as the implementation of ideas (Amabile, 1983). Being innovative equally helps organizations prepare for and build a solid future because it has the capability of making that organization see beyond. According to Guarda et al., (2016), for organizations to be able to secure a future competitive advantage, they must be dynamic in their business strategies. Meaning change must be consistent as companies cannot longer shield themselves from change in today's business environment which can be termed "ever competitive". This simply describes innovation as an engine for growth (Nike, 2015).

2. Theory

2.1. Creativity and Innovation

A general definition of "creativity" states that creativity is "the use of imagination or original ideas to create something" (Oxford Dictionaries, Accessed 2015-08-21). Going by

Amabile's definition, Creativity is seen as the ability to produce ideas that are both novel (i.e., original, unexpected) and appropriate (i.e., useful, adaptive to task constraints) (Amabile, 1983). According to Frederiksen & Knudsen, (2017a), a creative idea can be thought of either by a single individual or individuals working together in groups. It can be anything, ranging from ideas regarding new products, services or processes within the organization's line of business, to ideas regarding new policies or procedures for the entire organization. The conception that only "creative people" have the ability to be creative is today being questioned. According to Vidal, (2013), to be human is to be creative. He further stated that it is possible to use activities, teaching methods, motivation and procedures to enhance and develop creativity, even in older people. Low, (2016) stated that creativity is not an attribute of a few gifted people. Creativity can be seen when a single idea is held in two contradictory frames of reference.

Innovation is defined as the implementation of ideas (Amabile, 1996). Frederiksen & Knudsen, (2017b) explain the concept of innovation as the process in which new ideas are implemented and transformed into products and services. Furthermore, an innovation can either come up with a new idea (radical- innovation) or it can be working to improve an existing product or solution or a diffusion of an existing innovation into a new application (incremental innovation) (Amabile & Pratt, 2016).

According to Rodriguez & Wiengarten, (2017), innovation is seen as an outcome while innovativeness is the process that leads to innovation. No universal definition exist as far as innovation is concerned. Generally, scholars have mostly defined it as the development and usage of ideas or behavior in organization. A new idea in this case could either be a new product, service or method of production. Thus innovation was seen as the successful implementation of creative ideas within an organization (Abdi & Senin, 2015).

Volume 8 Issue 3, March 2019

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

2.2. Creative Climate

A creative climate refers to that climate that adds value and enhances creativity within an organization, where 'climate' is an attribute of the organization and refers to a set of attitudes, feelings and types of behavior that emerge on a daily and collective basis within the organizational environment (Ekvall, 1996, Kirovska, Kochovska, & Kiselicki, 2017). Any climate that supports the development, assimilation and utilization of new and different approaches, practices and concepts is a climate for innovation and creativity (Leković & Marić, 2016). It is also one which promotes the generation, consideration and use of new products, services, and ways of working. Abdel-Razek and Alsanad, (2014) stated that all developing countries fall far behind developed countries in terms of creativity and innovation because they lack the enabling climate. Alabbas and Abdel-Razek, (2016) emphasized the importance of the evaluation and improvement of creativity and the prevailing climate in an organizations in order to improve their innovation and consequently their technology. Therefore Improving the organizational climate for creativity and innovation can effectively promote problem solving in a company and also increase its productivity and competitiveness (Açıkgöz & Günsel, 2016).

2.3. Dimensions of a Creative Climate

The dimensions of a creative climate play a great and decisive role in motivating work force to think creatively and also augmenting organizational performance by having radical product innovations. These 10 dimensions are also the characteristics of a creative climate which reflects the possibility for certain creative behaviours that affects change/innovation. Amabile whose theory supports Ekvall's link between climate, creativity and innovation sees creative behaviour as the beginning and necessary condition for innovation (Amabile 1996).

Going by Ekvall's, (1996) research on creative climate, the ten dimensions were described as follows;

- 1) Challenge: This measures the degree to which organizational members involve themselves in the daily operations of an organization. A highly challenged organizational climate will mean people are investing much energy in their work as there is a feeling of joy and meaningful experience involved in it. This leads to innovativeness and the opposite in which people feel alienated and less engaged leads to stagnation.
- 2) Freedom: A climate experiencing freedom is one in which organizational members are independent in behavior and exercise great autonomy in their manner of doing work. Here, there is the free flow or exchange of information.
- 3) Idea Support: This portrays how ideas are perceived at different levels of the organization. An idea supportive environment will mean one which is attentive and supportive to useful ideas no matter where they pop up from.
- 4) Idea Time: This refers to the amount of time used or set aside by an organization to elaborate and deliberate on new ideas before adoption. A high idea time organization is one which allocates enough time to test

and discuss suggestions and to equally schedule unplanned impulses.

- 5) Playfulness/Humor: The spontaneity and ease that is displayed within an organization's work place. It is of importance for a professional, yet relaxed environment to exist within an organization. This gives idea thinkers time to relax themselves either through jokes or some other form of recreational activity. The opposite will be an environment that is gloomy, stiff, gravely serious.
- 6) Conflict: This refers to the presence of personal and emotional tensions within an organization. When an organizational environment is characterized by such, there is bound to be a lot of dislike and hatred existing amongst members which only goes a long way to hamper innovativeness.
- 7) Dynamism: This refers to the eventfulness of life within an organization. A highly dynamic organization is one with new happening always. It is also decisive and speedy too.
- 8) Debates: Here, there is the occurrence of clashes between opinions, ideas, experience and knowledge. A debating organization is one in which everyone is keen while listening to others and also putting forth strong defense for their ideas.
- 9) Risk taking: This is the tolerance for uncertainty that exist within an organization. An organization whose risk tolerance is high will be one that will allow for emphasis on experimentation and rapid design making.
- 10) Trust/Openness: This is the emotional safety in relationships that exist within the organization. A safe feeling employee will be more willing to put forth his ideas and opinions than one who doesn't feel safe. In this case, there is the absence of reprisal when it comes to communication. When trust is missing within an organization, suspicion becomes the order of the day and ideas are being held back by members as they fear their ideas could be robbed.

It should be noted that analysis or significance can't be based only on one dimension because it is having a higher score than others as this could mean a shifting in weight from one dimension to another. This is so because these dimensions are interrelated in one way or the other.

2.4. Innovativeness

According to Dhargalkar, Shinde, & Arora, (2016) innovativeness is the capacity to introduce some new processes, products or ideas in an organization. Dibrell et al (2014) also defined innovativeness as a firm's willingness to place a strong emphasis on technological developments, new products, new services, and/or improved product lines or processes.

An organization's long term success depends on its ability to adopt sustainable innovativeness (Wang & Friske, 2016). Most researchers keep stressing on the importance of innovativeness because the very survival of any organization will depend on its level of innovativeness. It equally helps management device quicker and easier solutions to business problems. During this process, new ideas are discovered which are more effective than the old ones and also contribute more to business performances.

3. Research Method

The research was conducted within a company with several branches spread all over Cameroon's national territory. The method of data collection used was primary and quantitative in nature through the usage of the Situational Outlook Questionnaire of Isaksen (1995) which will henceforth be referred to as (SOQ). The SOQ which was derived from the creative climate questionnaire (CCQ) of (Ekvall, G. 1983). The SOQ consisted of the 9 dimensions (Challenge, Freedom, Idea support, idea time, Trust/Openness, Playfulness/humour, Debates, Conflicts, Risk taking and Idea time). The SOQ was ideal in this research because it emphasizes on how attitudes, feelings, and behaviors support creativity and change (Ekvall, 1996; Isaksen, Lauer, Murdock, Dorval, & Puccio, 1995; Lauer, 1994).

The SOQ results gotten from PGM were compared with the results of international standards or norms of Isaksen and Tidd (2006) so as to provide better understanding of the organization's capacity. The strengths and weaknesses of PGM were determined by conducting a one sample t-test to find out statistically the significant difference between PGM and (innovative/stagnated organizations).

Many other studies on innovative climate that equally used the international norms/benchmarks of Creative Problem Solving Group to compare the results of their studies will include those of (Bakkar, 2003; Parrish, 2004; Senekal, 2007).

The original version of the SOQ had 5 questions per dimension but for the sake of this study, these questions were streamlined to 3 by merging similar questions per dimension so as to ease responding. Each of these questions were answered on a 4-point likert scale as follows 0 (not applicable at all), 1 (applicable to some extent), 2 (fairly applicable), or 3 (applicable to a high degree). Each respondent's overall score was then gotten by multiplying the aggregated averages by 100 per dimension so to have the scores within the theoretical range of 0 - 300. 8 out of these 9 dimensions are regarded as positive dimensions, meaning the higher the score recorded, the higher the rate of innovativeness and vice versa. Conflict is a negative dimension and should be favorable with a lower score. 3 control variable questions were also included. Control variable questions were closed ended with options from which respondents had to choose.

In order to achieve the aim of this assessment, the results of the survey were processed, using the Statistical Package for Social Sciences (SPSS v.23.0 software) to bring out the means and standard deviation of the 9 dimensions so as to enable comparison with the international benchmarks of Isaksen and Tidd (2006). Graphs were plotted using MS excel 2010.

3. Company Profile and Characteristics of Participants

3.1. Company Profile

Premier Games Mutenegene (PGM) is the leading lottery/betting company in Cameroon. The company is privately owned with branches all over the national territory. The company has a variety of products such as Premier parifoot, premier lotto, premier virtual dog race (VDR), super 4 lotto, premier bet. The company began operations in 2008 with a staff strength of about 200 employees. The average daily sales of the company is about 25000USD with more income being generated from its most loved product-parifoot. The research was conducted within the human resource and operations departments of the company as these are the departments that are directly being affected by the creative climate and innovativeness.

3.2. Characteristics of respondents.

A total of 150 questionnaires were distributed and out of this number, the following observations were made. 134 respondents responded to the questionnaires, giving a response rate of 89.33%. Under which 51.1% were females and 48.9% were males thus representing some sort of gender equity. 57.8% were between the ages of 26 and 35, 28.1% were between 18 and 25 years old, 12.6% between 36 and 45 years old and 1.5% were above 45 years of age. The above characteristics shows that more youths with active brains that could be used creatively to foster organizational growth and innovativeness were involved. On the aspect of years of experience, the research showed 27.1% of total respondents having less than a year of experience, 57.9% had between 1 and 5 years of experience, and 15% having between 5 and 10 years of experience. This shows that a greater percentage of the respondents had a good mastery their working climate and the effects it had on their job creativity

4. Result Assessment

4.1 Validity and Reliability

The validity of a quantitative study determines how truthful the research results are and whether or not the research adequately measures its intended purpose. Reliability on the other hand refers to the accuracy with which the results represent the population and the consistency of the measures (Neuendorf, 2002). This relationship was enabled by the following criteria. Composite reliability (CR) value varies between 0-1 and its satisfactory consistent validity varies between 0.7 to 0.9. The Cronbach's alpha (α) assesses the variables' reliability average variance with the threshold of $\geq .70$ to show how associated it is with other constructs (Peterson, 2013). This research depends on the IBM SPSS v.23.0 software for the calculation of the reliability between variables. Based on IBM, (2015) standards, a Cronbach's Alpha coefficient of $\geq 0.70 \leq 0.90$ is ideal for social science studies. The Cronbach's alpha (α) scores per dimension were as follows; Challenge (.772), Freedom (.719), Idea support (.775), idea time (.783), Trust/Openness (.760),

Playfulness/humour (.794), Debates (.805), Risk taking (.775), Conflict (.751) and Idea time (.783). The overall Cronbach's alpha (α) value was .763.

4.2 Presentation of results and Discussions

These analyses are based on the survey that was conducted, sampling the opinions of workers from PGM. The respondents were asked to state the degree to which each of the dimensions of a creative climate were applicable within their organizations. The resulted score ranged between 0 and 300. The higher the score recorded for these 8 dimensions, (Challenge, Freedom, Idea support, idea time, Trust/Openness, Playfulness/humour, Debates, Conflicts, Risk taking and Idea time) the better that climate and the inverse will be true for conflict. Table 1 below shows the received results per dimension while figs 2 and 3 represent the these results using a bar chat and a cobweb diagram respectively.

Table 1: Means and Std. Deviations of PGM

	N	M	S.D	(%)
Cha	134	149	15.91	49.95
Free	134	189	15.91	63.30
Trust	134	139	12.95	46.35
I.T	134	161	18.08	53.70
Play	134	144	15.47	48.15
Conf	134	209	23.65	69.90
I.S	134	180	20.43	60.15
Deb	134	147	17.93	49.05
R.T	134	276	27.06	92.22

Where; cha=Challenge, free=freedom, I.T=Idea time, Play=playfulness, Conf=conflict, I.S=Idea support, Deb=debate, R.T=risk taking

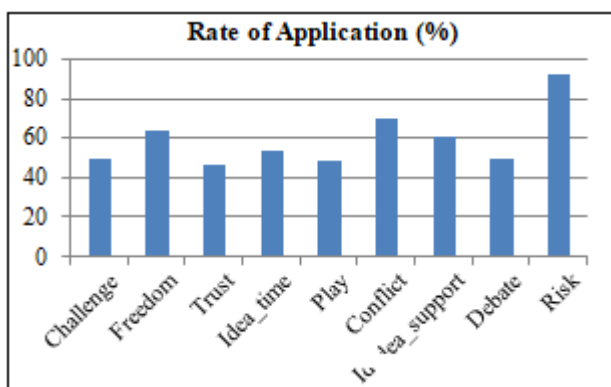


Figure 1: Rate of application represented on a bar chart

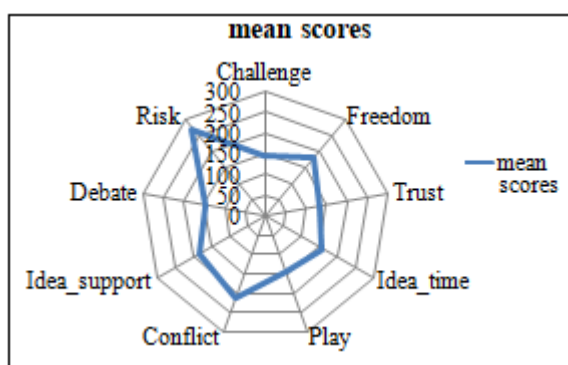


Figure 2: Innovative assessment (PGM)

4.2.1. Risk

This is the degree of tolerance for uncertainty that exist within an organization. An organization whose risk tolerance rate is high will allow for emphasis on experimentation and rapid design making. This dimension recorded a score of 92.22% as in table 1 above which is the highest amongst the 9 dimensions and however too high when compared with benchmark scores. This could be interpreted to mean an ever ready organization as far as risk taking is concerned. This shows that the respondents were in more of an experimental environment as they indicated that they had ready financial resources and other materials to cover up for their experimentations as top management was ever ready in risk taking so as to better the future prospects of the organization.

4.2.2. Conflict

This refers to the presence of personal and emotional tensions within an organization. When an organizational environment is characterized by such, there is bound to be a lot of dislike and hatred existing amongst members which only go a long way to hamper innovativeness. This is a negative dimension. According to Tidd&Bessant (2013) conflicts can occur over: tasks, processes or relationships. While task conflicts arises due to disagreement concerning "what needs to be done", "how it is supposed to be done" and "why it is supposed to be done", relationship conflicts have to do with emotions. The survey indicated that the nature of conflicts found in this organization were more of relationships than tasks, scoring 69.9% as in table 1 above. This is extremely high and detrimental to the wellbeing of the organization. Respondents indicated that other employees were often not welcoming to the ideas of others. They also indicated the presence of destructive competitions within the organization and the presence of political issues within the organization. The very high score recorded here explains the reasons why other positive dimensions recorded lower below average scores.

4.2.3. Freedom

A climate experiencing freedom is one in which organizational members are independent in behavior and exercise great autonomy in their manner of doing work. Here, there is the free flow or exchange of information. A high score here will imply more perceived autonomy and individuals too will be able to act upon their ability discretion. Following our survey as indicated in table 1 above, freedom is applied with a 63.3%. Respondents were of the opinion that they had the freedom to decide on how they were going to carry out a particular task, but weren't free to decide on what projects they could efficiently carry out. Although these were indicators of a climate with a high level of freedom, the respondents also indicated the presence of some strict rules and procedures which they had to sometimes follow which hampers their freedom to an extent.

4.2.4. Idea Support

This portrays the manner in which ideas are perceived at different levels of the organization. An idea supportive environment will mean one which is attentive and supportive to useful ideas no matter where they pop up from. This is a positive dimension. Opinions from respondents indicated a 60.15% application rate of idea support as indicated in table 1 above. Respondents indicated that while top management

supported and encouraged idea creation, their immediate colleagues did not. They also indicated that more ideas were accepted within their company though very few were being implemented and the extreme bureaucratic nature of their work environment.

4.2.5. Idea Time

This refers to the amount of time used or set aside by an organization to elaborate and deliberate on new ideas before adoption. A high idea time organization is one which allocates enough time to test and discuss suggestions and to equally schedule unplanned impulses. Based on this survey as indicated in table 1 above, idea time was implemented with a 53.7% rate. This was relatively average comparatively. This indicated that respondents weren't given their desired time to think and bring forth lucrative ideas that will foster innovativeness. Respondents also indicated the existence of some sorts of pressure in the execution of their tasks. The existence of pressure within any organization makes its workers more likely to be less creative or innovative. They also believed that they weren't given enough time to bring forth creative ideas.

4.2.6. Challenge

This measures the degree to which organizational members involve themselves in the daily operations of the organization. A highly challenged organizational climate will mean people are investing much energy in their work as there is a feeling of joy and meaningful experience involved in it. This leads to innovativeness and the opposite in which people feel alienated and less engaged leads to stagnation. Our survey gives an execution rate of 49.95% for this dimension as in table 1 above. Respondents believed that they had little or no challenges in the tasks they perform as such tasks were assigned to them against their opinions. As such, they had a dissatisfactory and alienated feeling towards their jobs.

4.2.7. Debates

A debating organization is one in which everyone is keen while listening to others and also putting forth strong defense for their ideas. Such an environment is often more innovative because many more voices are being heard before ideas are implemented. Also, employees try as much as possible to have their voices heard too so as to be part of the decision making team. The focal point in this dimension is for individuals to spend more time deliberating on ideas and not individuals and their relationships. This research saw debate scoring a 49.05% within PGM as indicated in table 1 above. This was very low and not favorable for innovativeness considering the fact that debate and idea creation which leads to innovativeness have a direct relationship. Respondents indicated that most organizational members were not being consulted upon before ideas were being implemented. They also indicated that they had very little instances where they could actually chat with management. They went ahead to indicate that they often do not take part in selecting what tasks they could actually perform efficiently.

4.2.8. Playfulness/Humor

This refers to the spontaneity and ease that is displayed within an organization's work place. It is of importance for a

professional, yet relaxed environment to exist within an organization. This gives idea thinkers time to relax themselves either through jokes or some other form of recreational activity. The opposite will be an environment that is gloomy, stiff, gravely serious. The respondents indicated a 48.15% implementation rate of this dimension within the organization as in table 1 above. This is way back below average and being a positive dimension, it indicates that there is the existence of some tension within these organizations. Respondents indicated that their working environments weren't relaxed enough and in addition to this, their organization did not provide any form of recreational facilities to their workers.

4.2.9. Trust/Openness

This is the emotional safety in relationships that exist within the organization. A safe feeling employee will be more willing to put forth his ideas and opinions than one who doesn't feel safe. In this case, there is the absence of reprisal when it comes to communication. When trust is missing within an organization, suspicion becomes the order of the day and ideas are being held back by members as they fear their ideas could be robbed. The survey revealed a 46.35% implementation rate of trust within PGM. This was probably as a result of the high rate of distrust and suspicion in existence amongst employees, preventing free communication amongst colleagues. Respondents clearly indicated that as a result of the high level of distrust and suspicion amongst them, they fear to freely share their ideas within their various groups which gravely hinders innovativeness.

4.3. Result comparison with Benchmarks

Table 2 below compares PGM results with those of benchmarks. Based on this table, the following analysis could be drawn. PGM was better than innovative benchmarks in risk taking and idea time. PGM was equally better than average benchmarks in freedom, idea support and debate. The results also showed PGM being slightly better than stagnated organizations in the playfulness dimension. Finally PGM appeared worse than stagnated benchmarks in the three dimensions of challenge, trust and conflict. Summarily, it can therefore be concluded that PGM could be seen as innovative only in the 2 dimensions of idea time and risk taking, and could be categorized as an average company when the following dimensions were compared; freedom, idea support and debate while being considered as stagnated if the challenge, trust, conflict and playfulness dimensions were compared. These results are best illustrated in table 2 and figure 3 below.

Table 2: Benchmark values compared PGM

	(Inno org)		(Stag org)		(PGM)	
	M	SD	M	SD	M	SD
Cha	238	27	163	10	149	15.91
Free	210	16	153	32	189	15.91
Trus	178	36	128	29	139	12.95
I.T	148	13	97	26	161	18.08
Play	230	31	140	21	144	15.47
Conf	78	31	140	14	209	23.65
I.S	183	14	108	23	180	20.43
Deb	158	31	105	6	147	17.93
R.T	195	27	53	15	275	27.06

Where; Where, cha=Challenge, free=freedom, I.T=Idea time, Play=playfulness, Conf=conflict, I.S=Idea support, Deb=debate, R.T=risk taking

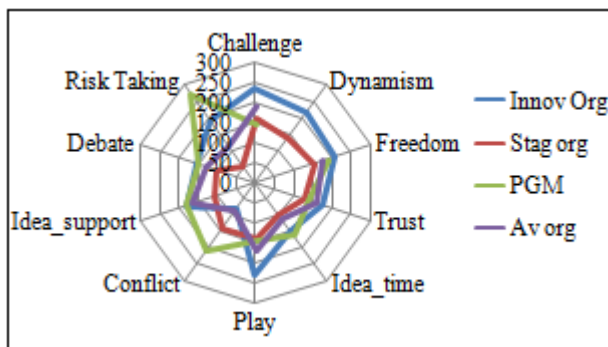


Figure 3: cobweb comparison between PGM and benchmarks

Innov org= innovative organizations, Stag org = stagnated organizations, PGM= premier games Mutengene, Av org = average organizations

5. Strengths and Weaknesses

5.1 Strengths and Weaknesses of PGM in Relation to International Benchmarks

Results gotten from PGM were compared with results of the international standards or norms of Isaksen and Tidd (2006) so as to provide better understanding of the organization's capacity. They published scores of the nine dimensions of innovative climate that were evaluated by the SOQ and presented innovative, average and stagnated organizations. They categorized organizations as either innovative, average, or stagnated based on their product performance and commercial successes. While innovative organizations were quicker in the development and dispatching of more new products and services to the marketplace and being commercially successful, Stagnated organizations were unable to control the development of new products and services, faced difficulties getting them to the market in time and in the most cost-effective manner, and were commercially troubled. Average companies fell in between. The strengths and weaknesses of PGM were determined by conducting a one sample t-test to find out statistically the significant difference between PGM and (innovative/stagnated organizations). A t-test is used to determine if two sets of averages (means) are significantly different from each other or not (Stephanie, 2018). It also tells you how significant the differences are. The one sample t-test is used in this case because of the non-availability of the populations of both the innovative and stagnated organizations. In the case where the difference is reliable or real, it will imply a significant difference between PGM and innovative benchmarks at the 0.01 level of α ($p < 0.01$), where a lower α value indicates a more statistically significant result. If PGM records a statistically higher or equal score in its dimensions with innovative benchmarks, it is considered a strength point and if PGM records a lower or equal score to stagnated dimensions scores, it will be considered a weakness.

5.1.1 Comparing PGM with international innovative benchmarks

Following table 3 below, a one sampled t-test was calculated at the test level $p = 0.01$ to compare means of PGM and international innovative benchmarks. The comparison indicated that scores gotten from PGM were positively significant statistically to those of international benchmarks in the 2 dimensions of Conflict and Risk taking while being negatively significant statically to those of international benchmarks in the 4 dimension of Challenge, Freedom, Trust and Playfulness. This means that these 4 dimensions had a negative effect on innovativeness within PGM which is a weakness. The results also indicated no significant difference between PGM and innovative benchmarks in the 3 dimensions of idea time, idea support and debate. This implies similarities in innovative levels in both cases.

Summarily,

- PGM had Risk taking and conflict as strongest significant dimensions as their values were higher than those of innovative benchmarks at $p < 0.01$. While Risk taking will affect innovativeness positively, Conflict will do so negatively.
- PGM had 3 normal dimensions which are; idea time, idea support and debate because there wasn't any significant difference statistically between them and those of innovative organizations.
- PGM had Challenge, Freedom, Trust and Playfulness as negatively significant statistically at a test level of $p < 0.01$ when compared with innovative benchmarks. This however affects innovativeness adversely.

5.1.2. Comparing PGM with stagnated benchmarks

Following table 3 below, a one sample t-test was equally used to compare PGM results with those of stagnated benchmarks at test level $p < 0.01$. The following results were gotten.

- PGM means were significantly higher positively than those of stagnated organizations at a level of $p < 0.01$ in the 7 dimensions of Freedom, Idea time, Idea support, Conflict, Debate, Challenge and Risk taking.
- There was no significant difference statistically between PGM and stagnated organizations at a test level of $p < 0.01$ in Trust and Playfulness thus making PGM similar to stagnated organizations in the above dimensions.

Table 3: t-test value comparison between means of PGM and those of Innovative and stagnated benchmarks.

Dim	Innovation benchmarks			Stagnated benchmarks		
	T-test	Df	p	T-test	Df	P
Cha	-14.174	134	0.00**	-2.040	134	0.043*
Free	-3.173	134	0.02**	5.993	134	0.00**
Trus	-8.133	134	0.00**	1.830	134	0.070
I.T	1.882	134	0.062	9.133	134	0.00**
Play	-14.196	134	0.00**	0.760	134	0.448
Conf	14.325	134	0.00**	7.581	134	0.00**
I.S	-3.11	134	0.757	9.128	134	0.00**
Deb	-1.516	134	0.132	6.107	134	0.00**
R. T	7.801	134	0.00**	21.302	134	0.00**

$p < 0.01$ significance predictive ability of variance

Wher; cha=challenge, free=freedom, Trus=trust, I.T=Idea time, Play=playfulness, Conf=conflict, I.S=Idea support, Deb=debate, R.T=risk taking

6. Limitations/Recommendations for future studies

- 1) This study was limited to only one company. As such, it has uncovered several future research paths. For instance, a similar study could be replicated in other similar companies to PGM so as to gather a better and clearer image of the actual creative climate existing within the industry.
- 2) The extent to which management takes risk within PGM was gravely high and must be reduced to a suitable level for innovativeness to be successful.
- 3) On the part of dimensions indicating stagnation such as challenge, freedom, trust, conflict and playfulness, the following recommendations could be beneficial. On the part of conflicts, the organization could seek for the services of more competent employees with the qualities of better managing subordinates so as to reduce the conflicting and tensed atmosphere in existence. Also recalcitrance shouldn't be permitted on the part of the employees. For the challenge dimension, employees could be more challenged in their tasks if they are involved more in the mission and vision strategies of the firm. Also employees could be assigned to more challenging tasks. For the trust dimension, a more communicative environment should be created in which employees will feel free to share their ideas. For playfulness, recreational facilities could be created so as to always help in relieving stressful minds.

7. Conclusions

Following the result obtained, analyzed and compared with the international benchmarks above, this study can therefore portray PGM as a non-innovative company as out of the nine SOQ dimensions tested, PGM was inversely related to innovativeness in 5 (challenge, freedom, trust, playfulness and conflict). PGM was also seen to be strong just in 3 dimensions (idea time, idea support and debate) and only one dimension (risk taking) was ranked to be higher than that of innovative benchmarks.

A one sample t-test was conducted which confirmed risk taking as a strength within PGM while also portraying conflict as a grave weakness.

Recommendations were made for further research areas and also providing some solutions to ameliorate the prevailing innovative situation within PGM.

References

- [1] Abdel-Razek, R., & Alsanad, D. S. (2014). Auditing and comparing innovation management in organizations.
- [2] Abdi, K., & Senin, A. (2015). Investigation on the Impact of Organizational Culture on Organization Innovation. *Asian Social Science*, 11(23), 114–128. <https://doi.org/10.5539/ass.v11n23p114>
- [3] Alabbas, S., & Abdel-Razek, R. (2016). Mapping and benchmarking technological innovation of three international petrochemical companies.
- [4] Açıköz, A., & Günsel, A. (2016). Individual Creativity and Team Climate in Software Development Projects: The Mediating Role of Team Decision Processes. *Creativity and Innovation Management*, 25(4), 445–463. <https://doi.org/10.1111/caim.12173>
- [5] Amabile, T. M. (1983). The social psychology of creativity: A componential conceptualization. *Journal of personality and social psychology*, 45(2), 357.
- [6] Amabile, T. M. (1996). *Creativity in context: Update to the social psychology of creativity*. Hachette UK.
- [7] Amabile, T. M., & Pratt, M. G. (2016). The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning. *Research in Organizational Behavior*. <https://doi.org/10.1016/j.riob.2016.10.001>
- [8] Bakkar, A. A. (2003). *Creativity-Enhancement In Media Organizations: A Study Of The Perception Of Journalists And Media Managers In Saudi Arabia*, unpublished Ph.D. dissertation, University of Oklahoma Graduate College.
- [9] Bessant, J., & Tidd, J. (2013). *Managing innovation: integrating technological, market and organizational change*. Wiley.
- [10] Dhargalkar, K., Shinde, K., & Arora, Y. (2016). A universal new product development and upgradation framework. *Journal of Innovation and Entrepreneurship*, 5(1), 27. <https://doi.org/10.1186/s13731-016-0055-7>
- [11] Dibrell, C., Craig, J. B., & Neubaum, D. O. (2014). Linking the formal strategic planning process, planning flexibility, and innovativeness to firm performance. *Journal of Business Research*, 67(9), 2000–2007.
- [12] Diedrich, J., Benedek, M., Jauk, E., & Neubauer, A. C. (2015). Are creative ideas novel and useful? *Psychology of Aesthetics, Creativity, and the Arts*, 9(1), 35–40. <https://doi.org/10.1037/a0038688>
- [13] Ekvall, G. (1983). *Creative organizational climate: Construction and validation of a measuring instrument*. Stockholm, Sweden: The Swedish Council for Management and Organizational Behavior.
- [14] Ekvall, G. (1996). Organizational climate for creativity and innovation. *European journal of work and organizational psychology*, 5(1), 105–123.
- [15] Frederiksen, M. H., & Knudsen, M. P. (2017a). From Creative Ideas to Innovation Performance: The Role of Assessment Criteria. *Creativity and Innovation Management*, 26(1), 60–74. <https://doi.org/10.1111/caim.12204>
- [16] Frederiksen, M. H., & Knudsen, M. P. (2017b). From Creative Ideas to Innovation Performance: The Role of Assessment Criteria. *Creativity and Innovation Management*, 26(1), 60–74. <https://doi.org/10.1111/caim.12204>
- [17] Guarda, T., Pinto, F. M., Cordova, J. P., Mato, F., Quina, G. N., & Augusto, M. F. (2016). Pervasive business intelligence as a competitive advantage. In *Iberian Conference on Information Systems and Technologies, CISTI* (Vol. 2016–July). <https://doi.org/10.1109/CISTI.2016.7521569>
- [18] IBM. (2015). *SPSS Software. Predictive Analytics Software and Solutions*, 1.
- [19] Isaksen, S. G., Lauer, K. J., Murdock, M. C., Dorval, K. B., & Puccio, G. J. (1995). Situational outlook questionnaire: Understanding the climate for creativity

and change (SOQ™)—A technical manual. Buffalo, NY: Creative Problem Solving Group.

- [20] Isaksen, S., & Tidd, J. (2006). *Meeting The Innovation Challenge: Leadership For Transformation And Growth*. John Wiley & Sons.
- [21] Kirovska, Z., Kochovska, E., & Kiselicki, M. (2017). Favourable Organizational Climate As a Complex Network of Values and Norms for Successful Execution of Working Duties. *Journal of Sustainable Development* (1857-8519), 7(18), 84–102. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=127007435&site=ehost-live>
- [22] Leković, B., & Marić, S. (2016). Psychological climate in the organization: A determinant of entrepreneurial behavior. In *Economic Development and Entrepreneurship in Transition Economies: Issues, Obstacles and Perspectives* (pp. 169–183). https://doi.org/10.1007/978-3-319-28856-7_10
- [23] Low, A. (2016). Creative Thinking. *The Journal of Global Education*, 4027(October), 455–463. <https://doi.org/10.1080/02604020600798635>
- [24] Neuendorf, K. A., 2002. *A Content Analysis Guidebook*. Thousand Oaks, CA: Sage Publications.
- [25] Nike. (2015). Sustainable Innovation Is a Powerful Engine for Growth. *Sustainable Business Report*, (1), 1–115.
- [26] (Oxford Dictionaries, Accessed 2015-08-21)
- [27] Parrish, E. L. (2004). *A Comparative Study Of The Organizational Climate At The Army Materiel Command Regarding Creativity And Change*. Unpublished Ph.D. dissertation, Minneapolis, MN: North Central University.
- [28] Peterson, R. A. (2013). Meta-analysis of Alpha Cronbach's Coefficient. *Journal of Consumer Research*, 21(2), 381–391. <https://doi.org/10.1093/bioinformatics/btr476>
- [29] Rahman, M. A. (2016). *Organization Strategies & Innovative Leadership Management*. *International Journal of Business and Management*, 11(10), 206. <https://doi.org/10.5539/ijbm.v11n10p20>
- [30] Rodriguez, J. A., & Wiengarten, F. (2017). The role of process innovativeness in the development of environmental innovativeness capability. *Journal of Cleaner Production*, 142, 2423–2434. <https://doi.org/10.1016/j.jclepro.2016.11.033>
- [31] Senekal, E. (2007). *The influence of organizational climate on creativity and innovation in a technology firm in South Africa*, unpublished Master's thesis, Faculty of Management, the University of Johannesburg.
- [32] Stephanie, K. (2018). T Test (Student's T-Test): Definition and Examples - Statistics How To.
- [33] Vidal, R. V. V. (2013). To be human is to be creative. *AI and Society*, 28(2), 237–248. <https://doi.org/10.1007/s00146-012-0415-1>.
- [34] Wang, X., & Friske, W. (2016). *Developing Sustainable Innovation Capabilities: The Roles of Innovation Assets, Top Management Innovation Commitment, and Marketing Department Power*. AMA Summer Educators' Conference Proceedings.

Author Profile

Fomujang Vincent Abande is a B.sc holder in Banking and Finance which he obtained from the University of Buea - Cameroon in 2011. In September 2015, he decided to go to China for further studies. He is currently a final year MBA student at the Hefei University of Technology, Anhui - China.