

# Development and Challenges in Sports: A Case Study of the Indian Cricket

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## Abstract

Cricket is the most popular game at present not only in India but also in the Indian Subcontinent. The controversies and the ups and downs of the willow game have been the subject of discussion by the cricket chroniclers and the lovers of the game in times gone by. The present study aims at examining the level of motivation among players, nature and role of cooperation from academic institutions such as the college or the university, from the family, need for a different academic course structure for players and fairness in the selection process. Using the information through a sample of 320 student cricketers, the role of the University of Delhi in nurturing the talent and producing some outstanding cricketers of national and international levels has been probed. Absence of trainers along with commensurate infrastructure seems to be the bane in developing top cricketers in the Colleges and the Universities. Forced to give major part of their time to the sport, it is tough for the sportspersons to focus on academics. Continuous training and travel with consequent missed classes makes it tough to secure good credits in class attendance and internal assessment which results in adverse performance in semester examinations. The sports centric curriculum and sufficient credit for performance in sports with adequate, flexible teaching schedules, improved training and sports infrastructure in colleges and the universities in India can only raise the standard of cricket and other sports.

**Keywords:** Teaching schedule, Sports infrastructure, internal assessment

## 1. INTRODUCTION

University education in India actively promotes physical activity and sports and values the participation by students in improving the university ranking both nationally and internationally. Historically, it is mainly the public funded colleges and the universities in higher education in India that support development of sports infrastructure and individual sports persons. Social, economic and demographic factors such as age, sex, income play a significant role in determining the physical activity and participation in sports. National interest in promoting sports extends beyond promotion of sports in terms of medals at the national and international competitions to achieving larger societal goals such as reducing obesity, deterring crime and promoting integration and social harmony. National sports policy is the need of the hour to promote sports holistically at the education institutions, leading to develop sports culture. Sports persons in the age group of twenty to twenty five years pursuing higher education in general encounter many hurdles in achieving the twin objectives of acquiring graduate degree and staying fit in individual centric sports like athletics or team games such as cricket or hockey. Firstly, game specific coaching in the colleges for long term health and physical fitness training in competitive sports is not available. Secondly, training with substandard sports goods and equipment often proves counterproductive. Thirdly, non-availability of sports medicine and lack of nutrition, sports psychologists at the formative stage results in sub optimal performance of the players. Fourthly, higher education is linearly teacher focused and not student focused. Process of learning is controlled by the teacher just as process of award of degree is controlled by the university. Fifthly, contemporary teaching learning process in higher education is expensive both in terms of time and money for sportspersons as their training and competitions schedules overlap and clash with pre scheduled linear classroom requirements. Sixthly, even though some sports students enter the higher education with preferential treatment of five percent quota for sports and extracurricular activities in some universities, there is no provision in terms of providing credits for awarding degree for their subsequent performance in sports. Cricket is the most commonly followed sport not only in India but also in the major part of South Asia. The Popularity of the game has left its metropolitan niche to make forays into smaller townships and even into the rural areas. The mass following of the game, its history, close correlation with environment, mystery and mythology, sociology, peace and international understanding compels one to undertake a research work that is likely to unfold some interesting facets of this noble game.

### 1.1 Objectives

There is a dearth of research exploring the role and contribution of University of Delhi and some other universities in nurturing the talent and producing cricketers of national and international levels who in addition to having established themselves as professional cricketers brought name and fame to the university and the

country.

## 2. PROCEDURE & METHODOLOGY

### 2.1 Research Methodology

A questionnaire was constructed in consultation with the investigator and other experts in the field. The questionnaire was finalized by trial run method and 16 objective type questions were framed to collect the views of players. For statistical analysis, the descriptive statistics were used **for discovering the current state of sports and unveil the various problems faced by players.**

### 2.2 Collection and Administration of Data

The data was collected from a wide catchment area on total number of 275 subjects which were selected randomly. The Survey method was used to collect the data which was compiled not only from the students of the University of Delhi's different colleges but also from the Jamia Milia Islamia University, Delhi, four colleges (including girls), Gujarat University, Ahmedabad; Amravati University, Maharashtra; Pt. Ravi Shankar Shukla University, Raipur, Chhattisgarh and Chhatrapati Sahu Ji Maharaj University, Kanpur, Uttar Pradesh. The data includes cricketers both boys and girls, from different strata of society and from both urban and rural areas.

## 3. RESULTS & DISCUSSION

After analyzing the data, the major findings have been presented as follows:

**Table 1 Cooperation from Institutions**

RESPONSE	GWALIOR	DELHI	CHHATTISGARH	RANCHI	AHMEDABAD
<b>VERY GOOD</b>	27.78%	28.8%	46.34%	26.98%	58.62%
<b>GOOD</b>	44.44%	36%	24.40%	14.29%	34.48%
<b>AVERAGE</b>	27.78%	28%	17.07%	34.92%	6.90%
<b>POOR</b>	0	4.8%	9.76%	22.22%	0
<b>VERY POOR</b>	0	2.4%	2.44%	1.59%	0

Cooperation in terms of sports equipment such as timely arrangement of playing kit, dress, promptness in attending the sports injury and counseling enhances the field performance of players. The current system with complete absence of sports scholarships is hurting higher education both financially and academically. Therefore, cooperation from a player's college or institution in particular and from university in general is significant in optimizing a player's performance and contribution to game. Results in Table 1 indicate that this cooperation is found to be highly commendable in regions of Ahmedabad, Chhattisgarh and Ranchi. But in colleges of University of Delhi and Gwalior, poor response received from respondents is hurting the game at large and performance in particular.

**Table 2 Expectation of Academic Support from College & University**

SUPPORT VARIABLES	GWALIOR	DELHI	CHHATTISGARH	RANCHI	AHMEDABAD
<b>Attendance</b>	11.10%	31.81%	28.60%	28%	10.34%
<b>Internal Assessment</b>	5.60%	11.33%	3.60%	4%	13.79%
<b>Different Course Structure</b>	5%	15.91%	14.30%	6%	0
<b>More than one</b>	77.80%	40.91%	53.60%	62%	75.86%

Academic support from the college is studied by using three variables namely attendance, different course structure and internal assessment. Results in Table 2 show most of the respondents expect to receive the support from their respective college or university in all support alternatives. A large percentage of respondents in Delhi, Chhattisgarh and Ranchi expect support in Attendance from their respective institutions. Players have also appreciated the idea of a different sports-oriented course structure. In University of Delhi around 41 percent of the student cricketers expect the colleges to accommodate them in terms of attendance and different evaluation dates and different course structure as compared to 62 percent, 76 percent and 78 percent cricket players in universities of Ranchi, Ahmedabad and Gwalior.

**Table 3 Participation in Open Tournament conducted by their College and University**

RESPONSE	GWALIOR	DELHI	CHHATTISGARH	RANCHI	AHMEDABAD
<b>YES</b>	94.40%	84.30%	75.61%	67%	86.21%
<b>NO</b>	5.60%	15.70%	24.39%	33%	13.79%

The results of table 3 show that most of the respondents were referred by their college or university to participate in open tournaments conducted either by their college, university or any other institution. Results confirm that consistently throughout the cricket playing universities, students are exposed to open tournaments and competitions which significantly improve the confidence of the players. Universities and colleges in Gwalior, Ahmedabad and Delhi appear to be organizing these tournaments more than the other Universities. Student cricketers were also of the opinion that the longer version of the game such as three day or five day matches

proves more useful in skill enhancement of the game as compared to limited over matches.

**Table 4 Formal Training from Coaches**

RESPONSE	GWALIOR	DELHI	CHHATTISGARH	RANCHI	AHMEDABAD
YES	38.89%	81.30%	63.41%	35.48%	68.97%
NO	61.11%	18.70%	36.59%	64.52%	31.03%

Sport coaches provide the necessary training for a specific game and also impart the necessary skills required in that game. Formal training from coaches is necessary no matter how talented a player is to hone his skills further. We found a mixed response from the respondents of various regions. While around 81% of the respondents in Delhi have received formal training, only around 35% of the respondents in Ranchi and only around 39% of the respondents in Gwalior have received formal training. More than two third of the cricket playing students in Gwalior and Ranchi appear to have not undergone any intensive training. This explains the lack of sports infrastructure and training facilities in the University system.

#### 4. CONCLUSIONS

1. The most significant outcome of the investigation is that despite cricket being the most popular sport, the cricketers are lamenting the lack of suitable infrastructure, both personnel and material, in developing top cricketers in the Colleges and the Universities.
2. The data gathered points out that there is an urgent need to strengthen the present composition of the level of competition both at Inter-College and the inter-University level by adopting longer version of the format rather the present shorter version of the game. It is widely accepted that the longer format of the game helps the budding cricketer evolve basic skills of the game. These basic skills are later sharpened and nurtured by coaches when these cricketers climb up the ladder.
3. It was concluded that availability of technical expert like sports psychologists, physiotherapists, nutritionists and coaches in university and in college helps the players to enhance the performance.
4. The campus placements and other employment avenues should be available so that the players can grow in career and sports simultaneously.
5. The indifference of college/University administration towards their internal assessment and attendance is a major drawback in churning out top cricketers. The present system does not allow any flexibility in terms of time and place for academic assessment for obtaining the degree which is so imperative for securing the jobs. In fact, both (internal assessment and attendance) is the major source of worry for a cricketer. Consequently they are not able to concentrate fully on their performance on the field. Remedial measures are to be adopted to undo this malaise.
6. There is an urgent need to develop an alternate curriculum for sportspersons to take away the burden of internal assessment and attendance. At present the students are always under pressure to obtain higher percentage in their academic results. The discussion with the present and past cricketers, sports administrators and umpires have overwhelmingly suggested that the level of performance of the player on the field could constitute about 50% of the total marks. Secondly the curriculum for a cricketer should be more cricket-oriented with sprinkling of academic subjects sparingly.

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# The Relationships between Motivation Type and Elective Sports Participation among Sport Science Undergraduate Students of Wolaita Sodo University, Ethiopia

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## Abstract

The major objective of this study was to find out the motivational difference between football, volleyball, basketball, handball and athletics sport elective students. This research followed cross sectional survey study design with purposive sampling technique. The Sport Motivation Scale was used to gather data on the motivation for sport participation. Data analysis was conducted by SPSS Version 22. One-way ANOVA was computed to analyze the differences among elective sport means with manually calculated effect size and Tukey HSD post hoc was conducted to determine which groups differ from each other. The age ranges of the students were 19 to 25 with a mean age of  $22.05 \pm 1.43$  years old. There were 67 % female and 33 % male respondents. The majority of the students was assigned to their respective elective sport of their choice which accounts about 77 % and the rest 23 % were assigned to their second-choice elective sport. Of the students participated in the study, 16 (21%) identified as volleyball elective students, followed by 16 (21%) athletics elective students, 15 (20%) football elective students 14 (19%) basketball and 14 (19%) handball elective students. ANOVA analysis revealed that there was statistically significant difference between elective sport students ( $F_{4, 70}=51.30, P<0.001, \eta^2= 0.74$ ) that football sport elective students are significantly intrinsically motivated than basketball ( $p<0.001$ ), handball ( $p<0.001$ ) and athletics ( $p<0.001$ ) sport elective students. The extrinsic motivation was also found significant ( $F_{4, 70}=56.18, p<0.001, \eta^2= 0.76$ ). The extrinsic motivation mean score of football elective sport students was significantly higher than basketball ( $p<0.001$ ), handball ( $p<0.001$ ) and athletics ( $p<0.001$ ) elective sport students. Post hoc test showed that handball elective students amotivation mean score was significantly higher than football ( $p<0.001$ ), volleyball ( $p<0.001$ ), basketball ( $p<0.001$ ) and athletics ( $p<0.001$ ) elective students. Female students amotivation mean value was ( $M =16.62, SD =4.11$ ) significantly higher than the mean score of male students ( $M = 13.96, SD= 4.08$ ) at ( $t(73) =1.02, p =0.01$ ). There was positive relationship between the mean score of intrinsic motivation and extrinsic motivation, ( $r=0.822, p <0.001$ ). Negative correlation was found between intrinsic and amotivation ( $r=-0.764, p <0.001$ ) and extrinsic and amotivation ( $r=-0.762, p <0.001$ ). Generally, this study found that football elective students have higher intrinsic and extrinsic motivation followed by basketball elective students. Female students tend to be highly amotivated than male students.

**Keywords:** amotivation, elective sport, extrinsic motivation, intrinsic motivation, motivation type

## Introduction

### Self-determination and Training

Self Determination Theory (SDT) is a universal theory of human motivation and personality that has been frequently applied to the sporting world. SDT holds that three innate psychological needs must be satisfied to facilitate natural growth tendencies, self-motivation, social development and personal well-being. These needs are: Competence (being effective in dealing with a given situation), relatedness (to be socially connected and interacting with others), and autonomy (to be in control of our own life and decisions) (Ryan & Deci, 2000). A fundamental tenet of self-determination theory is that individuals engaged in an activity by choice will experience better consequences than those whose participation is less autonomous (Motivation in Elite-Level Sport; Self Determination Perspective ).

**Intrinsic motivation (IM):** This inherent propensity to actively develop skills, engage challenges, and take interest in new activities, even in the absence of external prompts or rewards is what in self-determination theory is termed intrinsic motivation. It is noteworthy that virtually all investigators concur that sport is, for most participants, intrinsically motivated (Deci & Ryan, 2007).

Intrinsic motivation involves pursuing an activity out of interest and enjoyment without external contingencies (Deci & Ryan, 2000).

**Extrinsic Motivation (EM):** Though it was originally thought that EM referred to non-self-determined behavior, it has been proposed that there are different types of EM that can be placed on a continuum of self-determination (Ryan & Deci, 2000). EM generally refers to engaging in an activity to an end, rather than for its own sake. The three types of Extrinsic Motivation are: a) External regulation: Behavior that is controlled by external sources, such as material rewards or constraints imposed by others. It is the least self-determined type of EM, b) Introjection: What was formerly an external source of motivation has been internalized such that the actual

presence of that motivation is no longer needed to initiate behavior, and c) Identified regulation: When a behavior is judged to be of value and is therefore performed out of choice. Performed for extrinsic reasons, but is internally regulated and self-determined. It is the most self-determined type of EM (Matthews, 2011)

**Amotivation:** Amotivation is defined as a state in which a person lacks the intention to behave, and thus lacks motivation (Deci & Ryan 2000). Amotivated individuals experience feelings of incompetence, expectancies of uncontrollability, and perform activities without purpose (Kalaja, 2012).

### Research Objectives

The major objective of this study is to find out the motivational difference between football, volleyball, basketball, handball and athletics elective sports trained by students.

Specific objectives of this study are: -

- To examine motivational differences between male and female graduate students regarding intrinsic motivation, extrinsic motivation and amotivation in elective sport participation.
- To determine the relationships between the motivation type subscales in elective sport participation.
- To explore whether assigning students to the elective sport has an effect on their motivation in elective sports participation.

### Hypotheses of the study

The following hypotheses were formulated: -

- There is no motivational difference between students from football, volleyball, basketball, handball and athletics elective sports.
- There is no difference in the type of motivation for sport participation among male and female students.
- There is no difference between students who were assigned and selected their elective sports.
- There is no relationship between the extrinsic motivation and intrinsic motivation in sport participation.

### Materials and Methods

#### Study design and Sampling

Cross sectional survey study design was employed by the researcher. A cross-sectional study is one that takes place at a single point in time. In effect, we are taking a 'slice' or cross-section of whatever it is we're observing or measuring. It involves using a range of participants with different backgrounds, ages and genders from the overall population (Gledhil *et al.*, 2007).

Non-probability purposive sampling technique was used to select the target population and total of 75 sport science department graduate class were participated in this study. Respondents included males and females from various ethnic, socioeconomic background and language groups who participate in their respective elective sport.

#### Data Collection Tools

A self-report questionnaire was used which was completed by all 75. No incentives were given to the students to encourage their participation. The students were given three days to return the questionnaire.

The Sport Motivation Scale (Pelletier *et al.*, 1995) was utilized to gather data on the motivation for sport participation. The 28-item multiple item rating scale which measures three dimensions of motivation, namely intrinsic motivation, extrinsic motivation and amotivation. Scale values ranged from 1 ("Does not correspond at all") to 7 ("Corresponds exactly"); the higher the mean score, the higher the level of motivation of the motivational type. The scale is comprised of 28 items with seven sub-scales. To analyze the data specific items corresponding to the motivation subscales was added together and the mean value was used for statistical analysis.

All the items that measured amotivation were reverse scored.

#### Data Analysis Methods

Descriptive statistics were calculated for the Sport Motivation Scales. A one-way analysis of variance (ANOVA) was computed to determine differences between elective sports. Tukey HSD post hoc test was used to find out difference between groups mean. Tukey HSD (honestly significant difference) test is one of the most conservative and commonly used tests (Ajai S. Gaur and Sanjaya S. Guar, 2009). Independent sample T-test was conducted to examine the difference between gender and assignment. Correlation coefficients were also computed to investigate the relationships among the five components of motivation. The statistical calculations were conducted using SPSS software, version 20, and the significance level of tests was  $\alpha < 0.05$ .

### Results

#### Descriptive statistics

The respondents were 75 sport science graduate class students who participated in the elective sport course,



namely football, volleyball, basketball, handball and athletics. The age range of the students was 19 to 25 with a mean age of  $22.05 \pm 1.43$  years old. There were 67 % female and 33 % male respondents. The majority of the students were assigned to their respective elective sport of their choice which accounts about 77 % and the rest 23 % were assigned to their second-choice elective sport.

Of the students participated in the study, 16 (21) identified as volleyball elective students, followed by 16 (21) athletics elective students, 15 (20) football elective students 14 (19) basketball and 14 (19) handball elective students.

Table 1: Motivation subscales ANOVA table of elective sports

ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
Intrinsic Motivation	Between Groups	2978.69	4	744.67	51.31	.000
	Within Groups	1015.98	70	14.51		
Extrinsic Motivation	Between Groups	5094.02	4	1273.51	56.19	.000
	Within Groups	1586.64	70	22.67		
Amotivation	Between Groups	1096.99	4	274.25	76.89	.000
	Within Groups	249.68	70	3.57		

A one-way between subjects' ANOVA was conducted to compare the difference in intrinsic motivation between elective sports. There was a significant difference between elective sport students ( $F_{4, 70} = 51.30$ ,  $P < 0.001$ ,  $\eta^2 = 0.74$ ) with Tukey HSD post hoc test revealing that football sport elective students are significantly intrinsically motivated than basketball ( $p < 0.001$ ), handball ( $p < 0.001$ ) and athletics ( $p < 0.001$ ) sport elective students. Volleyball sport elective students showed statistically significant intrinsic motivation than basketball ( $p < 0.001$ ), handball ( $p < 0.001$ ) and athletics ( $p < 0.001$ ) sport elective students. However, the other groups mean, did not significantly differ from each other.

A significant difference was found between elective sport students' extrinsic motivation level after ANOVA computation which was ( $F_{4, 70} = 56.18$ ,  $p < 0.001$ ,  $\eta^2 = 0.76$ ). Post hoc comparisons using the Tukey HSD test indicated that the extrinsic motivation mean score of football elective sport students was significantly higher than basketball ( $p < 0.001$ ), handball ( $p < 0.001$ ) and athletics ( $p < 0.001$ ) elective sport students. Whereas, a statistically significant difference was not found between other groups.

The one-way ANOVA was also conducted to determine difference regardless of amotivation subscale of the students, which was statistically significant at ( $F_{4, 70} = 76.88$ ,  $p < 0.001$ ,  $\eta^2 = 0.81$ ). Tukey HSD post hoc test showed that handball elective students amotivation mean score was statistically significantly higher than football ( $p < 0.001$ ), volleyball ( $p < 0.001$ ), basketball ( $p = 0.001$ ) and athletics ( $p < 0.001$ ) elective students. Basketball elective sport students also reveal statistically higher mean score than football ( $p < 0.001$ ) and volleyball ( $p = 0.002$ ) elective students. Whereas, volleyball elective sport students have statistically significant mean score value that football ( $p < 0.001$ ) elective sport students. Athletics sport elective students also showed significantly higher amotivation subscale than football ( $p < 0.001$ ) and volleyball ( $p = 0.002$ ). Nevertheless, athletics and basketball elective sport students' amotivation mean, did not show statistically significant difference from each other ( $p = n.s$ ).

Independent sample t-test was conducted to determine motivational differences between sex of students. The equality of variance was checked by Levene's test for equality of variances which was tenable with significance value of 0.211, 0.567 and 0.414 for intrinsic motivation, extrinsic motivation and amotivation respectively. However, statistically significant difference between the mean of male and female was detected only for amotivation subscale ( $t(73) = 1.02$ ,  $p = 0.01$ ). Female students amotivation mean value was ( $M = 16.62$ ,  $SD = 4.11$ ) significantly higher than the mean score of male students ( $M = 13.96$ ,  $SD = 4.08$ ). The result of this study is not consistent with (Heerden, 2014) who reported no significant difference in the type of motivation for sport participation between male and female Sport Science students. Whereas, the intrinsic motivation ( $p = 0.31$ ) and extrinsic motivation ( $p = 0.43$ ) mean score for male and female students was not significantly different from each other. This finding is consistent with the result found by (Heerden, 2014).

Table 2: Independent sample t-test for assignment

	Levene's Test for Equality of Variances		T-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Intrinsic motivation			5.85	69.12	0.000	7.68	1.31	5.06	10.29
Extrinsic motivation			6.65	65.03	0.000	11.17	1.68	7.82	14.53
Amotivation	3.722	0.06	-6.20	73	0.000	-5.40	0.87	-7.13	-3.66

An independent sample t-test was also conducted to compare intrinsic motivation, extrinsic motivation and

amotivation scores of students assigned to their first-choice sport and students who were assigned to their second-choice sport. Except for amotivation (sig. = 0.06) the equality of variance test was not met for others. Therefore, statistics of equal variance not assumed was considered for interpretation.

Accordingly, the intrinsic motivation mean score was significantly different between the two groups ( $t(69.12) = 1.02, p < 0.001$ ) that the mean score of students assigned to their first-choice sport ( $M = 56.28, SD = 7.27$ ) was significantly higher than the mean score of students assigned to their second-choice sport ( $M = 48.60, SD = 4.03$ ). The magnitude of the difference in the means (mean difference = 7.67, 95% CI: 5.06 – 10.29) was large (eta squared = 0.32).

Similarly, the extrinsic motivation mean score of students assigned to their first-choice sport ( $M = 57.96, SD = 8.88$ ) was significantly higher than students assigned to their second-choice sport ( $M = 46.78, SD = 5.47$ ) with statistics about ( $t(65.03) = 6.65$ ). The degree of the difference in the means (mean difference = 11.17, 95% CI: 7.82 – 14.53) was large (eta squared = 0.38).

Independent sample t-test was also conducted to compare amotivation mean scores. Students assigned to their second-choice sport exhibited significantly lower mean score ( $M = 14.07, SD = 3.73$ ) than students assigned to their first-choice sport ( $M = 19.47, SD = 2.77$ ) at ( $t(73) = -6.20$ ). The magnitude of the difference in the means (mean difference = -5.40, 95% CI: -7.13 – -3.66) was large (eta squared = 0.35). Therefore, students assigned to their first choice amotivation were lower than students assigned to their second-choice elective sports.

Table 3: Relationship between motivation subscales

		Intrinsic	Extrinsic	Amotivation
Intrinsic motivation	Pearson Correlation	1	.822**	-.726**
	Sig. (2-tailed)		.000	.000
	N	75	75	75
Extrinsic motivation	Pearson Correlation	.822**	1	-.764**
	Sig. (2-tailed)	.000		.000
	N	75	75	75
Amotivation	Pearson Correlation	-.726**	-.764**	1
	Sig. (2-tailed)	.000	.000	
	N	75	75	75

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

To determine the relationship between the three subscales of sport motivation Pearson product moment correlation analysis was conducted. There was a positive correlation between the intrinsic and extrinsic motivation subscales,  $r = 0.82, p = < 0.001$ , with an  $R^2 = 0.67$  (67%),  $N=75$ . There was non-significant correlation of  $r = -0.73$  ( $p = n.s$ ) between intrinsic motivation and amotivation. Similarly, the correlation between extrinsic and amotivation was not significant,  $r = -0.76, (p = n.s)$ .

### Discussion

The first goal of this paper was to examine the motivational difference between football, volleyball, basketball, handball and athletics elective sports trained by students. This research finds out that football sport elective students has higher intrinsic motivation than basketball, handball and athletics sport elective students. Similarly, the extrinsic motivation mean score of football elective sport students was also significantly higher than basketball, handball and athletics elective sport students. When it comes to amotivation handball elective students mean score was higher than football, volleyball, basketball and athletics elective students. Therefore, students who engage in handball elective sports are highly amotivated than other elective sports.

### Conclusion

Generally, this study found that football elective students has higher intrinsic and extrinsic motivation than the rest of elective sport students. Whereas, handball sport elective students are highly amotivated than the other groups. The amotivation score of female students are also higher than male students. Finally, students assigned to their first choice elective sport has higher intrinsic and extrinsic motivation than students assigned to their second-choice elective sports. The amotivation of second-choice elective sports students were higher than students assigned to their first choice elective sports.

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# Regression Analysis of Beijing Hotels Customer Satisfaction based upon Data from TripAdvisor

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## Abstract

Big data is being used by many organizations to make decisions about the efficiency and effectiveness of their operation. One of the data sets that are used most frequently is TripAdvisor. This article explores the advantages and disadvantages of using such a data set. The case study chosen was the hotel services in Beijing, China. A new approach is being proposed in which baseline information is used on a regional basis to establish the uniqueness of a region. Many times the data does not give the proper perspective because it incorporates the larger perspective and does not provide for regional differences. The other dimension developed in the article is a statistical approach that tries to define a better understanding instead of using a descriptive method.

**Keywords:** Big data, TripAdvisor, Beijing, Statistical analysis

## Introduction

The core of most evaluation systems are based upon guest input and trying to identify the primary factors that influence client's decision processes. Many hotel operations have their own assessment system, which are used heavily to make changes to operations or to justify the quality of their services. These evaluations are often spurious because they have an element of self-reporting. Many guests are prompted on what type of response to provide and sometimes even given rewards for providing evaluations.

There are obviously many studies that have been completed in trying to define the influences and how to make the best management decisions. (Bertan et al., 2015; Lee et al., 2014) Big data, such as TripAdvisor, may provide a window to help understand this paradox or dilemma. The reason this type of data may help is that it is unsolicited and critical. There are obvious problems with this type of data regarding not being representative of the general population that frequent a hotel, but may be skewed toward people who had a very good experience or a very bad experience. It is essential to understand the limitations of this type of data and place it in perspective. The other shortcoming of this type of data is that most of it is not statistically analyzed to provide in-depth understanding. This type of data must not be seen as an end in itself, but only one source that gives understanding. It is also reflective of data that has a Geo position. TripAdvisor has data that is divided into the smallest segment based upon location. It must be recognized that there are different influences in diverse geographic locations. This type of data has strengths and weaknesses, but provides a different perspective because of the amount and specific nature of the data.

Hotel information from TripAdvisor gives the best data in regard to reflective influences in terms of decisions from a diversity of respondents. (Lee, 2012) With a greater number of respondents, there tends to be a centroid factor that operates and helps to explore the extremes of opinions. The primary element is not only the data, but the type of analysis that will yield effective results. Many studies only look at one particular aspect and

perform a detailed analysis. This type of approach often leads to spurious relationships. (Mark, 2013) It must also be noted that a multivariate analysis allows for the inclusion of a large number of variables that can be manipulated in terms of a predictive framework. (Bertan et al., 2015) Given the variance in the data by geographic location and audience type, the data will vary significantly. Baselines have to be established in order to gain a proper perspective toward common themes and influences.

### **Social Media/TripAdvisor**

The first question that really must be answered is about the quality of the data found on big data sources such as TripAdvisor. The data obviously has limitations. (Kim et al., 2016; Lawrence, and Perrigot, 2015) One of the first concerns is about the representativeness of the data regarding client's responses. Is there a difference between those individuals that respond and those that do not respond? It is often assumed that the clients responding represent the population. This assumption is often overlooked. It is difficult to have a comparison between respondents and non-respondents. Comparisons need to be made so that some indicator can be developed to answer this question and responses adjusted accordingly. Another question is the data pure or has it been contaminated with input from marketing professionals trying to boost ratings? (Thanh, 2015) The data has to be screened and these types of suspicious responses deleted from the data source. These ratings from TripAdvisor have been shown to have a significant influence upon decision-makers who reviewed the data. It is essential to have some type of filter or screening of the data before analysis. Many big data sources are proprietary and the companies have a companion data set that allows for comparisons with TripAdvisor. This will give some type of indication about the reliability and validity of the data. (Wilson, 2012) Comparisons can also be made by establishing baselines and analyses that have been completed on a time period format. This will also help to provide trends and allow the organizations to determine when significant changes have occurred in the client's decision-making. Another concern is that individuals do not express their true feelings. (O'Neil, 2009) Those that tend to respond are inclined to be at one extreme or the other and they have a propensity for wanting to make comments. There is also a concern about respondents not having criteria on which to base their assessments. Most of the scales are an arbitrary form that has no real meaning except to the individual responding. Much of the criticisms about TripAdvisor are the same problems that are identified with any measurement system. It is recognized that TripAdvisor is not a highly diagnostic assessment instrument. It is commercially designed and only to give the reader a general assessment. Another recent concern is that TripAdvisor has been developed into a commercial website. Previously, it was thought of as a location where objective information could be obtained without the bias of potential sponsorship. (Fuller, 2013) With the site selling product, there are individuals who are very suspicious now of the ratings.

### **Hotels**

Most of the information regarding hotels and satisfaction is very clear. Those with the higher star rating are those that receive the better satisfaction ratings. High ratings are obviously due to amenities and basic services. (Gadekar and Gadekar, 2016) The more the amenities and services, the better the ratings. There is not a high direct correlation among these dimensions. What is being suggested is that if a hotel follows this general rule it may or may not result in higher ratings. (Gadekar and Gadekar, 2016) Ratings are directly related to understanding the individual audiences that are to be served and providing the necessary amenities and services to achieve success. This type of approach goes beyond the facility and is directly related to the personnel services. (Coughlan, 2014) These individuals, if they go beyond the ordinary to provide extraordinary service, the ratings are extremely high. It is the marriage of amenities and types of service with the personnel to deliver a well-organized program that is extraordinary, that will make the difference in achieving success. (Allan, 2016) Size does not seem to make a difference, but it is the individualization of the hotel's program that does make a difference. It must be remembered that in a foreign country that the amenities and types of service that make a quality experience are quite different. (Ara, 2013) Many times individuals expect the same services as home, but do not find that type of experience. Those providing the service must be culturally sensitive and provide the necessary environment that the guest would expect from their home community.

### **Purpose**

As a case study, Beijing hotels, Bed and Breakfast, and Inns were examined in terms of traveler satisfaction and important influences that affect manager's decision-making. Satisfaction Ratings were recorded as: five as excellent, four as very good, three as average, two as poor, and one as terrible. Satisfaction was the response or dependent variable. The primary predictor or independent variables were: Average Rating (A calculated variables based upon the average of each predictor variables. This is a contrived variable to reflect the variance in scores.), Type of Traveler, How Reservation Made, Positive Attitude, Type Facility (Number of Stars), Home Community of Client, Immigration Status, Location of the Facility, Quality of Sleep, Comfort, Value of Quality and Price, Cleanliness, and Number in the Party. Dummy variables were created where qualitative data was

provided. There were originally 24 variables and they were reduced to 14 (Dependent and Independent). Variables such as phone number, address, etc. were deleted because they could not be incorporated into the statistical modeling. Missing data was deleted or omitted from the study.

### Methodology

A Generalized Linear Model (GLM) was initially used to analyze the data. This analysis did not provide suitable results because of the categorical nature of some of the response variables. Average Ratings were used. This did not provide the necessary detailed information as it relates to the impacts upon Satisfaction Ratings. These results were not reported because the data did not provide appropriate details. A Linear Regression was used because this model is more straightforward and allows for more depth of interpretation given the data set. A Classification and Regression Tree (CART) were applied to the data. CART represents non-parametric modeling which is in contrast to the parametric modeling of the Linear Regression. The goal of these contrasting analyses was to identify significant variables and their impact upon the prediction related to satisfaction.

### Linear Regression Modeling

The first step in the analysis was the establishment of the strength of the relationships among the variables. Pearson's Correlation Test showed strong relations among Satisfaction Rating and Average Rating, Satisfaction Rating and Service, Satisfaction Rating and Comfortability, Comfortability and Service, Comfortability and Average Rating, Service and Average Rating. There is a high degree of multicollinearity among the variables.

A forward regression, a backward regression, and a stepwise regression were performed in order to identify the best model for predictive satisfaction. Of the models, the backward elimination provided the best model with the highest Coefficient of Determination ( $R^2$ ) at 88.94%. (Table 1) This was a five variable model:

Total Rating =  $-0.0753 - 0.0567 * \text{Reward} + 0.0610 * \text{Comfortable} + 0.1383 * \text{Service} + 0.0433 * \text{Price to Quality Ratio} + 0.7833 * \text{Average Rating}$ .

The model using 14 variables had a similar Coefficient of Determination. The Linear Regression Model met all four assumptions of normality, constant variance, linearity, and independence.

Interactions were examined with the matrix plot and no significant interactions had to be added to the model. There may be a potential problem with outliers and influential observations. When the potential outliers were examined: Golden Street Business Hotel (629 observations), Guest House (969 observations), Harbor Inn (1014 observations) Dongfang (1045 observations), and LaijinLifa Hotel (1047 observations), it was found that these outliers had no influence upon the model.

### Interpretation

An examination of the coefficients gave a relative indication of the importance of the variables. The beta coefficients were standardized. All coefficient estimates were positive with the exception of reward.

While examining the Average Rating and holding the other variables constant, the Satisfaction Score increase by an average of 0.7883.

While examining the Price to Quality Ratio and holding the other variables constant, the Satisfaction Index increased by an average of 0.0433.

While examining the Service Component and holding the other variables constant, the Satisfaction Score improved by an average of 0.1383.

While examining the Comfort Complement and holding the other variables constant, the Satisfaction Index increased by an average of 0.0610.

While examining the Reward Component and holding the other variables constant, the Satisfaction Score decreased by an average of 0.0567

The importance of the positive correlated variables were: Average Rating, Service, Comfort, and Price to Quality Ratio. The negative correlated variable was the Rewards Program.

An unexpected result was a negative correlation of the Rewards Program. This is very difficult to explain as one would expect that individuals who have greater rewards would have a higher satisfaction level. This was not found to be true and represents an anomaly and suggests that rewards have a negative impact upon satisfaction. Those that receive more rewards may have higher standards and therefore expect more from their experience. When they do not receive these better treatments, there is some diminishing of satisfaction because the experience did not meet expectations.

Most studies involving attributes or amenities usually point to a cluster of elements that are directly related to satisfaction. This is also true in this study dealing with Service, Comfort, and Price to Quality Ratio. The interesting finding in the Beijing market is that Service is very important as compared to the other variables. For the international visitor, this is a must for the traveler to feel at home. This does not diminish the importance of the other elements.

### Classification and Regression

When the Classification and Regression Tree Modeling was used to analyze the data, only the Average Rating was selected by the CART analysis for generating a classification tree. Since this is a contrived variable it would be of little use in the analysis and provide no additional insight. CART is a non-model, based upon clustering and prediction. It sometimes leads to a different type of insight and understanding other than the Linear Regression.

### Conclusion

The results are straightforward in that increasing Average Rating, Service, Comfortability, and Price to Quality Ratio will increase satisfaction. One of the obvious links in application of this model is once satisfaction is increased profits and retention of clients can be increased. The obvious limitation of the model is that it only examines linear relationships and there could be some better curvilinear models. These curvilinear models may provide greater understanding because it allows for more complicated or complex analysis. It is obvious that the other limitation of the model is that it is specific to Beijing. This model does provide baseline, and recognizes the difference in geographic regions. With a high degree of multicollinearity, those hotels that seek top positions in the market have all of the attributes that clients seek.

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**Table 1. Backward Elimination**

Backward Elimination of Terms

$\alpha$  to remove = 0.1

**Analysis of Variance**

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	5	220.358	44.0716	1704.05	0.000
Reward	1	0.197	0.1970	7.62	0.006
Comfortable	1	0.406	0.4062	15.70	0.000
Service	1	1.473	1.4726	56.94	0.000
PricetoQualityRatio	1	0.203	0.2025	7.83	0.005
AverageRating	1	31.983	31.9831	1236.65	0.000
Error	1059	27.389	0.0259		
Lack-of-Fit	1054	27.389	0.0260		* *
Pure Error	5	0.000	0.0000		
Total	1064	247.746			

**Model Summary**

S R-sq R-sq(adj) R-sq(pred)  
 0.160819 88.94% 88.89% 88.75%

**Coefficients**

Term	Coef	SECoef	T-Value	P-Value	VIF
Constant	-0.0753	0.0459	-1.64	0.101	
Reward	-0.0567	0.0206	-2.76	0.006	1.14
Comfortable	0.0610	0.0154	3.96	0.000	2.93
Service	0.1383	0.0183	7.55	0.000	3.65
PricetoQualityRatio	0.0433	0.0155	2.80	0.005	2.18
AverageRating	0.7833	0.0223	35.17	0.000	4.25

**Regression Equation**

TotalRating = -0.0753 - 0.0567 Reward + 0.0610 Comfortable + 0.1383 Service  
 + 0.0433 PricetoQualityRatio + 0.7833 AverageRating



# Assessing the Potentials of Epoto Cave as an Ecotourism Asset in Abi Local Government Area of Cross River State, Nigeria

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## Abstract

This research examined the potentials of Epoto Cave as an ecotourism asset in Abi Local Government Area of Cross River State. Three communities in Abi Local Government Area were used for this study. Three hundred and seven copies of questionnaire were randomly distributed to residents within the sample framework. The research findings shows that Epoto Cave has the potential for ecotourism development in the area. It was discovered that threat to local culture, exposure of community natural resources among others were community concerns towards the development of Epoto Cave for ecotourism. The data collected shows that some basic amenities such as effective road network, electricity and adequate security network in the area are needed to ensure the development of Epoto Cave. It was also noticed that the development of Epoto Cave can enhance community development as it would create investment opportunities, employment generation and at the same time lead to emergence of other small scale enterprises in the area. However, the neglect of the Epoto Cave for ecotourism development by government and private sector have caused increase in the rate of anthropogenic activities and socioeconomic activities that have degraded the entire aesthetics of Epoto Cave and its environs. Therefore, an effective mechanism must be put in place in order to ensure the development of Epoto Cave for ecotourism activities if the potential must be reaped.

**Keywords:** Ecotourism, Epoto Cave, Development, Potential, Pristine ecosystem

## 1.0 Introduction

Ecotourism as one of the segment of tourism that is fast growing has encouraged destination development. Many people in the world have great passion for ecotourism potentials, especially individuals whose destinations are enriched with ecotourism potential (Ingram, 2001). Ecotourism which involves travel to unique and pristine areas has the capacity to reduce the danger and threat which may be imposed by conventional tourism to protected or natural areas (Drumm, 2004). Ecotourism potentials such as lakes, mountains, waterfalls among others, have greatly influenced ecotourism activities. For indigenous communities within these laudable potentials, ecotourism has become a major catalyst and a doorway to the global economy as most of the catchment communities reap from ecotourism (Mokoro, 2012).

Epoto Cave as part of nature tourism and as an ecotourism asset has the capacity to influence ecotourism in Cross River State. Its influence can boost the development of other tourism industries such as the hospitality industry. Many studies have shown that existing ecotourism potentials in a destination can generate multiplier effect on such a destination (Leathryn, 2013). For instance, the development of ecotourism potentials in Cross River State such as caves, waterfalls, lakes have created employment for the residents and income from ecotourism activities. Apart from this, it also creates investment opportunities which enhances the destination development and also increases the flow of visitors to the destination (Alpizor, 2006; Hearne and Santos, 2005; Naidoo and Adamawicz, 2005). However, the Epoto Cave which harbours great ecotourism potentials is yet to be given attention by both the public and private sector towards its development, perhaps due to lack of infrastructure and the location of the cave. Studies have shown that most of the ecotourism potentials are usually located within indigenous territories, normally in the peripheral areas away from mainstream development (Zeppel, 2013). The Epoto Cave which is one of the prestigious ecotourism potential in the area has been neglected, abandoned and the surrounding environment depleted due to anthropogenic activities. It is on this note that this paper wishes to assess the potentials of the Epoto Cave as an ecotourism asset with specific reference to evaluating community perception to Epoto Cave development, the needed amenities for Epoto Cave development, the expected socio-economic impact of Epoto Cave development on the host communities and to weigh and rate impact of socio-economic activities around the Epoto Cave and its environs.

## 2.0 Literature review

### *Ecotourism development*

Ecotourism development in Cross River State has attracted interest not only as an alternative to mass tourism but as a means of income and revenue generation (Schaller, 2010). The development of ecotourism according to scholars, create economic benefits not only to local communities but also to stakeholders in the field of tourism

and ecotourism development (ZsuZsa, 2013). The development of ecotourism in Nigeria has tremendously engaged majority of the people in socio-economic activities especially in catchment communities where these ecotourism potentials are located. Communities within these zones where the ecotourism potentials are located have diversified their local economy as most of the people provide certain services that are needed by the various visitors (Aniah and Eja, 2010). The protected areas which are usually ecotourism zones have attracted mass tourism and at the same time government attention is always present. The ecotourism potentials such as monoliths, vegetation cover, mountains, caves among others have influenced large scale trade especially in many state capitals (Paola, 2013). Caves as tourism potential have pulled over 25 million visitors every year to some destinations and with estimated expenditure of USD 2million. The increase in visitors' arrival to ecotourism potentials do not only provide job opportunities to residents but also increase the income base of the locals. Studies have shown that most countries with ecotourism potentials are seriously engaged in ecotourism development in order to boost their economic growth and development (Lundberg, 2012). In Cross River State, the initiative by the government to diversity her economy necessitated the development of ecotourism potentials into a source of natural tourism which eventually would enhance and also improve the quality of lives and eradicating hardcore poverty in the area (Udvoc, 2006). In the early 20<sup>th</sup> century, the potentials of caves and the environmental aesthetics around caves and other information on caves had attracted numerous visitors to ecotourism destinations (Yavuz, 2007).

Ecotourism development has the capacity to generate other multipliers which can enhance and sustain the livelihood of the indigenous people and also ensure the sustainability and conservation of the natural resources (Okechi, 2009). The sustainability of ecotourism potentials is also rested in the interaction between the various stakeholders which include the local community (D'Angelo, 2010). An effective ecotourism depends on active participation of the various stakeholders in the field of tourism and ecotourism development (Schaller, 2010).

In Cross River State, most of the tourists and visitors stay several months in Calabar the state capital for the purpose of observing ecotourism potentials. Visitors stay in these communities where the ecotourism potentials are located have attracted community interest towards ecotourism development which in turn create investment opportunities which is driven by private sector in the area (Eja & Ndoma, 2011). Studies conducted on ecotourism in Cross River State show that ecotourism development in the state has increased visitors' inflow in the urban centers when certain comfort and satisfaction are obtained especially during their leisure period (Eja and Aniah, 2009).

In assessing the contribution of ecotourism development in Cross River State, Eja & Abonor (2017) emphasized that government and private sector must provide the basic needed facilities such as roads, electricity and others so as to attract and ensure the sustainability of ecotourism activities in the area. These basic infrastructures, according to, Amechi and Judith (2009) would generate other multiplier effects that would enhance the livelihood of the local people socio-economically.

The Epoto Cave in Abi Local Government Area has high historical and cultural importance as most of the communities in the area originated from the Epoto cave. This historical and cultural value of Epoto Cave has led to the conservation and preservation of Epoto Cave (Sherwood and Simak, 2001). The Epoto Cave is a unique ecotourism feature which hosts rich fauna and flora species (Pipan and Culvar, 2013). The Epoto Cave and its environs have great natural resources and also a unique habitat which are used for studies and for medicinal purposes (Borton and Northup, 2007), although Epoto Cave has not been used for religious and other purposes as compared to other caves in most tourism destinations which are usually used for religious and healthcare purposes (Cigna & Forti, 2013).

### **3.0 Methodology**

This research is anchored on assessing the potentials of Epoto Cave as an ecotourism asset in Abi Local Government Area. Three communities were used in this study, which include Usumutong, Ebijakara and Ediba. Three hundred and seven sample size was used, of which 143 questionnaires were distributed in Usumutong, 22 in Ebijakara and 142 in Ediba. These copies of questionnaire were distributed to household heads using purposive sampling technique. The purposive sampling technique was adopted due to the nature and type of data involved in the study. The likert scale was used to weigh the socio-economic activities around the Epoto Cave and its environs. The likert scale was within 1 – 5 points with 1 – indicating very minor impact, 2 – minor impact, 3 – moderate impact, 4 – major impact, 5 – severe impact. The weighing rating of each of the points was also rated as proposed by Mamun and Mitra (2012), showing that 1 – 0.20, 2-0.40, 3 – 0.60, 4 – 0.80, 5 – 0.100. The questionnaire design contained information such as community perception to Epoto Cave development, the needed amenities for Epoto Cave development, the expected socio-economic impact of Epoto Cave development. One hypothesis was stated in attempt to examine the independent or dependence of the various villages' perceived threat to Epoto Cave development in Abi Local Government Area. This hypothesis was tested using chi-square which helps to show community perceived threats to Epoto Cave development for tourism.

#### 4.0 Results and Findings

##### 4.1 Community perceived threat to Epoto Cave development

The community perceived threat to the Epoto Cave development as presented in Table 1 indicates that invasion of community privacy by visitors and rise in social vices and crime had community perceived threat values of 22.48 percent and 22.80 percent. It was also observed that threats to local culture and increase in local population were also community perceived threat to Epoto Cave development with values of 20.20 percent and 13.03 percent. However, it was discovered that pollution imported by visitors, rise in the cost of living and diversion of attention from agriculture were the least community perceived threat to Epoto Cave development in the area with values of 2.23 percent, 2.93 percent and 5.54 percent respectively.

Table 1

Community perceived threat to Epoto Cave development

S/N	Community perception	Usumutong	Ebijakara	Ediba	Total no. of respondents	Percentage
A	Threats to local culture	30	3	29	62	20.20
B	Increase in local population	21	2	17	40	13.03
C	Invasion of community privacy by tourists	31	5	33	69	22.48
d	Exposure of the community natural resources to exploitation	18	2	7	27	8.79
E	Rise in social vices/crimes	30	5	35	70	22.80
F	Diversion of attention from agriculture	7	1	9	17	5.54
G	Pollution imported by tourists	3	3	7	13	4.23
H	Rise in the cost of living	3	1	5	9	2.93
	Total	143	22	142	307	100

Source: Field Survey, 2016

##### Test of hypothesis

The result of analysis on the community perceived threat as expressed by the community residents towards the development of Epoto presented in Table 2 shows a calculated value (cal.  $x^2$ ) of 17.37, lower than the table value (crit.  $x^2$ ) of 23.685 at 0.05 level of significance. Therefore, the alternative hypothesis  $H_1$  was rejected and the null hypothesis  $H_0$  accepted. This result indicates that community perceived threat of Epoto Cave development occur by chance, meaning that the development of Epoto Cave in the area may or may not cause problems in the area.

Table 2

Statistical analysis of the hypothesis

Usumutong	Ebijakara	Ediba	N	Cal. $x^2$	df	Crit. $x^2$	Sig.
30	3	29	62				
21	2	17	40				
31	5	33	69				
18	2	7	27	17.37	14	23.685	0.05
30	5	35	70				
7	1	9	17				
3	3	7	13				
3	1	5	9				
143	22	142	307				

Source: Author's field work

##### The needed amenities for Epoto Cave development

The needed amenities for Epoto Cave development as an ecotourism asset presented in Table 1 Shows that 42.35 percent of the sampled population agreed that electricity is needed for Epoto Cave development followed by road network with a value of 27.69 percent while 12.70 percent attest to the fact that the provision of pipe-borne water can encourage the development of Epoto Cave.

It was also discovered that 8.47 and 4.23 percent agreed that the provision of health post/centre and security post can help to encourage the development of Epoto Cave as an ecotourism asset in the area. The sampled population also indicate that 1.95 percent and 1.63 percent of the sampled population opine that construction of bridges, culverts and establishment of guest houses and lodging facilities can help develop the Epoto Cave in the area with 0.97 percent while others attest to the fact that amenities if provided can also encourage the

development of Epoto Cave in the area.

Table 3

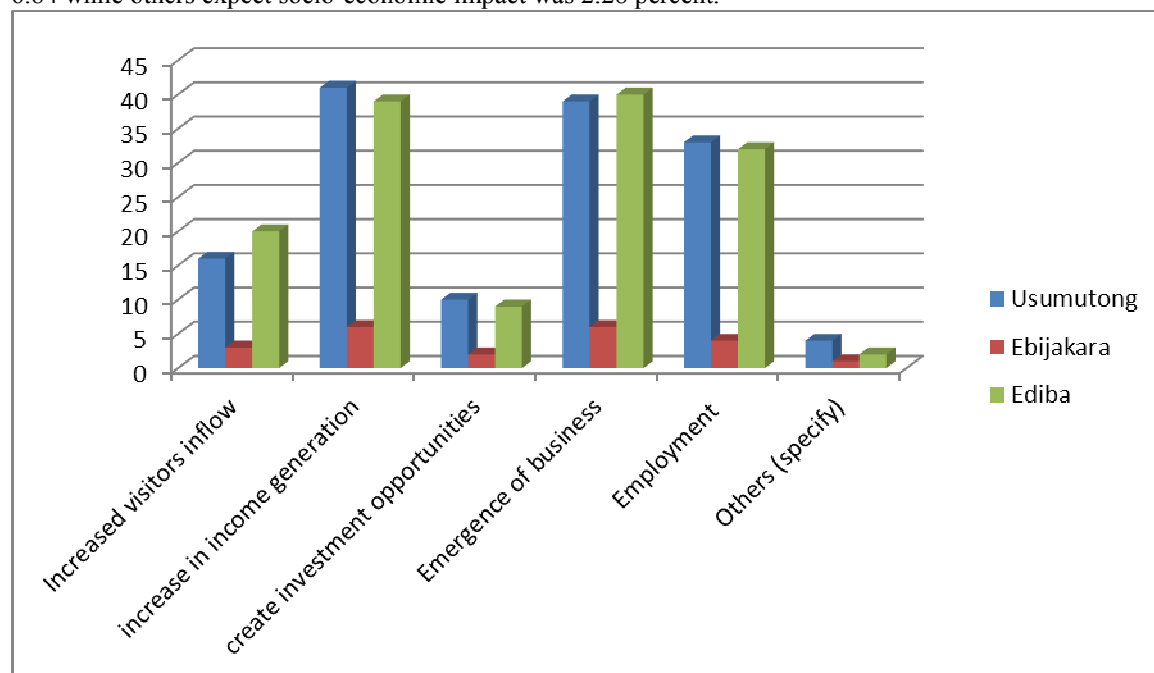
The needed amenities for Epoto Cave development

S/N	Amenities	Usumutong		Ebijakara		Ediba		Total no. of respondents	Percentage
A	Electricity	58	40.56	11	50	61	42.96	130	42.35
B	Pipe-borne water	16	11.19	2	9.09	21	14.79	39	12.70
C	Road network	46	32.17	3	13.64	36	25.35	85	27.69
d	Guest houses/lodges	2	1.40	0	0.0	3	2.11	5	1.63
E	Health posts/centres	10	6.99	2	9.09	14	9.86	26	8.47
F	Security post	6	4.20	3	13.64	4	2.82	13	4.23
G	Bridge/culverts	3	2.10	1	4.55	2	1.41	6	1.95
H	Other amenities	2	1.40	0	0.0	1	0.70	3	0.97
Total		143	100	22	100	142	100	307	100

Source: Author's fieldwork, 2016

### Expected socio-economic impact of Epoto Cave development

The expected socio-economic impact of the Epoto Cave development on host community presented in the Fig. 1 below indicates that the development of Epoto cave would lead to increase in income generation and emergence of business as observed with a high value of 28.01 percent and 27.68 percent followed by employment generation with value of 22.48 percent. It was also discovered that the development of Epoto Cave would result in increase in visitors' inflow as observed with a value of 12.70 percent. However, it was discovered that creation of investment was the least expected socio-economic impact of Epoto Cave development with a value of 6.84 while others expect socio-economic impact was 2.28 percent.



### Rating impact of socio-economic attributes

The rating impact of the socio-economic activities around the Epoto Cave shows that the underlisted socio-economic activities have major and severe impact on the Epoto Cave and its environs as observed with values of 0.80 which shows great impact on the ecosystem. This result was applicable in almost the three communities even though fishing and source of water in the area seems to have moderate and very minor impact on the development of the Epoto Cave and its environs with values of 0.20 and 0.40 across the three communities. However, the implication of this result indicates that these various socio-economic activities if they are not monitored would affect Epoto Cave development for ecotourism activities.

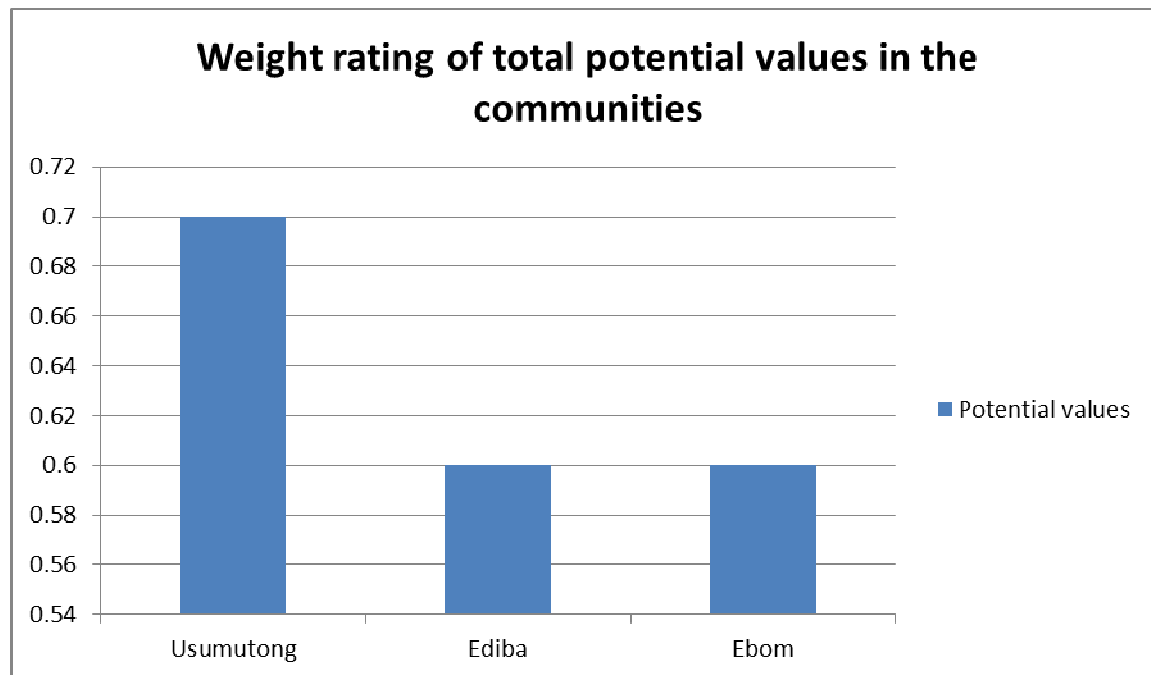
Table 4:  
 Table rating of socio-economic activities around the Epoto Cave and its environs

S/N	Socioeconomic activities	Very minor impact	Minor impact	Moderate impact	Major impact	Severe impact	Grade P <sub>1</sub> - P <sub>0</sub>	Potential variables
	Community A: Usumutong							
P <sub>1</sub>	Farming	15	31	20	98	103	0.80	0.7
P <sub>2</sub>	Fishing	104	102	19	39	4	0.20	
P <sub>3</sub>	Source of water	20	24	57	108	98	0.80	
P <sub>4</sub>	Hunting/Trapping	23	19	35	109	121	0.80	
P <sub>5</sub>	Wood logging/lumbering	17	12	31	121	126	0.80	
P <sub>6</sub>	NTEPs collection	9	10	26	161	101	0.60	
	Total							
	Community B: Ediba							
P <sub>1</sub>	Farming	31	111	31	21	131	0.80	0.6
P <sub>2</sub>	Fishing	101	94	21	41	51	0.20	
P <sub>3</sub>	Source of water	19	120	32	124	12	0.40	
P <sub>4</sub>	Hunting/Trapping	15	19	16	133	124	0.60	
P <sub>5</sub>	Wood logging/lumbering	18	15	26	119	129	0.80	
P <sub>6</sub>	NTEPs collection	11	16	22	132	126	0.80	
	Total							
	Community C: Ebom							
P <sub>1</sub>	Farming	16	20	29	113	129	0.80	0.6
P <sub>2</sub>	Fishing	103	83	19	53	49	0.20	
P <sub>3</sub>	Source of water	21	130	28	110	18	0.40	
P <sub>4</sub>	Hunting/Trapping	18	10	10	129	140	0.80	
P <sub>5</sub>	Wood logging/lumbering	12	17	11	128	139	0.80	
P <sub>6</sub>	NTEPs collection	12	15	19	139	122	0.80	
	Total							

Source: Author's fieldwork, 2016

The weighting rating of the total potential values of the impact of socio-economic activities in the various communities as shown in the figure 2 below, shows that there is no significant variation in the potential weighting values in the communities. Besides, it was observed that all the socio-economic attributes that take place in the Epoto Cave and environment have greatly impacted on Epoto Cave as observed in Table 5 with potential values of 0.7 and 0.6 respectively, indicating major and severe impact. Accordingly, the total potential value of 0.63 was obtained as aggregate of potential values in the socio-economic activities in the area indicating that all the socio-economic activities have both major and severe impact to the development of Epoto Cave as ecotourism asset in the area.





### Conclusion

The data collected indicates that Epoto Cave is one of the ecotourism potentials which has the capacity to change the fortunes of the people in the area. It was discovered that the development of Epoto Cave can influence various socio-economic opportunities ranging from employment to income generation. Apart from this, other opportunities accrue to the development of Epoto Cave in the area such as emergence of small scale enterprises and creation of investment opportunities. It was observed from the data collected that certain social amenities are needed to be provided in order to boost the development of Epoto Cave in the area. However, in spite of the significant impact expected from the development of Epoto Cave, community perceived threats have been observed, such as threat to local culture, exposure of community natural resources, pollution among others in the area. The data collected shows that the socio-economic activities around the Epoto Cave have seriously depleted the fauna and flora and at the same time reducing the aesthetics of the cave and its environs.

### Recommendations

Epoto Cave is one of the great ecotourism potential which is yet to be harnessed and developed by both the government and private sector. In order for the viability of Epoto Cave to be developed and utilized, the following recommendations are hereby put forward:

- The state government and private sector should embark on effective consultation with the communities so as to build confidence with the local communities within the ecotourism zones.
- The development of Epoto Cave as an ecotourism asset by the government and private sector must conform with ecotourism development regulation so as to reduce community anticipated threats in the area.
- The government and private sector should allow the community to participate in the decision making and policy towards the development of the cave in the area.
- The government should educate the communities within the Epoto Cave on the benefits of Epoto Cave development as an ecotourism potential in the area.

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# Assessing the Awareness of Safety Rules in the Hospitality Industry in Ghana: A Case of Some Selected Hotels in the Accra Metropolitan Area

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## Abstract

The study sought to assess the awareness of safety rules in the hospitality industry in Ghana, with the search light on the operations of some ten Hotels in the Accra Metropolitan Area as well as the head office of the Ghana Tourist Authority. Among other objectives the study assessed the knowledge of management and employees concerning health and safety in the hotels, explored the existing rules and regulations regarding health and safety by management to protect employees, and examined the existing national policies on Health and safety in the hotel industry. In conducting the study, the researcher employed the purposive sampling technique to approach officials of the Ghana Tourist Authority as well as management members of the ten hotels for their views on health and safety. Random sampling technique was used to select respondents from the employees of the hotel. The questionnaire technique was adopted as the research instrument while Statistical Package for Social Science (SPSS) was used to facilitate the analysis of the information captured on the field. Findings of the study indicated that management members of hotels are aware of the laws on health and safety practices that should be maintained in their hotels, such information has not been readily made available to the employees. The employees however are aware of their obligation to ensure that their places of work are healthy and safe. The study also discovered that the hotel has emergency exist, fire extinguishers, first aid box etc., which are used as strategies to combat eventualities such as fire outbreaks. It is recommended that owing to the challenges tourist board faces in sanctioning hotels that default in health and safety standards as a result of political interference, highly place politicians must be educated on the need to allow formalities to prevail so as to instill discipline in the hospitality industry. Ghana Tourist Authority was also advised to organise compulsory sensitization workshop on health and safety standards for hotel employees so as to step up their awareness in modern standards for running the hotel industry. The study concluded that although hotel managers and operators are mindful of the health and safety standards required of them, they hardly disseminate such information into their employees thereby keeping them in the dark about modern standards and the national policy on hotel safety standards.

**Keywords:** Health and safety rules, hotels, Ghana Tourist Authority, purposive and random sampling technique.

## 1.0 Introduction

Hotels, restaurants, entertainment and food joints all come under the term hospitality industry in Ghana". According to Cohen and Michel (1999), the phrase covers a variety of service industries that receive a customer to service them with that of traditional 'hospitality', such as providing them food and beverages, or provision of a room and bed to sleep. It is often applied to hotels and resorts". The hospitality industry is an important industry which forms a significant part of the economy. This industry provides employment for a large number of people; both direct full-time employees as well as part-time and contract staff. In providing a high standard of service to customers, the pace of work can be fast and the working hours long. Providing a safe and healthy working environment contributes to the wellbeing, morale and productivity of employees. The hospitality industry employs a variety of staff that could be exposed to a variety of safety and health hazards at work depending on the specific tasks they perform (Alazab, 2003). They may be exposed to the risk of musculoskeletal disorders and injuries and to health hazards such as chemicals, noise and thermal stress.

There is also the risk of accidents from slips, trips, knocks and falls, cuts, burns and scalds, electrocution and even fire and explosion. Occupational accidents and diseases can result in suffering, sickness, absenteeism, productivity loss, disability or even death. All these can be prevented. The Health and safety philosophy could be traced to the fall of man as recorded in Genesis Chapter 3. In the 21<sup>st</sup> verse "the Lord God made garments of skin for Adam and his wife and clothed them" (New American Standard Bible). Subsequently, in verse 23, the Lord banished them from the Garden of Eden to work the ground. From this biblical record, God was the first to provide personal protective equipment (PPE) to man. Health and safety therefore began with God. In times past, employers were not concerned with the health and safety of their employees at work. An employee was not provided with safety and health equipment and he/ she risked getting hurt at work anytime he/she goes about his/her duties. According to Takele and Admassu, (2006), the work place itself is a potentially hazardous environment where millions of employees pass at least one-third of their life time. This fact has been recognized

for a long time, although developed very slowly until 1900. According to McIntosh and Gough (1998), Safety and health in the workplace has become an integral component to the viability of businesses, employers, labour unions, government agencies and environmentalist.

According to Jorma (2004) every individual in life either at the workplace or outside the workplace has the intrinsic need to be safe and responsible for every decision they make with regards to securing their safety. Hotels will continue to be in existence as far as people have need to travel long distances where they require an overnight stay (Jurdark and Shahim, 2001). So, what then is safety and what constitutes the hospitality industry? The Business Dictionary.com defines safety as relative freedom from danger, risk, or threat from harm, injury or loss of personnel and property. Boyle (2006) defines the hospitality as receiving of guest in generous and cordial manner, creating a pleasant or sustaining environment that satisfies a guest needs. The hospitality industry is a several billion-dollar industry that mostly depends on the availability of leisure time and disposable income. A hospitality unit such as a restaurant, hotel, or even an amusement park consists of multiple groups such as facility maintenance, direct operations (servers, housekeepers, porters, kitchen workers, front office, bartenders, management, marketing, and human resources etc.)

Generally, the hospitality industry is the single biggest employer of young and inexperienced workers, (ILO, 2005). A significant part of the economy of any country is made up of hospitality and entertainment industries. Any country's economy has a huge employment proportion contributed by these industries; direct employees, part time and contract staff are hired. To keep the customers satisfied and to provide them with high standard of services, hospitality industries need to keep up with the pace which can be really fast and often requires employees to dedicate long hours to their work life. Therefore, to increase the productivity, morale of the employees and contribute to the wellbeing of the employees, human resource management of these industries needs to provide its employees with a safe and healthy working environment (Stiglitz, 2001). The hospitality industries workforce consists of a huge variety of employees and backend staff is often exposed to a variety of safety and health hazards due to the tasks they need to perform in the kitchen or other specific tasks that they are asked to perform. Hazards such as chemicals, noise and thermal stress are a great threat to the health of employees and they also may be exposed to the risk of disorders like musculoskeletal. A risk like fire and explosion, burs, cuts, scalds, electrocution, falls, knocks, slips and trips are always lurking around the corner. Such risk are called occupational accidents and diseases which can result in absenteeism on employee's part, suffering, sickness, loss in productivity, disability or can lead to deaths of the employees as well (ILO, 2005).

However, all of the above accidents can be prevented if the company has devised proper guidelines for its employees and also provide them the needed guidance on the identification of work hazards and how to prevent them. It is mandatory that employers should work in collaboration with the employees to avoid these accidents and to establish a safe and healthy working environment (Takala, 2000). The current study will therefore scrutinize through various cases of the health and safety management in the hotels as well as various research articles on the topic. Although the interest in the health and safety systems have risen in the previous years, there have been a number of question that are still unanswered in the health and safety community that includes the employers, the unions, the government and the specialists. Hence, the study will also aim towards answering questions like the importance of protection of employees' safety and rights in the Ghanaian industry, the system needed policy in place to ensure for health and safety management in Ghana and how this system will aim towards the reduction in injury and disease.

The inability of any establishment to conform to the safety rules governing its operation poses a great threat to its very existence. Hotel operators and employees must know about general hazards in the workplace and safety regulations related to the proper handling of equipment, tools and chemical materials. It is on this basis that the researcher seeks to assess the awareness of health and safety rules in the hospitality industry in some selected hotels in Accra Metropolitan area.

This paper seek to assess the knowledge of management and employees concerning health and safety in the hotels; explore the existing rules and regulations regarding health and safety in the hotels and examine the existing national policies on health and safety in the hotel industry. This study has become necessary at a time when Ghana is initiating moves at making tourism the first foreign exchange earner by the year 2015 (Ghana Statistical Service Report, 2005). The country seeks to accomplish this by boosting other related industries such as the hospitality industry. This paper will help policy makers in shaping policies in health and safety management issues in the hospitality industry and further help managers in the hospitality industry to save cost and time wastage with regards to health and safety issues.

## 2.0 Literature Review

According to Fleming & Lardner (2000), employee's physical well-being such as the mind and body needs to be in a state of good health and well-being to concentrate on a job assigned. This is a prime prerequisite for productivity. High productivity brings a sense of achievement for the individual as well as marginal increase in profits for the organization. A positive working environment for employees is the common goal of all employers

and managers in organizations. Such an environment encompasses favourable working conditions, timely management feedback and an understanding of job goals and priorities. According to Jorma (2004), a healthy workplace is an environment where health risks are recognized and controlled if they cannot be removed. In a healthy workplace, the work is designed to be compatible with people's health needs and limitations and employees and employers recognize the responsibilities they bear for their own health and that of their colleagues. A safe workplace is an environment where, to the highest degree, workers well-being physical, mental and social is promoted and maintained. All possible efforts are made to prevent worker's ill health caused by working conditions, to protect workers in their employment from factors adverse to their health, and to place and keep workers in their individual physiological and psychological conditions while also promoting and maintaining a work environment that is free of harassment (Jorma, 2004).

The World Health Organization, (1999) defines health as a "state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity". Thus, health and safety refers to the preventing and protecting people from injury and occupational disease in any form due to hazards and risk that may harm, injure, cause unsafe environment to people or damaged equipment or the facilities put in place at the workplace. The ILO, (2005) defines occupational health and safety as a discipline with a broad scope involving many specialized fields. In its broadest sense, it aims at the: promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; prevention among workers of adverse effects on health caused by their working conditions; protection of workers in their employment from risks resulting from factors adverse to health; placing and maintenance of workers in an occupational environment adapted to physical and mental needs; and adaptation of work to humans (Krishnan, 1999).

Health and safety hazards and risk must be managed and controlled to achieve high level safety performance. Management entails leadership, authority and co-ordination of resources, together with planning and organization, communication, selection, training of subordinates, accountability and responsibility. To achieve occupational safety and health objectives all parties involved at the workplace such as management, personnel or workers and union officials and people concerned have to be visibly committed to the health and safety programmes. Productivity is generally seen as a measure of the amount of output generated per unit of input. In many countries, public sector productivity has been assumed to be zero in the national accounts. According to Boyle (2006), output of the government sector has been measured as equal in value to the total value of inputs. This output one-fourth input convention has increasingly come under scrutiny in recent years. The challenge is to devise alternative estimates based on output measurement in a public-sector context where collective services are provided and where there is, in most instances, no market transaction in services provided to individuals (Boyle, 2006; Mearns, Whittaker and Flin, 2003).

The expression occupational health and safety plan is used to cover the whole spectrum of activities undertaken by employers, workers and their organizations, designers and architects, manufacturers and suppliers, legislators and parliamentarians, labour and health inspectors, work analysts and work organization specialists, standardization organizations, universities and research institutions to protect health and to promote occupational safety and health. It is a frame work that allows an organization to consistently identify and control its health and safety risks, reduce the potential for accidents, help achieve compliance with health and safety legislation and continually improve its performance. An occupational health and safety plan is the basis for all health and safety activities. It is a master plan to identify and control hazards before they cause accidents or illnesses; and respond to emergencies. An effective health and safety plan benefits all workplaces The Health and Safety Plan (HASP) of any organization provides a general description of the levels of personal protection and safe operating guidelines expected of each employee or subcontractor associated with the services being conducted at the site of operations. For the hospitality industry and specifically hotel, HASP also identifies chemical, biological, psychosocial, ergonomic and mechanical/electrical hazards known to be associated with the activities (Mearns, Whittaker and Flin, 2003).

The African continent is witnessing a verifiable shift towards peace, stability and economic growth. This situation is making the world appreciate West-Africa for its significant investment opportunities. Ghana is one such country in the sub-region experiencing rapid industrialization in recent times. Industrialization as discussed above comes with its own problems, one of which is OHS. In countries like Ghana with a fast-growing labour force coupled with a growing informal sector as opposed to the formal sector, workers have tended to fight for job security while neglecting the need to promote the quality of work life, although the provision of a safe and healthy work environment is a human right issue, and investment in occupational health and safety yields improved working conditions, higher productivity and better quality of goods and services. Lack of comprehensive OHS policy, poor infrastructure and funding, insufficient number of qualified occupational health and safety practitioners, and the general lack of adequate information are among the main drawbacks to the provision of effective enforcement and inspection services in most African countries (Jorma, 2004). The Republic of Ghana epitomizes the above assertion in its entirety.

According to Work Safe Australia (1996), Hierarchy of hazard control is a system used in industry to



minimize or eliminate exposure to hazards. It is a widely accepted system promoted by numerous safety organizations. This concept is taught to managers in industry, to be promoted as standard practice in the workplace. Various illustrations are used to depict this system, most commonly a triangle. The hazard controls in the hierarchy are, in order of decreasing effectiveness: elimination, substitution, engineering, administrative controls and personal protective equipment



Regulatory requirements under the occupational health and safety awareness and training regulation: ensure that workers complete a basic occupational health and safety awareness training program as soon as reasonably possible ensure that supervisors complete a basic occupational health and safety awareness training program within one week of working as a supervisor maintain a record of the training completed by workers and supervisors; and provide a worker or supervisor with written proof of completion of the training, if requested by the worker or supervisor

In Ghana, the Occupational Health and Safety Act were established under the Factory Offices and Shops 1970 (Act, 328). The main provisions of the Act are intended to bring it in line with internationally accepted standards on safety, health and welfare of employees. The occupational health and safety activities stated under the Act, include, creating safe work and work environment and promoting the safety, health and welfare of employees in order to ensure effective utilization of human capabilities thereby promoting increased productivity. Although Ghana does not have a national policy on Occupational Health and Safety, the Ghana Labour Act, 2003 (Act 651) has made provision for Occupational Health and Safety. Provisions made under Part XV Section 118 of the Act include placing a responsibility on employers to ensure a safe and healthy working environment and obligation on employees to use safety appliances provided by the employer in compliance of the employer's instructions. It is generally known that developing countries like Ghana lack relevant policies to adequately cater for the health and safety of employees (Quainoo, 2001).

### 3.0 Methods

This section outlines the methodology employed. Exploratory research was conducted using random target population for generalizability of the results. Data was collected using semi-structured questionnaires which were distributed to randomly selected hotel staff. Questionnaires were justified on the basis of the fact that they would enable the coverage of a wide area and extensive contents within a short period of time. For detailed and collective information, questionnaires were administered to hotel management to ensure that what the staff were not able to capture at their level then the management could answer. The questionnaires mainly dealt with safety awareness, prevention measures and policies and procedures within the hotels. Non-participant observation checklists were also used to confirm the physical structures available to ensure occupational health and safety of the employees in the hotel. The sample for the study emanated from officials of Ghana Tourist Authority, executives and employees of some selected hotels within Accra Metropolis. In all a sample size of eighty (80) was employed to obtain the relevant information for the study. The analysed data was based on findings from a total of 40 hotel staff, 20 hotel managers, and 20 officials of Ghana Tourist Authority including an observation checklist from the 10 hotels studied. Out of the total number of 80 questionnaires distributed to officials of Ghana Tourist Authority, hotel employees and executives, 72 were retrieved representing 90% response rate.

### 4. Results and Discussions

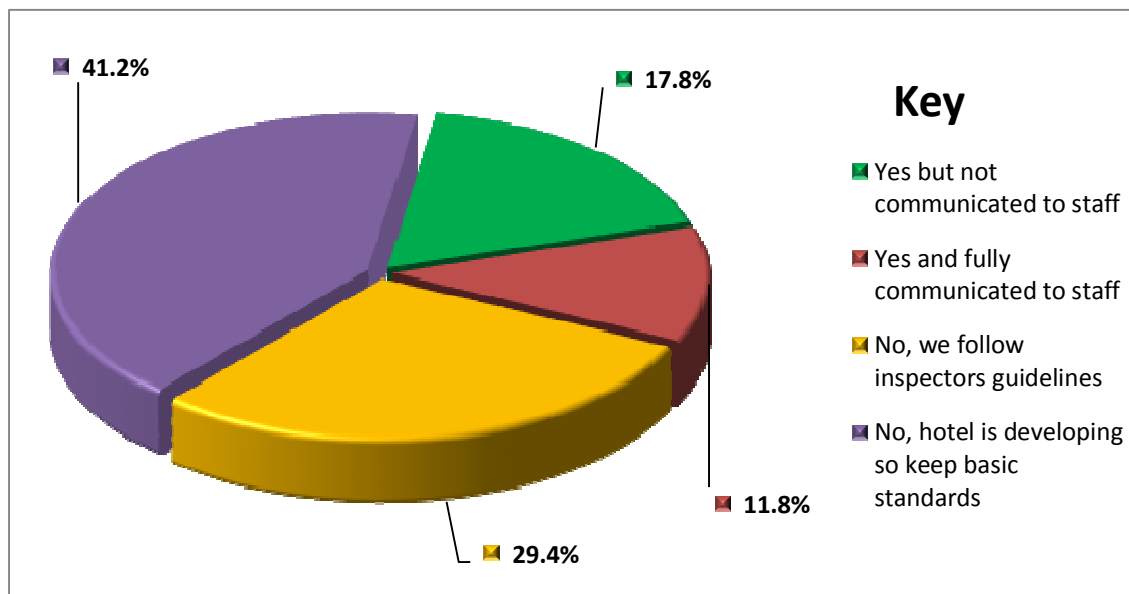
A reliability test using Cronbach Alpha resulted in a reliability coefficient of 0.845% (85%) which is above the recommended minimum of 0.7 (Santos and Reynolds, 1999) was conducted on all the variables (questionnaires) from the respondents used in the study. This indicate that the questionnaires were 85% reliable to be used for the study (Twenefour, 2017).

**Table 1: Crosstabulation on Demographic Characteristics of the Respondents**

Age Range	GTA Officials	Hotel Executives	Hotel Employees	Total	%
18 - 25	-	-	18	18	25.0
26 - 35	8	2	12	22	30.6
36 - 50	7	10	7	24	33.3
51 & above	3	5	-	8	11.1
Totals	18	17	37	72	100
Level of Education	GTA Officials	Hotel Executives	Hotel Employees	Total	%
No education	-	-	4	4	5.5
J.H.S	-	-	8	8	11.1
SSS/A' Level	5	3	25	33	45.8
Tertiary/Post Sect	13	14	-	27	37.6
Totals	18	17	37	72	100
Years of Service	GTA Officials	Hotel Executives	Hotel Employees	Total	%
0 – 5years	2	3	26	31	43.1
6 – 10yrs	4	8	8	20	27.8
11 - 15yrs	8	4	3	15	20.8
16 & above	4	2	-	6	8.3
Totals	18	17	37	72	100

Table 1 above shows that, 18 (25%) out of the 72 respondents are aged between 18 and 25 years and that all of them are Hotel employees. 22 (0.6%) respondents are aged between 26-35 years. Of this number 8 are Tourist Authority Officials, 2 are Hotel executives while the remaining 2 are Hotel employees. 24 (33.3%) respondents are between the ages of 36 and 50 years. Of this age range 7 are GTA officials, 10 are Hotel executives and the remaining 7 are Hotel employees. 8 out of the 72 representing 11.1% respondents are aged above 51 years. In relation to educational level of respondents. The study sought to evaluate the educational background of the respondents. 33 (45.8%) out of the 72 respondents had Senior Secondary School (SSS) certificate or Advanced level school certificate. Out of this number, 5 are GTA officials, 3 hotel executives and 25 happened to be hotel employees. 27 (37.6%) respondents are products of tertiary educational levels such as the Universities, Polytechnic, Teacher Training Schools etc. 8 (11.1%) respondents are J.H.S products while 4 (5.5%) respondents had no school mates. Table 4.1 shows that all 37 hotel employee respondents attained not more than Secondary education. This is highly consistent with the generally held view that those with low educational background are lower down the organisational structure and are not enviably rewarded. 13 (72.2%) percent out of the 18 GTA officials wield Tertiary level qualifications while 14 (i.e. 82.3%) out of 17 respondents who are hotel executives have some form of tertiary level qualification (see Table 1).

In relation to the service duration of the respondents, 31 (43.1%) respondents have been in their organisations for not more than 5 years. 20 (27.8%) respondents have been with their outfits for periods between 6-10 years. 15 (20.8%) respondents have between 11- 15 years while the remaining 6 (8.3%) respondents have been in the employment of their organisations for period above 16 years. It is interesting to note from the findings that 26 out of the 37 employees of the hotels constituting 70.3% have not worked more than 5years. With the Ghana Tourist Authority, 12 out of the 18 forming 66.7% respondents have been around the organisation for more the organisation for more than 10 years signifying job security with government organisation (see Table 1).



**Figure 1: Views on whether Hotels has Health and Safety Policy**

Figure 1 presents the view on whether hotels has health and safety policy in place. 7 (41.2%) out of the 17 hotel officials indicated that their hotel had no documented health and safety policy and that they are doing well to maintain basic health and safety standards. 5(29.4%) respondents also mentioned the fact that they do not have a clear cut health and safety policy and that they are following standards prescribed by the external inspectors. 3 (17.6%) respondents indicated that they do have policy on Health and Safety, but these have not been communicated to staff members. The remaining 2 which happens to be star rated stated emphatically that they have health and safety policy document which has been summarised and pasted on some vantage areas of the facility. One can clearly deduce from the foregoing that star rated hotels seem to have taken this issue of health and safety seriously while the non-star or budgeted hotels just seem to be doing their best to satisfy the inspectors. Management of Holiday Inn Hotel for instance indicated that they have subjected themselves to international scrutiny by credible institution such as International Standards Organisation i.e. (ISO, 9000) as well as Quality Standards (QS 14000) and these are in the process of releasing their findings on them so as to be accredited with the desired international ratings.

25 (65.8%) out of the 38 employee respondents indicated that they had no idea as to whether their hotels had health and safety policy or not. 31 (81.6%) respondents answered in the affirmative that they are well aware of the health and safety obligations as some employees. Seven 7 (76.3%) respondents indicated they did not have any documented procedures for the work they do (see Table 2). 9 (23.7%) respondents however pointed out that adequate arrangements have been put in place through documentation to ensure that the work they do are covered by safety procedures.

**Table 2: Table on Employee Awareness on Issues**

Statement on Health and Safety Issues	Yes %	No %	No Idea %
Is documented health and safety policy available at your hotel?	34.2	-	65.8
Is the policy communicated throughout the hotel?	34.2	65.8	-
Are you aware of your health and safety obligations?	82.3	17.7	-
Do you have documented safety procedures for the work you do?	23.5	76.5	-

Twenty-five (i.e. 65.8%) respondents noted that no health and safety policy documents have been communicated to them. Thirteen (i.e. 34.2%) respondents agreed with the statement that some form of communication has been given to them in respect of their hostel's policy statement on health and safety issues. In view of the obligation to health and safety issues at work place. 14 (3.8%) out of the hotel employee respondents indicated that under the employee's obligation to health and safety issues, they are expected to act to protect themselves and others. 11 (29%) respondents noted that the employee is expected to follow health and safety procedures in order to help accomplish the health and safety framework within their organisation. 8(21%) respondents also pointed out that as an obligation to health and safety arrangements at their hotel, each employee is expected to be careful the way they use health and safety equipment. 5 (13.2%) respondents noted that under the health and safety arrangement, it is a criminal offence for an employee to sound a false fire alarm or play with the fire extinguisher to create unnecessary panic and tension.

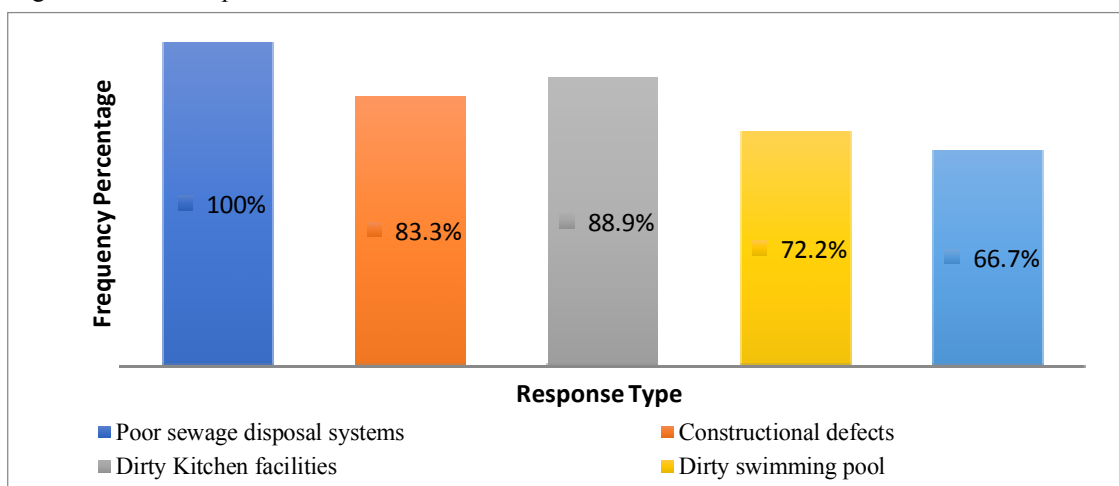
**Table 3: Health and Safety Laws**

Health and Safety at Work Act	Frequency (out of 18)	Percentage
The employers must provide a safe and healthy workplace	15	83.3
The provision for proper safety procedures for both visitors and employees	14	77.8
Safe machinery and equipment must be provided and guided	13	72.2
Local written health and safety policy must be available to all employees	10	55.6
Employees must act so as to protect themselves and visitors	14	77.8
Employees must follow health and safety material and equipment	12	66.7
Temporary staff also obey the law	10	55.6

Table 3 presents respondents' views on health and safety laws. 15 (83.3%) out of the 18 respondents from Ghana Tourist Authority pointed out that under the Health and Safety Act the employer must provide a safe and healthy workplace for employees, visitors, and others. Fourteen (77.8%) respondents indicated that the employer must all provide proper safety procedure for both visitors and employees. 13 (72.2%) respondents noted that under the safety and health act it is the duty of the employer to provide safe machinery and equipment and that these must be properly guided. For instance, it is an offense to be seen playing with the fire extinguisher which could injure employees and visitors. 14(77.8%) respondents noted that it is the duty under the health and safety act for the employees to act so as to protect themselves and visitors. 12 (66.7%) respondents indicated that employees must follow health and safety procedures in the performances of their duties. Ten (55.6%) respondents indicated that the health and safety Act makes it mandatory for local written health and safety policy to be available to all employees.

Respondents answered both yes and no with reasons stated below. 16 (88.9%) out of the 18 GTA respondents pointed out that most of the employees are aware of the safety and health laws and regulations yet since they are not properly enforced by the appropriate authorities the situation looks like these safety and health standards do not exist. 17 (94.4%) respondents felt the employees did not know of such safety and health law because hotel operators want to cut cost and therefore would not create expensive structures that should enhance safety and health standards. 15(83.3%) respondents appeared categorical on their no answer to whether employees have ample knowledge about safety and healthy laws. The group explained further that with the level of unemployment so high at the Ghanaian labour front workers are even afraid to question managers or owners of the hotels about safety and health issues. Thirteen (72.2%) respondents felt employees of hotels somehow knew of safety and health laws and standards yet since the external enforcement agencies are not living up to expectation the employers have recoiled into their shells thereby failing to observe basic safety standards.

In relation to whether hotels are inspected for compliance to health and safety policies; 8 (44.4%) out of the 18 officials of the GTA pointed out that the hotel facilities are inspected annually to evaluate general compliance with standards including health and safety issues. 4 ( 22.2%) respondents indicated that hotels are inspected on half-year basis. 3 (16.7%) respondents were of the view that the hotels are rather inspected quarterly and that this often happens when it is discovered that all was not well with some compliance issues. The remaining 3 (16.7%) respondents also indicated that hop visits are often made to what they refer to as 'troublesome' hotels to ensure that regulations are complied with.



**Figure 2: Sanctions Imposed for non-compliance with health safety rules**

In Figure 2. all 18 (100%) respondents or officials from Ghana Tourist Authority pointed out that hotels which violated the safety and health rules by maintaining poor sewage disposal systems severely sanctioned. 16

(88.9%) respondents also indicated dirty surroundings and poor cooking facilities also held their operating licensing suspected and made to pay fine as well as restore decency prior to being asked to continue operations. 15 (83.3%) respondents mentioned constructional defects noticed in the hotel operating structure as another offence which attracted sanctions because it had the propensity of injuring employees and visitors. 13 (72.2%) respondents also noted that some hoteliers added on extra hotel room without consulting the tourist board to evaluate the safety of such additional facilities. Offenders had their licences suspended until the relevant government building inspecting agency approved of the additions. 12 (66.7%) respondents mentioned badly handed swimming pool as another offence where a good number of hoteliers have been sanctioned.

Table 4 presents respondents' views on other regulatory agencies on the Tourism industry. All 17 (100%) respondents indicated that Ghana Fire Service visit their hotel premise periodically to evaluate their readiness to fight any fire outbreak.

**Table 4: Views of other Regulatory Agencies on the Tourism Industry**

Regulatory Agencies in Hotel Industry	Frequency (out of 17)	Percentage
Environmental Protection Agency	13	76.5
Ghana Fire Service	17	100
Health Inspector from District Assembly	14	82.4
Factory Inspectors from Labour Ministry	12	70.6
Ghana Tourist Authority	17	100
Ghana Police Service	9	52.9

All 17 (100%) management member respondents mentioned officials of Ghana Tourist Authority as another external group that often inspect their hotel premises. It was noted that most annual inspections were necessary help form an opinion as to whether to renew the clients' hotel operating licence or not. Perhaps it must be worth recording that in the immediate past a good number of hotels have had their operating licenses wither suspected or revoked owing to violation of one kind of operating rules or another.

14 (82.4%) respondents noted that health inspectors from the Accra Metropolitan Area often visit their operating facilities to check on the healthy status of their operations. They usually examine the sewage system, the status kitchen equipment's, the landscape gardening to ensure that mosquito breeding grounds are not promoted. 13 (76.5%) respondents indicated that officials of the Environmental Protection Agency (EPA) also visit their establishment from time to time to investigate whether their operations are degrading the ecosystem. 12 (70.6%) management member respondents mentioned factory inspectors as another external inspection group that periodically visit their hotels.

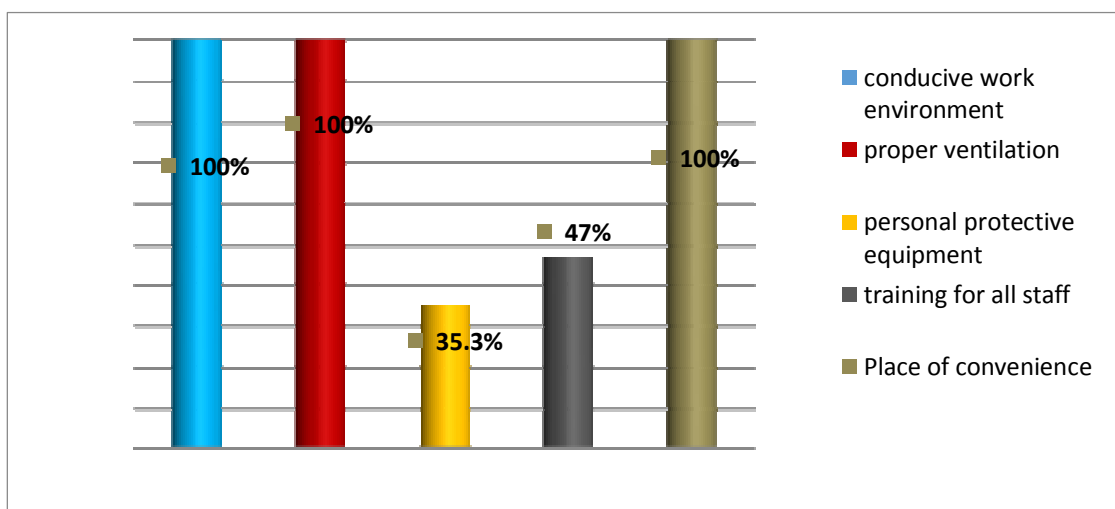
9 (52.9%) respondents also reported that the Ghana Police Service visit their premises to check on the identity of certain visitors who are considered dangerous to the hotel in particular and the community at large. Such people could be wounded armed robbers who have taken refuge at the Hotel, notorious international criminals who have infiltrated through Ghana porous borders to hide their identity thereby escaping lawful arrest.

**Table 5: Evacuation Plans at hotel Premises**

Kind of Evacuation plan/Equipment	Yes	No
Existence of Fire extinguishers	100	-
Existence of fire fighters	29.4	70.6
First Aid box or Clinics	100	-
Assembly point	35.3	64.7
A roll call for staff when there is fire	100	-
First Aiders	17.6	82.4
Emergency exist	70.6	29.4

All 17 respondents indicated that fire evacuation facilities such as fire extinguishers, First Aid box or Clinic as well as a roll call for staff where there is fire are all available at their premises. 12 (70.6%) respondents indicated that although they have fire extinguishers they have not yet trained special staff as fire fighters. 5 (29.4%) respondents however indicated that they do have fire fighters. 11(64.7%) respondents pointed out that their outfits did not have fire Assembly points while 6 (i.e. 35.3%) respondents gave an indication that they do have Assembly point. Twelve (i.e. 70.6%) respondents mentioned the existence of Emergency exit while 5 (29.4%) respondents said their hotel do not have emergency exists. As many as 14 (82.4%) respondents stated the absence of First aiders within their hotel premises while 3 (17.6%) respondents confirmed that they do have specially trained people who administer first aid to deserving persons in case of any eventuality.





**Figure 3: Health and Safety Facilities Provided by Management at Hotels**

All 17 (100%) hotel management respondents noted that they are aware of their obligation to provide such health and safety facilities as conducive work environment, proper ventilation as well as places of convenience for the benefit of staff members. Only 6 (35.3%) respondents indicated that they have provided Personal Protective Equipment (PPEs) for staff members. Eight (i.e. 47%) respondents do provide some form of training for their staff while 9 (53%) respondents stated that they are yet to train their staff. It is surprising that more than 50% of the hotels have no training packages in places for staff. How would staff members then imbibe more trends in the industry (see Figure 3).

Table 6 presents the challenges faced by Ghana Tourist Authority (GTA). 17 (94.4%), out of 18 respondents from GTA indicated that their organisation has a big challenge with manpower and that inadequate personnel in the national and regional offices is really disrupting their inspection duties. 15 (83.3%) respondents also mentioned political interference as a huge problem bedevilling their quest to straighten up erring hoteliers. 15 (83.3%) respondents also pointed at logistical challenge especially the absence of good vehicles for conducting frequent inspection exercises. 14 (77.8%) respondents presented another challenge as the dishonest attitude of some GTA officials who compromise their professional ethics thereby accepting bribes from non-complaint hoteliers to cover up violations of the health and safety rule. 13 (72.2%)

**Table 6: Challenges faced by Ghana Tourist Authority**

Identified Challenge	Frequencies (out of 18)	Percentage
Political interference in disciplinary erring hotels	15	83.3
Corrupt GTA officials who condone to cover non-compliance	14	77.8
Manpower inadequacy	17	94.4
Logistical constraints especially vehicles	15	83.3
Lack of funds to adequately build the capacity of hoteliers	13	72.2
Lack of requisite co-operation from stakeholder institutions	12	66.7

respondents noted that lack of funds to outsource capacity building training sessions towards improving upon compliance by hoteliers is also a huge challenge confronting their operations. 12 (66.7%) respondents mentioned lack of co-operation from other stakeholders such as the fire service, health inspector, Ghana Police, Environmental Protection Agency as a big challenge to their operations. The respondents further indicated that these other external agencies do not seem to be serious about their inspection duties leading to serious violations and compromises on health and safety standards.

## 5. Conclusion

Knowledge of staff and management members of Hotels concerning health and Safety practices within their industry. The study is in the position to conclude that although management members of hotels are aware of the health and safety standards and procedures required of them such information has not be fully disseminated to employees and therefore most workers are not aware of statutory provision on the health and safety laws governing their operations.

As means of protecting employees and hotel customer managements, hotels have put in place such measures as emergency exit, fire assembly point, caution signs, hot surface signs, bright light in corridors, security check point as well as clean Sewage system that does not promote mosquitoes to infest employees and customers with malaria fever.

The study further concludes that the Ghana national health and safety laws were promulgated in 1970 under

Act 328 with the sole aim of bringing Health and Safety standards in consonance with international laws. The act prescribes healthy and safety environment for which employees must operate and that the employees also have an obligation to ensure that they act in a manner that does not endanger the lives of other employees and visitors. Existing national regulations on health and safety practices further stipulate that management of organisation have the obligation to provide conclusive work environment, proper ventilation, personal protection equipment, training of all staff as well as decent places of convenience for all employees and visitors.

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