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PREFACE

The University of Cape Coast has run business programmes since the 1975/76 academic year, when it introduced the immensely popular Bachelor of Commerce degree programme. In 2003, the Department of Business Studies, then part of the Faculty of Social Sciences, attained Faculty status as the School of Business.

Like other leading Business Schools in the world, it is befitting of the School of Business of the University of Cape Coast to have a scholarly journal of the highest standards, which focuses on business and enterprise development. *Journal of Business and Enterprise Development (JOBED)* aims to stimulate in-depth and rigorous empirical and theoretical research in the business and enterprise development.

This issue features articles touching on entrepreneurship and consumer purchasing behaviour, organisational psychology, health and safety practices in hospital facilities, cross-border e-commerce trade, governance in the banking sector, tax administration, tax incentive and SMEs' growth, HRM practices and innovative work behaviour, and organisational performance, and social media usage in institutional administrative processes. The broad spectrum of articles selected underscores the importance of addressing business issues in a multidisciplinary context. Each article has been subjected to scrutiny not only by the editorial board, but also by seasoned reviewers from within and outside the University of Cape Coast. A double-blind assessment procedure was adopted for the review.

The *Journal of Business and Enterprise Development (JOBED)* is currently published as an annual periodical, but it is hoped that very soon it will be released twice a year and, subsequently, quarterly.

It is our fervent hope that readers will benefit from its contents, and that quality contributions will be forthcoming to sustain it. We welcome all comments aimed at improving the journal.

May I take this opportunity to thank the various reviewers who took time off their busy schedules to review the papers submitted. May I also thank the members of the editorial board in recognition of the role they played, and the quality service rendered towards the production and release of this document.

I wish you enjoyable reading.
F. O. Boachie-Mensah
(Editor-in-Chief)

Economic Valuation of Consumers' Preferences for Bush Yam Attributes: Implications for Breeding Commercial Crop in Ghana

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Abstract

Bush yam has been underutilized and underrated for long due to its undesirable attributes or traits, hence the commercial and food security potentials of the crop have been downgraded and unexploited. This paper, therefore, explored the Ghanaian bush yam consumers' decisionmaking behaviour towards the crop's cultivar selection and the values they place on its diverse attributes. With the aim of examining consumers' preference and willingness to pay for bush yam, we designed a choice experiment which was implemented through a cross-sectional survey, involving 390 bush yam consumers in the Western-North, Eastern and Central Cocoa Regions of Ghana. We employed Conditional logit to model consumers' preference behaviour for bush yam attributes from the choice experiment and, subsequently, computed their willingness-to-pay for each attribute, following the Lancaster consumer theory, using the ratios of specific product attributes and cost parameter. Our estimates of consumers' preferences for bush yam attribute revealed a highly significant preference for bigger tuber size, no colour change and sweet taste attributes. Age, education, marital status, and years of consumption were found to have influenced consumers' preferences for bush yam attributes. Furthermore, we found that bush yam consumers are willing to pay extra price value for improvement in tuber size, colour change and taste to meet their indicated preferences. We, therefore, recommend that, for breeding programmes to be more effective and sustainable towards developing a commercial cultivar, breeding institutions and policy makers should focus on the preferred attributes as indicated by consumers for a successful future commercialization of bush yam in the country.

Keywords: Bush yam, attribute preference, choice experiment, willingness-to-pay, consumers, Ghana

Introduction

Yams are an important source of dietary energy, livelihoods and incomes in West Africa (Mensah, 2005). The West African yam belt accounts for over 90 percent of global yam production, with Nigeria, Ghana and Cote d'Ivoire being the top three producers, respectively (International Institute of Tropical Agriculture [IITA], 2014; Anokye, Tetteh & Otoo, 2014). In 2013, production in the yam belt was approximately 55 million tons on 4.4 million hectares of land (IITA, 2014), giving an average yield of 12.5 tons per hectare. In contrast to other food crops, yams are almost entirely consumed as food. Yam has a cultural value in West Africa as it symbolizes wealth and influence, and it is the food used for the celebration of some social ceremonies and festivals in West Africa (Obidiegwu & Akpabio, 2017; Idang 2015; Tetteh & Saakwa, 1991). Apart from the known commercial species of yam, there are other edible noncommercial yams, such as *D. burkilliana*, *D. minutiflora* and *D. praehensilis* (bush yam), which mostly grow as wild plants. These wild yams are mostly found in forest areas and were previously the main energy food for huntergatherers (Yasuoka, 2009; Sato, 2001). Among the edible wild yams, bush yam is said to be the most dependable staple food in Africa (Sato, 2006). Over the years, the crop has been tamed and grown on subsistence basis, predominantly in the cocoa-growing areas in the forest zone; and further in recent times, the commercial potential of the yam is strongly considered as a source of improving farm households' incomes and livelihoods. This calls for the concern of plant genetic breeders to come out with breeding cultivars with improved attributes to promote large scale commercial production by farmers.

Over the years, there have been initiatives to improve yams in Ghana and in West Africa. One of such interventions is the Root and Tuber Improvement and Marketing Programme (RTIMP). In 2008, the West Africa Agricultural Productivity Program (WAAPP) was initiated to develop improved technologies for roots and tubers in close collaboration with the RTIMP (Acheampong, *et al* 2017; World Bank 2007b). Nevertheless, these efforts have largely been targeted at the known commercial species and fail to exploit the prospects of edible bush yam. In Ghana, bush yam (known locally as '*Kookoase Bayerɛ*,' meaning 'yam grown under cocoa plantation') has been an important food and income security crop for cocoa farmers for years, but it has low consumption outside where it is grown due to some of its unwanted attributes

A major restriction to the commercialization and wider consumption of bush yam is the short postharvest shelf-life; and few days after harvesting, the tubers become hardened when cooked and, thus, difficult to eat (Abong, *et al*

2016; Dumont, Dansi, Zoundjihékpon & Vernier, 2005). This has limited the consumption and marketing of freshly harvested tubers to mainly the small production areas in the rural areas, hence, limiting supplies to urban markets. There exists a great diversity among cultivars with regard to post-harvest shelf life, cooking quality, yield and consumer preference. Bush yam has several benefits that can be exploited that would contribute significantly to the yam industry in Ghana, West Africa and the world at large. Bush yam has the potential of becoming the source of one of the most lucrative businesses in agriculture if it is well developed and managed.

The low rate of consumption of this unimproved bush yam in Ghana has been due to inability of breeding programmes to breed improved cultivars with desirable attributes for commercial production and consumption, since breeders had not properly factored into account the unique preferences and requirements of both the producers and consumers, or end users of the crop informed by appropriate research findings. This unimproved bush yam may be high yielding but may not be attractive to many consumers in the yam market unless they possess attributes that farmers and consumers consider more desirable. Studies on farmers' and consumers' crop variety choices consider crop as a bundle of multiple characteristics (Shiferaw, et al 2013; Goron, & Raizada, 2015; Wale, Mburu, Holm-Müller, & Zeller, 2005; Edmeades, Phaneuf, Smale, & Renkow, 2008). For bush yam, such bundle of attributes may include production characteristics (such as high yielding, early maturity and adaptability to harsh environments), consumption characteristics (such as taste, cookability, storability, multiple usage and colour), and other non-market benefits farmers and consumers get from the production and the consumption of yam. Bush yam possesses certain attributes that are superior to the equivalent traits in the commercial yam species that could be exploited for its improvement for commercial gains; and these desirable attributes can be identified through our current study findings.

In marketing, one is interested in how consumers react to products in the marketplace. Here, the marketer would want to know what makes a product attractive to a consumer and, thus, drives their willingness to pay a price for a product in a market. As such, and in the case of commercial bush yam, there must be tendencies for genetic breed improvement programmes to focus on certain attributes associated with production outputs, such as taste, size, postharvest shelf-life, or culinary properties, with an assumption of a profit maximizing objective function of farm-business when computing economic values of attributes to be included in a breeding programme (Bakulumpagi, 2018;

da Silva Dias, 2014). With our study objective of contributing to promote the commercialization of bush yam, we find the need to investigate the desirable attributes of this underutilized crop from the perspective of consumers. In order to design sustainable breed improvement programmes intended to breed improved commercial bush yam varieties, consumers' preferred attributes of bush yam need to be integrated into a breeding objective. The purpose of this paper was, therefore, to contribute to the development of improved bush yam cultivars by assessing consumers' preferences for bush yam attributes or traits.

This paper examined the Ghanaian bush yam consumers' decision-making behaviour towards cultivar selection and the values they place on different attributes as part of effort to scale up its production and consumption in Ghana and Africa. The paper specifically contributes to literature by identifying (1) bush yam attributes preferred by consumers and the importance of the crop's attributes on the consumers' choices (2) the determinants of consumers' preferences for bush yam attributes (3) consumers' willingness to pay for the preferred bush yam attributes. Our findings will help inform the crop breeding policy and programmes to successfully develop improved breeds and cultivars that will be desirable by both consumers. Here, the improved cultivars will enable farmers to produce commercial bush yams that consumers will not hesitate to purchase in the market. Accordingly, farmers will gain advantage of having ready and good market guaranteed for their produce, thereby getting stable incomes. The consumers will also be advantaged by getting value for their money, since they would now patronize bush yam produced to meet their preferences.

Literature Review

Theoretical Framework

Choice decisions, which are the underlying framework for choice experiments, are commonplace activities in all societies either at an individual, group, or organizational level (Ouma, 2007). Choosing comes about in several ways, for example, accepting one outcome and rejecting others, expressed through active responses, such as choosing to use certain products or services through purchases, or through passive responses, such as supporting particular views over an issue of interest (Louviere, Hensher, Swait & Adamowicz, 2000). The theoretical framework of choice experiments is derived from Lancasterian consumer theory, discrete choice and random utility theory.

The foundation for most microeconomic models of consumer behaviour is the maximization of a utility function subject to a budget constraint. According to Lancaster (1966), the essential point of departure of his consumer theory from classical consumer theory relevant to choose experiments is the claim that utility is derived from traits or attributes of goods rather than the good itself. This indicates that goods are either used based on individual attributes or combination of attributes in order to produce the satisfaction that is the source of a decision maker's utility. This is the basic point of departure from the traditional economic theory of demand, which assumes that goods are the direct objects of utility.

Discrete choice theory has provided a simple and direct approach to choose decisions, especially the one formulated for economic analysis by McFadden (1986). In discrete choice framework, the set of alternatives, called the choice set, are naturally discontinuous and must exhibit three characteristics, as described by Train (2003). Foremost, the alternatives must be mutually exclusive from the decision maker's perspective. Secondly, the choice set must be exhaustive, so that all possible alternatives are included. Finally, the number of alternatives must be finite. A universal set of alternatives denoted C is assumed to exist. The constraints, for example, the budget constraint faced by an individual decision maker n determines his or her choice set $C_n \subseteq C$. The third characteristic is restrictive and is the defining characteristic of discrete choice models, which distinguishes their realm of application from that of regression models. The assumption of rational decision makers in consumer theory is maintained. Rationality means that when decision makers are faced with a set of possible consumption bundles of goods, they assign preferences to each of the various bundles and then choose the most preferred bundle from the set of affordable alternatives. Consistency and transitivity of preferences are also assumed.

The concept of random utility theory, which was created by Thurstone (1927) and later improved by Luce in 1959 and further by Marschak (1960), forms an important framework for discrete choice modeling. Whereas classic consumer theory assumes deterministic behaviour, random utility theory introduces the concept that individual choice behaviour is intrinsically probabilistic. The notion behind random utility theory is that while the decision maker may have perfect information regarding his/her utility function, the analyst lacks precise knowledge about the decision maker's decision processes and, therefore, uncertainty must be taken into account in the utility function (Ouma, 2007). In addition, the deterministic discrete choice framework does not take into account the existence of unobserved heterogeneity in preferences

among decision makers with identical choice sets, attributes of alternatives and socio-economic characteristics. Therefore, utility is modeled as a random variable, consisting of an observable, deterministic component and an unobservable (random) component. The random utility theory assumes that an individual derives utility by buying or choosing an alternative from a set of alternatives. A utility maximizing behaviour is assumed, that is, a decision maker is assumed to buy or choose the utility maximizing alternative.

The Survey

The study was carried out in the Central, Eastern and Western-North Cocoa Growing Regions of Ghana and we used a mixed research approach and orthogonal factorial experimental designs. The target population was all bush yam consumers mainly from communities in six districts of the Central, Eastern and Western North Cocoa Growing Regions of Ghana. Bush yam consumers were identified as ideal target population for the choice experiment in order to ensure that the targeted bush yam consumers must have used or eaten bush yam before and are familiar with the attributes of bush yam.

In Ghana, bush yam (popularly known as “*Kokoase bayere*”) thrives well in all cocoa growing areas (i.e., all the seven cocoa growing regions). Its production and consumption are also becoming common in all cocoa growing regions. We thus considered it appropriate to give all cocoa growing regions equal chances of being part of the study. We, therefore, had to use the simple random sampling technique to select three regions from the seven cocoa growing regions in Ghana. We purposively selected two districts from each of the three selected regions and this was based on the perceived levels of bush yam production and consumption in those districts based on information obtained from a focus group discussion that preceded the quantitative survey. These districts were Abura-Asebu-Kwamankese and Twifo Hemang Lower Denkyira Districts in the Central Region; Upper Manya Krobo and Yilo Krobo Municipality in the Eastern Region, and Bibiani-Anhwiaso-Bekwai District and Sefwi Wiawso Municipality in the Western North Region. A total of 390 consumers were accidentally selected during a survey at market centres and villages in the selected districts, since the total number of bush yam consumers was difficult to obtain. The number 390 was made up of 146 consumers from Western Region, 119 consumers from Central Region and 125 consumers from Eastern Region. The rule of thumb for determining a suitable sample size for DCE proposed by Pearmain, Swanson, Kroes and Bradley (1991) suggests that,

for Discrete Choice Experiment (DCE) designs, sample sizes over 100 are able to provide a basis for modelling preference data. Further in their empirical experience, Lancsar and Louviere (2008) asserted that one rarely requires more than 20 respondents per questionnaire version to estimate reliable models but undertaking significant post hoc analysis to identify and estimate covariate effects invariably requires larger sample size. Hence, the number 390 was considered appropriate for a meaningful statistical analysis to be made.

With the help of an interview schedule instrumentation for data collection, face-to-face interviews were conducted from March to April, 2017 to collect cross-sectional choice experiment survey data from the 390 consumers who agreed to be part of the survey. We conducted interviews by literally explaining the choice experiment in the local dialect (Twi and Krobo) common to the respondents, since most of the respondents could neither speak nor understand the English language to ensure better communication and retrieval of reliable and accurate responses. The data were collected by the researchers and four trained research assistants.

The Choice Experiment

We used the fractional factorial designs to generate the choice set by selecting subsets of choice sets from the full factorial design. With the help of the information obtained through a reconnaissance survey, we selected five relevant bush yam attributes and determined their attributes levels to guide the design of the experiment for farmers. The bush yam attributes, and their levels used in the choice experiment are summarized, as presented in Table 1. Our full factorial design would have resulted in 96 (i.e., $3 \times 2 \times 2 \times 2 \times 2$) generic choice sets for the study. In fact, a full factorial design is very large and not easy to manage in a choice experiment. We realised it was not practically feasible to work with such a large number of choice sets, and so a partially orthogonal main effect design was eventually generated from the full factorial design to create feasible choice sets. This was made possible, using experimental design techniques in SPSS Conjoint software (SPSS, 2008) to obtain an orthogonal design, which consisted of only the main effects. The design resulted in 40 fractional factorial profile alternatives.

We used the choice sets from our design to construct profiles, describing the differences in attributes and levels of bush yam, and these we presented to respondents in hypothetical settings. The profile alternatives were then grouped into 10 choice cards with four profile alternatives forming the choice sets. The

generic choice sets did not refer to any particular variety or label, but rather were members of a class of alternatives. The alternatives were simply bundles of attributes and the objective was to assess which attributes were important drivers of choice.

Table 1: *Attributes, Description, Attribute Levels, Codes and Expected sign, for Consumers*

Attributes	Description	Attribute Levels	Codes	Expected sign
Purchase Price	The purchase of attribute will be based on the selling price per tuber (5kg)	• price <GH¢5.00	1	Negative
		• This GH¢5.00- GH¢10.00	2	
		• >GH¢10.00	3	
Taste	Whether a particular bush yam cultivar tastes good or not	• Sweet taste	1 Tasteless	0 Positive
Tuber size	Whether the tuber is big or small	• tuber Big Size	1 Small Size	0 Positive
Storability	Whether a particular cultivar is able to maintain its quality days or weeks or months	• At most a month	0 More than 1 month	1 Positive
Cookability	Ability of a particular bush yam cultivar to cook well	• Good cookability	1 Bad cookability	0 Positive

Tuber Colour Change	No Colour Change	Colour Change	Colour Change	No Colour Change
Purchase Price (5kg)	> GH¢10.00	< GH¢5.00	GH¢5.00- GH¢10.00	GH¢10.00
I would prefer to buy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Source: Survey Questionnaire, Dadzie *et al.* (2016)

The Theoretical Model Explained: Conditional Logit

Independent and identically distributed (IID) error terms with a Type I extreme value distribution are assumed in the conditional logit model. The objective or interest of this study was to determine the importance of the preferred attributes of bush yam, and the willingness-to-pay for those attributes by consumers. The conditional logit model permitted the estimation of both interests and, therefore, was used. Meanwhile, all the information regarding some of the characteristics that make up the decision process was not in the possession of the researchers and so the random utility model split the total utility in two parts. According to Louviere *et al.* (2000), the first part is a deterministic or the observed component of utility function based on product attributes $k(V_{ik})$, and the other part is a stochastic, or random unobserved error component (ε_{ik}); hence, the resultant utility equation is given:

$$U_{ik} = +V_{ik} \square_{ik}, k = \text{alternative } 1, 2, 3 \text{ and } 4$$

(1) where U_{ik} is the utility of the i^{th} individual consumer choosing the k^{th} bush yam alternative (e.g., Bush Yam A in Table 2). The individual consumer i will choose product k only if $U_{ik} > U_{ih}$, where h represents an alternative product (e.g., Bush Yam B, or Bush Yam C or Bush Yam D in Table 2). The probability that consumer i will prefer alternative k out of a set of h alternatives is:

$$P_{ik} = PV(ik + \square_{ik} \square + \square \square V_{ih} \square_{ih}; h k),$$

(2) for all h in the choice set not equal to k .

Assuming that the observable utility component (V_{ik}) is a linear function of the perceived product attributes ($x=price, taste, tuber size, storability, cookability and colour change$) and there are w attributes for each alternative (the number of bush yam attributes, w considered in our case is 6), the function of this utility components is given:

$$V_{ik} = \sum_{k=1}^w \beta_w x_{ikw} = \sum_w \beta_w x_{ikw} \quad w = \text{attributes } 1, 2, 3, 4, 5, \text{ and } 6$$

(3)

where x_{ikw} is the w^{th} attribute value for the k^{th} alternative for the i^{th} consumer, and β_w represents the coefficients to be estimated, which represent the value the consumer places on a particular attribute.

Again, assuming that the error term (ε_{ik}) in the utility function is independent and identically distributed with an extreme value distribution and scale parameter equal to 1, the logistic model results (McFadden, 1974). This model is more appropriate and makes it possible to study the determination of the factors influencing consumers' preference when the explanatory variables consist of individual specific characteristics and these characteristics are the determinants of the choice (Bekele, 2004). In its multivariate generalization, it gives rise to the conditional logit model. In a conditional logit framework, the probability that consumer i chooses alternative k is:

~~$$P_{ik} = \frac{\exp(V_{ik})}{\sum_k \exp(V_{ik})} = \frac{\exp(x_{ik}' \beta)}{\sum_{ik} \exp(x_{ik}' \beta)}$$~~ (4)

$$P_{ik} = \frac{\exp(V_{ik})}{\sum_k \exp(V_{ik})} = \frac{\exp(x_{ik}' \beta)}{\sum_{ik} \exp(x_{ik}' \beta)}$$

The IIA condition is usually tested with the Hausman-McFadden test (McFadden et al., 1976; Hensher et al., 2005). For the calculation of the test statistic, each alternative is separately excluded from the model, and the parameters for restricted and unrestricted models are estimated as well as their variance-covariance matrices. The test criterion is chi-square distributed with the degrees of freedom given by the number of estimated parameters. To measure how well the model fits the data, the goodness-of-fit statistics on the basis of the log-likelihood function are usually used (for instance, Agresti, 2002). There exist many such statistics (Pecáková, 2007), but the most used in literature on discrete choice modelling, and which has been adopted in this paper, is McFadden's statistic:

$$D_{MF} = \frac{\ln L_0 - \ln L_E}{\ln L_0}, \quad (5)$$

where L_0 is the likelihood of the intercept-only model and L_E is the likelihood of the estimated model. For the purposes of comparison of models, the loglikelihood ratio statistic was used, and it is the statistic for testing the null hypothesis that, the restricted model (R) holds against the alternative unrestricted model (U):

$$D = -2(\ln L_R - \ln L_U) \quad (6)$$

It has an approximately chi-square distribution with degrees of freedom equal to the difference in the number of parameters between both compared models.

Empirical model specification of consumer's preferences

The estimation of the models requires a specification of the functional form of the utility function. In this paper, a linear parameters utility function is assumed. The vector X_{ik} in equation 4 above contains bush yam attributes (price, taste, tuber size, storability, cookability and colour change) and attribute levels of bush yam profiles from the choice experiment (see Table 1). The choice experiment was designed with the assumption that the observable utility function follows a strictly additive form. The model was specified so that the probability of selecting a particular bush yam profile was a function of attributes of that profile. That is, for the population represented by the sample, indirect utility from bush yam attributes takes the form below:

$$V_{Cnk} = \beta_1 X_{pur\ price.} + \beta_2 X_{taste} + \beta_3 X_{tubersize} + \beta_4 X_{storage} + \beta_5 X_{cookability} + \beta_6 X_{colourchange} + \beta \quad (7)$$

where β_{1-6} refers to the vector of coefficients associated with the vector of attributes describing the bush yam attributes preferred by consumers.

Estimated coefficient β , is interpreted in terms of the relationship between the explanatory variables and the probability of choice. The constant term was dropped in the above specification of the indirect utility function because the choice sets do not include a status quo or an opt-out option (Bateman et al., 2003).

This is a base model which specifies the utility function with the main effects variables in the choice experiment. Each consumer made repeated choices for ten bush yam profiles.

Several socio-economic factors influence the consumer's preference and choice behaviour in a choice model framework. These factors entered into the models as interactions with the X 's in the utility function in equation (7). Accordingly, the indirect utility function became as presented in equation (8):

$$V_{nj} = \beta_1 X_{\text{pur price}} + \beta_2 X_{\text{taste}} + \beta_3 X_{\text{storage}} + \beta_4 X_{\text{tubersize}} + \beta_5 X_{\text{cookability}} + \beta_6 X_{\text{colourchange}} \\ + \beta_1 (X_{\text{pur price}} * \text{age}) + \dots + \beta_6 (X_{\text{colourchange}} * \text{age}) + \dots + \beta_n (X_{\text{colourchange}} * \text{last se.} \\ \text{xtics}) + \beta_{ik} \quad (8)$$

Equation 8 is the base model which specifies the utility function with the interactive effects variables in the choice experiment.

The Estimation of Willingness to Pay (WTP)

The choice modelling results were used to estimate implicit prices or willingness to pay (WTP) values of the different attributes of bush yam. In the discrete choice model used, decision makers were consumers and the alternatives represent bush yam profiles available. With the assumption that the deterministic component of the consumer's utility function is linear in the explanatory variables (bush yam attributes, X), the simple random utility function for this can be expressed as:

$$U_{ik} = \beta_{ik} + \beta_p P_k + \beta_i X_k$$

(9) where the constant β_{ik} denotes individual's choice-specific intercept for alternative k , β_p is the coefficient for the cost parameter bush yam attribute and β_i represents the coefficient vectors for the other attributes of bush yam, for i^{th} individual consumer. The β_k denotes the cost parameter or price of alternative k , which was included as one of the attributes of the bush yam choice alternative, and X_k denotes the other observed attributes of bush yam choice alternative k . β_p and

β_i were assumed to be random. The implicit prices for the attributes X_k were then estimated as the rate of change in the attributes divided by the rate of change of the cost parameter (marginal rate of substitution) represented as:

$$-\frac{\partial U / \partial X_k}{\partial U / \partial P_k} = -\beta_k \quad (10)$$

where β_i is the coefficient of attribute i and β_p is the price premium coefficient.

Results of the Study

Bush yam consumers' demographic characteristics

The outcome of the study, as presented in Table 3, suggests that about 62 percent of the respondents were females for the pooled sample with majority of this percentage coming from the Central Region followed by Western North Region. This contradicts the findings by Aidoo (2009), who reported about 55 percent of all households (consumers of yam) interviewed were male-headed, which was a reflection of the national situation, where majority (70.5%) of households in Ghana are male-headed (GSS, 2008). This outcome of the study may be because the data were collected mostly at market centres where, in most cases, women were found either buying or selling foodstuffs, hence the female dominance in this study.

The result in Table 3 on age distribution indicates that the average age of consumers was 34.9 ± 12 with majority (82.1%) of them between 21 and 60 years for the pooled sample, and about 9 percent less than or equal to 20 years. This is similar to Aidoo's (2009) finding, who found that majority of consumers in Accra (Greater Accra Region), Kumasi (Ashanti Region), Tamale (Northern Region) and Techiman (Brong-Ahafo Region) were between 30 and 65 years of age, and this group of consumers constituted 77 percent of the sample used in that study. On the educational level of consumers, it was realized in this study that 84 percent of them have had some level of formal education (from primary school through to

the tertiary level). Out of those who had formal education, 68 percent of them have had up to the Senior High School (SHS) level. Again, Aidoo (2009) reported that majority (40%) of consumers in Accra, Kumasi, Tamale and Techiman had either no formal education or attained only basic formal education, whereas 31.6 percent of them have attained secondary or pre-university education and 28.3 percent at the tertiary levels. This also indicates that most of them have attained some level of formal education.

Table 3 also shows that more than half of the respondents were married, indicating that most households in the study areas consume bush yam as part of their meals. This study also reports a mean year of consumption to be 17.2±12 years, demonstrating that most people in the study areas have been consuming bush yam for some years now. This means that they are knowledgeable when it comes to bush yam, and that the right people were selected for this study.

Table 3: *Bush Yam Consumers' Demographic Characteristics*

<u>Variables</u>	<u>Western-N Region</u>		<u>Eastern Region</u>		<u>Central Region</u>	
	Freq	%	Freq	%	Freq	%
Sex						
Male	54	37.0	57	52.3	22	18.5
<u>Female</u>	<u>92</u>	<u>63.0</u>	<u>52</u>	<u>47.7</u>	<u>97</u>	<u>81.5</u>
Age						
Mean = 34.9, SD = 12.1, Mini = 15, Max = 70						
20 & below	16	10.1	15	12.0	3	2.5
21-30	39	26.7	36	28.8	70	58.8
31-40	39	26.7	39	31.2	27	22.7
41-50	28	19.2	18	14.4	12	10.1
51-60	15	10.3	6	4.8	9	7.6
<u>61 through 70</u>	<u>6</u>	<u>4.1</u>	<u>8</u>	<u>6.4</u>	-	-
Educational Level						
No formal education	25	17.1	18	14.4	17	14.3
Primary school	1	.7	2	1.6	-	-
JHS/middle school	76	52.1	48	38.4	22	18.5
SHS	25	17.1	29	23.2	23	19.3
<u>Tertiary</u>	<u>19</u>	<u>13.0</u>	<u>28</u>	<u>22.4</u>	<u>57</u>	<u>47.9</u>
Marital Status						
Single	47	32.2	47	37.6	56	47.1

Married	99	67.8	77	61.6	55	46.2
<u>Widow/widower</u>	=	=	<u>1</u>	<u>.8</u>	<u>8</u>	<u>6.7</u>
Years of consumption						
Mean = 17.2, SD = 11.5, Mini = 1, Max. = 50						
Mean	16.0		19.1		16.6	
Minimum	5		2		1	
Maximum	50		50		40	
Standard deviation	11.7		11.9		10.7	
Mode	10		20		20	
Median	12		18		18	

n

n = 390

Discussion of Results

Consumers Ranking of Bush Yam Attributes Importance

This paper used Kendall's coefficient of concordance to rank the attributes of bush yam. Bush yam consumers rated how important the attributes are to their choice of a particular bush yam profile. The researchers assigned scores to the ratings of the responses, where 1= most important preferred attributes, and 6 being least important preferred attribute. Table 4 presents the descriptive statistics of the bush yam attributes included in the choice experiment as well as the rankings of these attributes by the consumers. It is worth mentioning that respondents were asked to rank the bush yam attributes using the scores (1-6).

The result shows that taste was rated to be the most important attribute consumers consider when making the decision to choose a particular profile of bush yam they prefer and so it was ranked first. This is consistent when it comes to making a rational decision about the quality of a food stuff, and it is not surprising that the respondents considered taste to be paramount among the other attributes, most importantly, when the yam in question is tagged not to have a good

taste by most Ghanaians. This was followed by the yam's ability to store for long (storability). This was actually expected, since it is believed by most people that the yam has short shelf-life, and we expected that storability would be one of the most important attributes consumers would look out for when buying bush yam. Again, the size of the tubers, cookability and colour change took the third, fourth and the fifth positions, respectively, in terms of the rankings. Price, which was one of the variables included in the experiment, is rated least, which means that all the consumers would not want to consider the price of the yam before purchasing. This also suggests that once consumers are satisfied with the qualities of the bush yam, they will go ahead and buy without considering how much it costs.

The result of the Kendall's W test statistics, as indicated in Table 4, shows that an agreement exists among consumers on the ranking of bush yam attributes at 1% alpha level with 5 degrees of freedom. However, Kendall's coefficient of concordance (W) of 0.375 indicates a moderate degree of unanimity among consumers, which could be attributed to different geographical areas of the study areas. In order words, bush yam consumers in the study areas agreed on the rankings of the attributes that affect their preference but at moderate degree.

Table 4: *Descriptive Statistics of the Attributes Included in the Choice Experiment*

ATTRIBUTES	N	MEAN	STD. DEVIATION	MEAN RANK
Price	2988	5.07	1.525	6 th
Taste	2988	1.60	1.216	1 st
Size	2988	3.37	1.519	3 rd
Storability	2988	3.24	1.120	2 nd
Cookability	2988	3.60	1.302	4 th
Colour Change	2988	4.11	1.364	5 th
Test Statistics				
N	2988			
Kendall's W	.375			
Chi-Square	5601.278			

Df	5
Asymp. Sig.	.000

Consumers' Bush Yam Attributes Preferences

This part presents the results of the econometric modelling estimations of consumers' choice behaviour and bush yam attributes preferences. A total of 299 complete choice experiment interviews were carried out, yielding panel data of 2990 complete choice sets. Table 5 presents the results of the maximum likelihood estimates for consumers' preferences for bush yam attributes from conditional logit estimates for the pooled sample and the subsamples. As can be seen from the results (Table 5), most of the regressors in the whole sample are statistically significant, which suggests that the attributes selected for the choice experiment survey were generally what consumers would consider to be among the most important factors when buying bush yam. This stands to suggest that the attributes selection in the design of the choice experiments are appropriate to meet consumers' preference as was also the case of the study of Okoffo et al (2016). The results (Table 5) from the whole population show that all the choice specific attributes are significant except for the *Cookability* attribute that showed insignificant but positive coefficient. This shows that they are important factors in the choice of bush yam and that any of the significant attributes increases the probability of selecting bush yam with those attributes as also implied in the interpretation of the findings of Mohanty *et al* (2019).

The coefficients of *Purchased Price* and *Storability* are, of course, negative, and significant as expected. This means that consumers prefer lower prices for the attributes and they will not select bush yam with higher price. The consumers also want bush yam that can be stored for a long time and, therefore, their negative utilities, for those two attributes are not surprising. Noteworthy, however, the price or affordability is the most important consideration when shopping (Ndungu, 2013), hence bush yam needs to be perceived as affordable in order to increase consumption by consumers.

The result also shows that *Purchased Price* is negatively significant at 1% alpha level in the pooled sample, but negatively insignificant at 1% alpha level across the subsamples. *Taste* attribute is also positive and statistically significant at 1% alpha level in the pooled sample but positively insignificant at 1% alpha level across the subsamples. *Tuber Size* and *Storability* attributes of bush yam are statistically significant at 1% alpha level in both the pooled sample and the

subsamples, which means that all consumers who participated in the study pay attention to the tuber size and storage ability of bush yam when making a choice. Whereas *cookability* attribute is positive and not statistically significant in the pooled sample and Central Region sub-sample, it is positive and statistically significant in the Western North and Eastern Regions sub-samples at 1% alpha level, indicating that consumers in the Western North and Eastern Regions are very much interested in the ability of bush yam to cook well.

Table 5: *Maximum Likelihood Estimates from Choice Experiment Data for Consumers Using Conditional Logit*

Attributes	Coefficients	Std Errors	Sig.
<i>Estimates from Pooled Data</i>			
PurchasedPrice	-.271	.041	.000***
Taste	.206	.039	.000***
TuberSize	.480	.034	.000***
Storability	-.170	.024	.000***
Cookability	.007	.034	.831
ColourChange	.363	.036	.000***
<i>Estimates from Western Region</i> -.066			
PurchasedPrice		.071	.355
Taste	.116	.065	.076*
TuberSize	.574	.058	.000***
Storability	-.289	.044	.000***
Cookability	.797	.077	.000***
Colour Change	.375	.058	.000***
<i>Estimates from Eastern Region</i>			
PurchasedPrice	-.083	.082	.312
Taste	.046	.066	.481
TuberSize	.326	.063	.000***
Storability	-.199	.048	.000***
Cookability	.392	.074	.000***
ColourChange	.130	.066	.051*
<i>Estimates from Central Region</i>			
PurchasedPrice	-.324	.138	.019**
Taste	.057	.110	.600

TuberSize	.312	.082	.000***
Storability	-.292	.062	.000***
Cookability	.151	.088	.088*
ColourChange	.091	.092	.324

Omnibus test of model coefficients

Pooled Data

Chi-square	508.920	.000
-2log Likelihood	42650.104	

WesternNorth Region

Chi-square	167.687	.000
-2log Likelihood	13024.630	

Eastern Region Chi-

square	54.148	.000
-2log Likelihood	9192.274	

Central Region Chi-

square	39.241	.000
-2log Likelihood	3816.101	

***significant at 1%, **significant at 5%, *significant at 10%

Hypotheses testing

To compare if parameter estimates of the pooled model for consumers are shared across the three different study areas or regions, separate conditional logit models have been calculated to obtain estimates for each study area. The hypotheses tested were:

- a. $H_0: \beta_{\text{Pooled sample}} = \beta_{\text{Western Region}}$ and $H_A: \beta_{\text{joint sample}} \neq \beta_{\text{Western Region}}$
- b. $H_0: \beta_{\text{Pooled sample}} = \beta_{\text{Eastern Region}}$ and $H_A: \beta_{\text{joint sample}} \neq \beta_{\text{Eastern Region}}$
- c. $H_0: \beta_{\text{Pooled sample}} = \beta_{\text{Central Region}}$ and $H_A: \beta_{\text{joint sample}} \neq \beta_{\text{Central Region}}$

The null hypotheses that state the parameter estimates of all the models from the pooled sample and the sub-samples are equal were tested against the alternative hypotheses that they were not equal. This has been done by checking if the loglikelihood function from the conditional logit estimation for the different subsamples is significantly larger than the pooled sample log-likelihood function. The results from hypotheses tests are as shown below.

$L_{Pooled\ sample} = 42650.104$ and $L_{Western\ Region} = 13024.630$

$L_{Pooled\ sample} = 42650.104$ and $L_{Eastern\ Region} = 9192.274$

$L_{Pooled\ sample} = 42650.104$ and $L_{Central\ Region} = 3816.101$

The null hypotheses a, b and c were rejected since results from hypothesis test were statistically different and, consequently, should not be put together.

Attributes consumers consider important when making choice

From the results in the estimates in Table 5, the top three attributes' consumers consider very important in making a decision to choose bush yam were the size, colour change and the taste. Consumers consider size of bush yam as an important attribute in taking a decision. This is followed by whether or not the colour of the tuber flesh changes after cutting or peeling, and then, thirdly, whether the bush yam has a sweet taste, tasteless or bitter.

Influence of consumers' demographic characteristics on their choice of attributes

In this study, we interacted numerous demographic variables with the attribute levels to assess their influence on attribute preferences, using conditional logit models. The results were reported after the interaction terms were tested by removing the insignificant interaction terms as revealed by their p-values one after the other and then re-estimating the model over and over again until only the significant ones remained. This means that, out of the 31 possible interactions, only those interactions that were significant at 10% level are reported. The results are, therefore, presented in Table 6.

The results in Table 6 revealed that age, education, marital status, and years of consumption affect consumers' choices and preferences for bush yam attributes at 1% significance level. The results indicate that when the socio-demographic characteristics are included, *Cookability*, which was not significant, is now statistically positively significant (this shows that most of the positive utility derived from *Cookability* attributes of bush yam is explained by the interaction terms between this attribute and the demographic characteristics). However, *Purchased Price* and *Colour Change* attributes are now statistically insignificant while *Taste*, *Tuber Size*, and *Storability* remained statistically significant. This shows that the inclusion of socio-economic characteristics of decision makers is one way of explicitly accounting for observed preference heterogeneity, as explained by specific observable characteristics of consumers in the model (Fungo et al, 2016; Zulu, 2019; Fungo et al, 2018). The interaction between *Educ* (education) and *Taste* was statistically and positively significant but negatively

significant with *Cookability*. This means that consumers with higher educational levels are likely to choose bush yam which cooks well and has good or sweet taste. This finding is consistent with that of Asante, Osei-Asare, and Kuwornu (2016).

Furthermore, the interaction effect between *Yrs_Consum* (number of years of consumption) and *Size* and *Cookability* produced a negative significance at 1% level, indicating that consumers who have consumed yam for so long are more likely to consider size of the yam tuber and the colour change when peeled or cut in their preferences for bush yam. The interaction between *Age* and *Colour Change* is also positive and significant, indicating that older consumers prefer bush yam with no colour change after peeling. Also, the interaction between *Marital Status* and *Size* is positive and significant, which means that consumers' marital statuses affect their choice of bush yam in terms of size. This may be due to the fact that people who are married with children would choose big size tubers for satisfaction.

Test of hypothesis: Here, the null hypothesis that states the regression parameters for the restricted and the unrestricted models (for consumers) are equal was rejected under a log-likelihood ratio test. The test statistics was 24554.458, which is larger than 300.234, the critical value of chi-square distribution at 12 degrees of freedom and 1% significance level. This implies that the conditional logit model with interactions which allows taste variations fits the data better than the conditional logit model without interactions that assumes fixed taste parameters.

Table 6: *Conditional Logit Estimates for Bush Yam Attributes with Consumers' Demographic Factors*

Variables	Coefficient	Standard Error	Sig.
PurchasedPrice	-.072	.050	.148
Taste	-.425	.086	.000***
TuberSize	.381	.088	.000***
Storability	-.273	.029	.000***
Cookability	.940	.093	.000***
ColourChange	.121	.081	.134
Educ*Taste	.180	.029	.000***
MaritalStatus*TuberSize	.154	.052	.003***
TuberSize*Yrs_Consum	-.009	.003	.000***
Cookability*Educ	-.152	.029	.000***
Age*ColourChange	.010	.002	.000***
ColourChange*Yrs_Consum	-.011	.003	.000***

Omnibus test of model coefficients

Chi-square	300.234	.000
-2 Log Likelihood	30372.875	

***significant at 1%, **significant at 5%, *significant at 10%.

Consumers' Willingness to Pay (WTP) for Bush Yam Attributes

The marginal attribute prices from the conditional logit model have been derived, using individual conditional constrained parameter estimates and are presented in Table 7. The estimates are validated, using the survey data and current market prices. The result in Table 7 indicates that for the pooled sample, consumers were willing to pay GH¢0.76 more for bush yam *taste* attribute in order to obtain an improvement in the taste of bush yam. Again, the consumers are willing to pay GH¢1.77 more for an increase in size of bush yam tubers, GH¢0.63 more for an increase in the period of storage (*Storability* attribute), GH¢0.03 more for an improvement in *Cookability* attribute and GH¢1.34 more for an improvement in the *Colour Change* attribute. These values indicate that consumers value size and colour change more than the other attributes.

The WTP results from the three regions of study show that consumers from Western Region are willing to pay more than their counterparts in the other regions. Moreover, while the consumers in the Western and Eastern Regions value *Cookability* attribute more than other attributes, those from the Central Region value *Size* attribute more than other attributes. It can be realized that WTP value from Western Region are very high, indicating the importance consumers place on the attributes of bush yam.

The results prove that consumers do not look for a single attribute of the bush yam when making their selection decisions but also other more important, but non-tradable attributes, like *Colour Change*, and thus forcing them to make difficult trade-offs. Several studies have been conducted to examine how consumers evaluate different product attributes in numerous food products, including yam. For instance, Bech-Larsen, Grunert and Poulsen (2001) indicated that health, nutrition, taste, price, quality, colour, storability, cookability and convenience, among other attributes, are some of the criteria consumers use to determine which product (yam) is more attractive. Blaylock, Smallwood, Kassel, Variyam and Aldrich (1999) also stated that consumers face many trade-offs in their food choices, for example, between nutrition and price, as well as nutrition and convenience. The findings from this study also support the study by Bonilla

(2010), who found that United State consumers were willing to make trade-offs to obtain packaging and labelling attributes when choosing 100% fruit juices.

Table 7: Consumers' Willingness to Pay (WTP) Estimates

Attributes	WTP (GHC)			
	Pooled Dat	Western Nor	Eastern	Central
Taste	0.76	1.76	0.55	0.18
Size	1.77	8.70	3.93	0.96
Storability	0.63	4.38	2.40	0.90
Cookability	0.03	12.08	4.72	0.47
Colour Change	1.34	5.68	1.57	0.28

NB: US\$1.00 = GHC4.40 at the time data was collected

Conclusion

Our examination of consumers' preferences for bush yam attributes, using discrete choice model (conditional logit) revealed that cultivar attributes, such as *tuber size*, *colour change* and *taste*, were their most preferred attributes of bush yam. It was also concluded that consumers have strong preferences for *tuber size*, no *colour change* and *taste* more than the other attributes of bush yam. The age, educational level, marital status, and years of consumption affected consumers' preferences for bush yam attributes. The estimated willingness to pay amounts revealed that consumers were willing to pay more for an improvement in *tuber size*, the *colour change* and the *taste* attributes of bush yam. Consumers at this point cannot accept bush yam with bad taste and unpleasant colour change after cutting or peeling. This has an important implication for breeding of bush yam varieties and for subsequent commercialization.

The policy implication of the findings in this paper is in the area of breeding priority setting. The results show that consumers attach greater importance to certain bush yam attributes. Therefore, for any breeding programme, given that consumers' preferences for cultivar attributes determine, to a large extent, their choice of bush yam, breeders should satisfy the demands of the consumers of bush yam. The National Agricultural Research Systems (NARS), which mainly deals with crop breeding programmes in Ghana, should, therefore, prioritize these attributes in their direct or supportive breeding programmes in the future to satisfy consumers' taste for bush yam.

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Statement of No Conflict of Interest

We the authors of this paper hereby declare that there are no competing interests in this publication.

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Elements of Working Conditions and Retention of Course Tutors in Distance Education in Ghana

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Abstract

This study examined the relationship between elements of working conditions and retention of course tutors facilitating distance academic programmes in Ghana. The descriptive cross-sectional survey design from the quantitative approach was adopted for the study. A sample of 612 tutors was drawn with the help of simple random and stratified sampling techniques from a study population of 2,700 from two public universities in Ghana—the University of Cape Coast and the University of Education, Winneba. The study adopted the Partial Least Square Structural Equation Modelling technique for the analysis of the results. It was found that elements of working conditions, such as compensation, workload and welfare, had a statistically and significant relationship with retention of course tutors. In conclusion, compensation, workload and welfare influence retention of part-time academic staff in distance education programmes in Ghana. Therefore, it was recommended that the management of the two universities should introduce attractive compensation and welfare packages for their course tutors facilitating their distance education programmes. It was also suggested that tutors assist in the enrolment drive for students, since more students lead to better working conditions through the workload as an element of working conditions.

Keywords: Working Conditions, Course Tutors, Distance Education, Retention, Ghana

Introduction

The role of education for national development is rooted in the sustainable development goal four guiding the global developmental agenda until 2030 (ILO, 2015). Educational institutions in recent times have resorted to distance education mode to overcome the infrastructural limitation and to make education accessible to both the working and non-working population (Segbenya, Oduro, Peniana & Ghansah, 2019), especially during the COVID19 pandemic and its associated protocols, such as a ban on social gathering and lock-down. To deliver this, educational institutions depend on academic staff who are found closer to the location of the learners. The academic staff category is rapidly changing from full-time permanent to part-time (course tutors) as the full-time and permanent staff of these provider institutions may not be able to travel to and from these various study centres to deliver tuition.

Retention of course tutors (part-time academic staff) is necessary because, apart from being the most valuable asset to an institution, their retention would help reduce the cost of recruiting and hiring new lecturers. Recruiting applicants entails spending time and financial resources to attract applicants. According to Segbenya (2012), hiring a new worker is far expensive, as compared to the cost of maintaining an existing talent. That is, the management of existing workers are very familiar with factors that could induce them to stay with the organisation. Additionally, the repetition of the cost of the employment process and other costs associated with lost talents are avoided whenever existing workers are retained. Thus, costs of lost sales, lost productivity, training cost, and recruitment costs are curtailed when an organisation retains its present workers (Enu-Kwesi, Koomson, Segbenya & Annan Prah, 2014).

Also, tutors with longer tenure are conversant with what their institutions require from them and can better respond to or meet such demands (Enu-Kwesi et al., 2014). According to the authors, it takes some time for individual workers to understand, adapt and trust team members at the workplace. Thus, adjustment problems crop up when an existing talent is replaced with a new one. According to Enu-Kwesi et al. (2014), the rationale for retaining existing talents is due to the crucial role they play in meeting the expectation of creditors, customers, investors, among others.

Lost talents most often leave their organisation with bitter experience and skills acquired as well as organisational secrets. These experiences and organisational secrets are, therefore, taken along and made available to the next place or work or organisations that could serve as competitors of the previous place of work (Klopper & Power, 2014). Existing workers' confidence in their organisations is also affected when work colleagues leave the organisation, which adversely affects the level of output and productivity. Even though educational institutions can benefit from turnover in the short run, in terms of reduced salary expenditure, the lost talent is likely to join competitors with business secrets, policies, and strategies from the current organisation to the new one. Thus, the need to retain the existing valuable employees is more urgent than ever (Klopper & Power, 2014).

Conducive or decent working conditions, as captured under the sustainable development goal eight, target eight, could be a catalyst for retaining this category of academic staff. Working conditions cover a wide scope, including rest periods, hours of work, work schedules, remuneration, physical and mental demands existing in the workplace (International Labour Organisation, 2018). This means that employers of course tutors (part-time academic staff) should strategically direct their efforts at understanding factors that influence the retention of these academic staff and take measures to ensure that these workers remain with their institutions as long as practicable. Several factors that have the propensity to influence the long-term retention of workers have been identified in the literature. Pay and organisational policies have constituted the job context perspective, while interesting job, autonomy, responsibility, challenging tasks characterised the job content aspect of the Herzberg two-factor theory (Segbenya, 2012).

Klopper and Power (2014) identified that teaching workloads play a key role in the retention of academic staff. Also, Bigirimana and Masengu (2016) specifically identified compensation/salaries and welfare as precursors of tutors' retention. All these factors of retention emanate from both the job context and the job content, which is wholly termed as the working conditions of course tutors (ILO, 2018). All the studies by Klopper & Power (2014), Bigirimana and Masengu (2016) and Masanja (2018), among others, have largely been limited to mainstream full-time university lecturers. Studies conducted in Ghana on

retention and working conditions have been limited to job security (Friedrich Ebert Stiftung [FES] Ghana, 2011), and bank workers (Enu-Kwesi et al., 2014)). Other studies in Ghana were on antecedents of occupational stress among health workers at the Salaga Government Hospital, Ghana (Benduri et al., 2019), and how working conditions impact the health of bank workers at the Ghana Commercial Bank Limited in the Ashanti zone (Brobbe, 2016). All these studies were either on academic staff in Ghana but centred on a single institution or were not on working conditions of part-time academic staff (course tutors). Thus, there is a paucity of research in the literature under which course tutors in the distance education programmes of public universities in Ghana work. Additionally, there is a paucity of research on the influence of working conditions on course tutors' (part-time academic staff) retention in Ghana.

Management of the University of Cape Coast and the University of Education, Winneba continue to experience employee turnover in their distance education programmes. New part-time academic staff are appointed every semester based on vacancies occasioned by employee turnover, among others (Segbenya & Nyieku, 2021). It is not clear what factors could be used by management to retain their valuable part-time academic staff. Thus, the need to examine how compensation, workload and employee welfare could be a launchpad for achieving retention for part-time academic staff is essential.

Meanwhile, other tertiary institutions, such as technical universities and private universities, in Ghana have begun some sort of distance education programmes and the possibility of poaching these experienced course tutors of the University of Cape Coast and the University of Education, Winneba is very high. Thus, the need to examine the elements of working conditions, such as workload, welfare and compensation of tutors, on the distance academic programmes of the two public universities and how it leads to retention of this category of academic staff has become necessary than ever.

This study, therefore, contributes to the literature on the retention of part-time academic staff by explicitly examining how rewards, welfare, and workload influence the retention of course tutors. These issues are examined across the two premier and largest universities in distance education in Ghana—University of Education, Winneba, and University of Cape Coast—and to have a holistic view of issues considered in this study rather than a single

case study as in previous studies (Segbenya et al., 2019, Osafo, 2017). The main objective of this study was to examine the relationship between elements of working conditions and retention of course tutors facilitating distance academic programmes in Ghana. The study is guided by three hypotheses such as:

Hypotheses of the Study

Three hypotheses guiding this study were: Hypothesis

1:

H₀: Course tutors' workload has no significant relationship with their retention in distance education programmes of University of Cape Coast and University of Education, Winneba, Ghana.

Hypothesis 2

H₀: Course tutors' welfare has no significant relationship with their retention in distance education programmes of University of Cape Coast and University of Education, Winneba, Ghana.

Hypothesis 3

H₀: Course tutors' compensation has no significant relationship with their retention in distance education programmes of University of Cape Coast and University of Education, Winneba, Ghana.

The next section of the paper focuses on the conceptual review on working conditions, theoretical review on working conditions on the distance education mode, methodology, results and discussion and conclusion and recommendations.

Literature Review

Conceptual Review

Work conditions relate to all existing circumstances in the working environment, such as psychological and physical working environment, terms of an employment contract because of the interaction of employees with their organisational climate (Yassin, Ali & Adam, 2013). The four strategic goals of the ILO's decent work framework are remunerative employment, workers' rights, social dialogue and social protection. In this study, indicators of decent

working conditions of course tutors looked at were tutors' workloads, compensation and welfare of course tutors.

Workloads of part-time academic staff (course tutor) on distance education programmes describe the extent to which the tutor is engaged and may constitute teaching, research and administrative duties (Segbenya, 2012). The workload of part-time academic staff on the distance programmes in Ghana has been found by Segbenya and Nyieku (2021) to entail teaching load (i.e., number of courses, classes, and students taught), invigilation and marking of students' assignments/examination scripts. Other components of the course tutors' workload comprised supervising students' projects/research work and teaching practice (Segbenya & Nyieku, 2021).

Compensation comprises tangible and intangible financial and nonfinancial rewards that workers obtain for their services (Segbenya, Aggrey & Peniana, 2019). As used in this study, compensation is limited to only the tangible financial reward or extrinsic reward (allowance) for non-standard academic staff teaching on the distance education mode. According to Segbenya et al. (2019), extrinsic reward plays a dominant role in workers' lives because it is a crucial determinant for workers' decision to stay on a job. One of the employers' most influential motivational tools to influence workers' stay is extrinsic rewards (Armstrong & Murlis, 2007). Sthapit (2014) found that pay growth affects turnover intentions among talented employees' categories, as compared to other categories of staff.

Employee welfare relates to the provision of varied facilities and amenities in and around the workplace for the better life of the employees (Chaubey & Rawat, 2016). These welfare facilities for workers have been found to have a significant influence on the sentiments of the workers. The tendency of a worker to grouse and grumble could easily disappear when workers feel that the employers and the state are interested in their welfare or happiness (Chaubey & Rawat, 2016). Organisations provide welfare facilities to their employees to keep their motivation levels high. As used in this study, the welfare dimension looked at the indirect non-financial entitlement associated with teaching on the distance education mode (Segbenya & Nyienku, 2021). Welfare for non-standard part-time academic staff (course tutors) on the distance education mode cover benefits associated with their engagement, such

as death benefits, hospitalisation or sickness benefits, retirement benefits, and end of service benefits (Segbenya & Nyieku, 2021). Neglect for staff welfare has been found to be able to influence underperformance among workers (Chaubey & Rawat, 2016; Okereke & Amgbare, 2010).

Theories Underpinning the Study

The Herzberg two-factor theory—hygiene factors and motivators—was used to explain both the job content and context of the course tutors' working conditions. The theory argues that the presence of hygiene or maintenance factors in the job context serves to prevent dissatisfaction among workers, but, if absent, it could lead to “no dissatisfaction”. These factors were pay and security, company policy, supervision, interpersonal relationship and relationship with peers (Enu-Kwesi et al., 2014). On the other hand, the growth and motivators (other factors) are related to the job content (Mullins, 2010). These factors were growth, achievement, responsibility, recognition, advancement opportunities and interesting work. The theory remains relevant for this study because the hygiene factors perspective explains the factors considered in this study. The job context perspectives of the course tutor in terms of welfare, workload, and compensation are explained by the Herzberg two-factor theory. Thus, this study tests the theory from the developing economy's perspective to ascertain whether the job context factors contribute to the retention of part-time academic staff in Ghana.

Empirical Review

In terms of what is known in literature at the global level on the working conditions of academic staff, Jawabri (2017) examined the job satisfaction of academic staff in higher education of private universities in UAE. A survey design from the quantitative perspective was used to collect data from 212 academic staff in 15 private universities in UAE. The study found that there was a high level of job satisfaction among academic staff of the private universities in UAE. Factors found to have positively influenced job satisfaction were promotion, supervisor support, and support from colleagues. Recognition and rewards were rather found to have had a negative impact on job satisfaction among academic staff in UAE.

Segbenya and Nyieku (2021) examined the demographic determinants of job satisfaction among part-time academic staff at the University of Cape Coast. The study adopted the quantitative approach and the descriptive survey design. A sample of 526 from a study population of 2700 part-time academic staff was drawn. The data collection instrument was a questionnaire. The statistical tool for data analysis was an independent sample t-test and one-way analysis of variance (ANOVA). The study found that gender had a statistically significant effect on welfare, and compensation and professional development were statistically and significantly influenced by rank. Tenure also statistically and significantly influenced compensation among part-time academic staff. Therefore, it was recommended that the management of the university pay attention to gender when introducing a college or university level policy to take care of the welfare of part-time academic staff.

Salau, Worlu, Adewale Osibanjo¹, Anthonia Adeniji, Falola¹, Olokundun, Ibidunni¹, Atolagbe, Dirisu, and Ogueyungbo (2020) investigated the impact of workplace environments on retention outcomes of Public Universities in Southern Nigeria. A descriptive cross-sectional design was adopted to elicit information from 384 academic staff, using a questionnaire. The Structural Equation Modelling (SEM_PLS) was used to analyse the quantitative data obtained for the study. The study found significant factors of concern to lecturers, including sharing dilapidated offices, poorly ventilated and furnished offices, varying promotion criteria, erratic power supply, overcrowded classrooms and a growing disparity in the ratio between teaching staff and students. Therefore, the study recommended strategies, such as creating an enabling environment, adequate funding of tertiary education, effective administration and motivation of staff of the sampled institutions, among others, for curbing this menace in state universities.

Khalid and Nawab (2018) conducted a study on the relationship between types of employee participation (delegative, consultative, worker director, and worker union) on employee retention and the moderation of employee compensation in the relationship. A sample of 1,054 was drawn from the service and manufacturing sectors of Pakistan, using a questionnaire. The statistical tools used for data analysis were descriptive statistics, correlation, univariate analysis, multiple regression analysis, and independent-sample *t*-test. It was

found that all types of employee participation influence employee retention positively in both sectors. Employee compensation moderated the relationship between types of employee participation and employee retention. Delegative participation had a stronger influence on retention, as compared with other types in both sectors. The study recommended that organisations of both manufacturing and service sectors develop such practices, which could enhance employee engagement and voice within their task-related decisions to enhance employee retention.

Fahim (2018) explored the dynamics of using strategic human resource management (SHRM) practices in attaining employee retention in the public sector, using the National Bank of Egypt (NBE) as a case study. A descriptive design from the quantitative approach was adopted for the study. A questionnaire was used as the data collection instrument. The data analytical tool was the Pearson correlation coefficient. The study found that the employment of best HRM practices is deemed a remarkable strategic tool in retaining core public employees. Also, the results of the analysis provide evidence that SHRM contributes to employee retention at NBE. The study recommends that management devise effective policies to improve employee retention, using appropriate SHRM activities, particularly in the Egyptian public organisations.

Thus, the relationship between the variables of the study based on the literature review is depicted in Figure 1. Workload, welfare and compensation in Figure 1 represent the independent variables of the study and tutor retention represents the dependent variable of the study. The study conjectured (as captured in the study's hypotheses and depicted in Figure 1) that there is a relationship between the independent and dependent variables. Thus, the relationship could affect the retention of tutors on the distance education programmes in Ghana. Therefore, tutors could be retained if proper attention is given to the independent variables of the study.

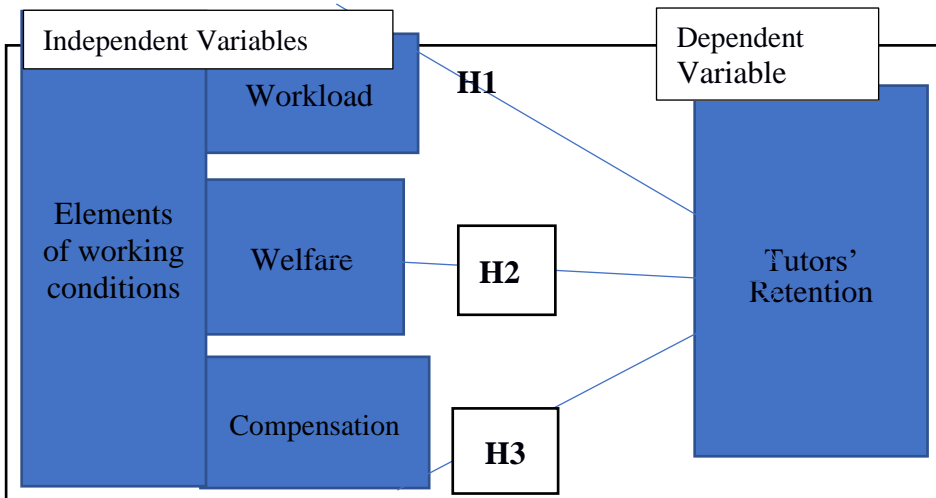


Figure 1: Structural Relationships

Source: Authors' Construct

Methodology

The descriptive cross-sectional survey design was used to collect data from a large pool of respondents. Due to the need to collect data from a large sample and generalising the study's outcome to the study population, the descriptive design and the quantitative approach were considered the most appropriate for this study. Thus, despite the inherent disadvantages of being very expensive, the quantitative approach was still used because the advantages and suitability for this study overshadowed the weaknesses. A multi-stage sampling technique, including simple random and stratified sampling techniques, was used to select 612 respondents from a population of 2,700 (CoDE, 2021) with the help of Krejcie and Morgan's (1970) table for samples determination. These sampling techniques were deemed appropriate due to the quantitative approach adopted for this study. Additionally, these techniques provided equal opportunity for all units in the population to be selected. The techniques also ensured a fair representation in terms of sub-groups within the population in this study.

The data collection tool was a self-administered questionnaire for quantitative data collection, which was analysed with the help of the SmartPLS

software—structural equation modelling (PLS-SEM) technique. Common method bias (CMB) was addressed by ensuring that the questionnaire dealt with respondents' privacy, using diverse measures from varied sources and separate sections for measured items. The principal component analysis extraction method and exploratory factor analysis were used to deal with Common method bias. The self-administered instruments were divided into two, with part one dealing with demographic characteristics and part two focusing on the study's research questions. Data collection was done from June to August 2019. All ethical considerations, such as informed consent, privacy, freedom to opt-out despite starting the process, anonymity, among others, were discussed with respondents and agreed upon before data was collected.

Description of Measurement Items

The questionnaire used comprised 30 items for the five variables of the study. The items were adopted from Klopfer and Power (2014) on workload, Bigirimana and Masengu (2016) on compensation and welfare, and Enu-Kwesi et al. (2014) on employee retention. The partial least square structural equation modelling was used to analyse the data. The choice of the analytical tool was based on the hypotheses guiding the study. That is, the study sought to examine how course tutors' compensation, workload and welfare significantly relate to retention of part-time academic staff. To enhance the strength of the model, only items loaded with a value of 0.70 and above were assigned to their respective construct. The use of reflective modelling of the construct ensured that items removed with a loading value below 0.70 do not pose any structural model problem. The SEM model's strength was determined by evaluating the convergent discriminant validity, using the Average Variance Extracted [AVE], Fornel-Lacker criterion of the model, and reliability, using Cronbach's Alpha and composite reliability. Henselaer, Ringle and Sarstedt's (2015) and Baah, Amponsah, Issau, Ofori, Acquah and Agyeman's (2021) Criterion of Composite Reliability (CR) and Cronbach alpha value of 0.50 and above, as well as a value 0.70 of and above, were used as thresholds. *Evaluating the Structural Model*

The PLS-SEM was used, and Table 1 provides information for an assessment of the structural model. It is clear from Table 1 that the Cronbach alpha and

CR values obtained were respectively within 0.721 and 0.894, suggesting high reliability of constructs which further confirms that the model achieved reliability.

Table 1: Construct Reliability and Validity

Construct	Factor loadin	VIF	Cronbach' rho_A alpha	Composite reliability	(AVE)
Compensati					
COMP2	0.715	1.292			
COMP3	0.799	2.479	0.802		
COMP4	0.858	2.851		0.804	0.871
COMP5	0.792	1.578			0.628
Retention					
RET1					
RET5	0.760	1.296			
RET6	0.829	1.577	0.721	0.722	0.844
Workload					
WKL2					
WKL3	0.893	2.118			
WKL4	0.763	1.609	0.824	0.864	0.894
Welfare					
WLF1	0.915	2.546			
WLF2					
WLF3	0.838	2.012			
WLF4	0.808	1.802			
	0.893	2.424	0.830	0.859	0.886
	0.705	1.478			0.662

Source: Field data (2021)

Determining the convergent validity by using AVE, as can be seen in Table 1, also confirms that the AVEs obtained for the constructs of the study were between 0.628 and 0.739. These figures were far above the *0.50 minimum threshold*, suggesting convergent validity of the constructs of the study.

Convergent validity, according to Henseler et al. (2015) and Baah et al. (2020), shows how a construct has truly been represented by a set of indicators that were used to measure it. Multicollinearity was also checked for the constructs of the study, using variance Inflated Factor (VIF), and the results are found in Table 1. The findings suggest that all values obtained were *below 3.0*, implying that there was no multicollinearity threat.

The Fornell-Lacker Criterion (FLC) was also checked, and the results are presented in Table 2. The FLC, according to Baah et al. (2020), states that the AVE’s square roots of a construct should not be lower than the results of how other constructs relate with it in the model. It is, therefore, evident that discriminant validity was attained (See Table 2).

Table 2: Fornell-Larcker Criterion

1	COMP	0.793			
2	RETN	0.430	0.802		
3	WKL	0.319	0.462	0.859	
4	WLF	0.262	0.437	0.349	0.814

Source: Field data (2021). COMP= Compensation, RETN= retention, WKL= workload, WEF= Welfare

Results of the Study

The results for the three hypotheses of the study are presented in Table 3. The R^2 supported by the adjusted R^2 values, as shown in Table 3, is used to explain the variance in retention of course tutors explained by compensation, workload and welfare. Thus, the R^2 of 0.363 indicates that the three independent variables, such as compensation, welfare, and workload, explain about 36.3 per cent variance of employee retention among facilitators on the distance education mode in Ghana. It also means that there is about 63.7 per cent variance in retention that could be explained by other constructs not included in the model. This is equally supported by the results presented in Figure 2.

Table 3: Structural Model

Construct	R ²	Adjusted R ²
Ret	0.363	0.360

Path	Beta value	Mean VI deviation (M)	Standard deviation	T-coefficients	P-values	F2 Hypotheses	Inference
1. COMP -> RETN	0.270	0.264	0.094	2.882	0.004	Supported	1.146
2. WKL > RETN	0.268	0.262	0.112	2.395	0.017	Supported	1.172
3. WLF > RETN		2			7		2

Source: Field data (2021), Effect size (**f-square**) (>= 0.35 is large; >= 0.15 is medium; >=0.02 is small)

Testing of Hypotheses

The first hypothesis (H1) of the study was that “tutors’ workload statistically and significantly relates to their retention in the distance education mode in

Ghana.” The results for the study’s first hypothesis can be seen in the second row in Table 3 (supported by the results in Figure 2). The results ($\beta=0.283$, $T=2.027$, $p= 0.043$) clearly indicate that course tutors’ workload had a positive and significant relationship with their retention on the distance education mode in Ghana. Thus, the null hypothesis that “*Course tutors’ workload has no significant relationship with their retention in distance education programmes of the University of Cape Coast and the University of Education, Winneba, Ghana*” was not supported.

The study’s second hypothesis (H2) also states that “*Course tutors’ welfare has no significant relationship with their retention in distance education programmes of University of Cape Coast and University of Education, Winneba, Ghana*” was also tested. The results (See Row 3 in Table 3) ($\beta=0.268$, $T=2.395$, $p= 0.017$) is a clear indication that tutors’ welfare positively and significantly relates to their retention in the distance education mode in Ghana. Based on the results and supported by what is presented in Figure 2, the study, therefore, rejects the study's null hypothesis.

Hypothesis three of the study (H3) also states that “*Course tutors’ compensation has no significant relationship with their retention in distance education programmes of University of Cape Coast and University of Education, Winneba, Ghana.*” The results are presented in Table 3 and Figure 2. The individual contribution of tutors’ compensation was ($\beta=0.270$, $T=2.882$, $p= 0.004$) to employee retention. The results indicate that tutors’ compensation positively and significantly relates to their retention in the distance education programmes in Ghana.

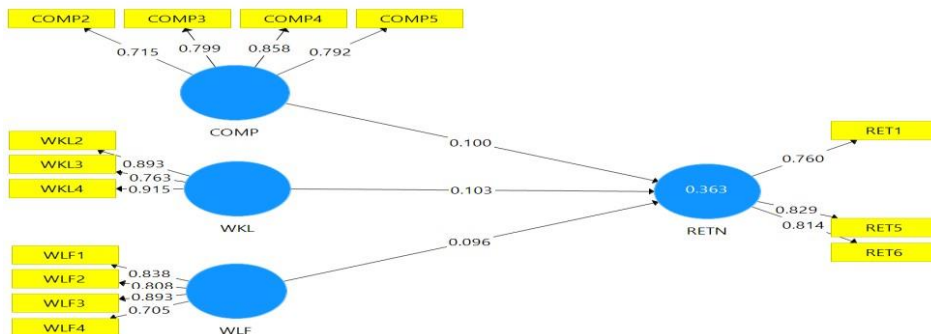


Figure 2: Structural Model Showing Path Coefficient (β) and R^2

Source: Field data (2021)

Discussion of the Results

A statistically significant relationship was found between the study's three independent variables/constructs, such as compensation, workload and welfare, and the dependent variable, tutors' retention. The significant relationship between compensation and employee retention suggests that the more tutors on the distance programmes in Ghana are satisfied with their compensation, the easier it will be for the public universities to retain them. The results, thus, agrees with the findings of Segbenya and Nyieku (2021) that compensation (extrinsic reward) is a key determinant for workers' decision to accept and stay on a job. From the two-factor theory by Herzberg, compensation as a hygiene factor cannot induce retention. However, the study's findings disagree with the theory and suggest that compensation as a hygiene factor within the job context induces retention among course tutors on the distance education mode in Ghana.

Another indicator of concern is the workload of course tutors and its significant positive relationship with employee retention. The results implies that any percentage increment in tutors' satisfaction with their workload will yield the same percentage increment in employee retention of course tutors in Ghana. Tutors' workload on the distance education mode spanned over teaching, marking, invigilation, and teaching practice supervision (these activities were either similar or entirely different from what these tutors do on weekdays at their formal workplaces). Each of these elements of the workload was remunerated separately; hence, the majority wished they could always be engaged in such activities for feedback and experience, among others, without recourse to their health effects. These expectations or desires were sometimes truncated due to low enrolment/number of students. Thus, there were semesters/times when some tutors could not get a class/student to teach, which affected their working conditions (Deduced from responses on individual items measuring the variable). The possibility of being poached by other competing institutions during semesters without classes to teach thus becomes very high and challenging.

The place of workload in the life of the tutor served as the basis/precursor upon which all other indicators could be meaningful. Thus, the

higher the enrolment of students, the higher the likelihood that existing tutors will be assigned more classes/hours to teach and be engaged in all teaching practice, invigilation and marking of examination scripts. The possibility of high enrolment leads to better working conditions among tutors. However, there must be a limit to safeguard the health of the tutor and ensure quality delivery. The results, thus, disagree with earlier findings of Salau, et al. (2018) that the workload of tutors had no statistically significant relationship with gender, rank and tenure.

The last independent variable of concern was tutors' welfare having a statistically significant relationship with employee retention, suggesting that the University of Education, Winneba (UEW) and University of Cape Coast (UCC) can best retain their course tutors by paying attention to and investing in the welfare of course tutors. Thus, the results disagree with the findings of Jawabri (2017), who found that tutors' welfare had no statistically significant relationship with gender, rank, and tenure.

Conclusion

The study examined the relationship between working conditions and retention of course tutors facilitating distance education programmes in Ghana. It can be concluded that all the three independent variables, representing elements of working conditions, such as workload, welfare and compensation, had a positive and significant relationship with course tutors' retention on the distance education programmes in Ghana.

The above conclusion demands that the management of the institutions under study should take specific actions towards the retention of their course tutors. Therefore, it is recommended that management of the University of Education, Winneba and the University of Cape Coast should officially engage course tutors in enrolment drive, which should be tied to compensation (commission) and/or additional classes/course. High enrolment/students number leads to the course tutors' opportunity to be assigned more classes or courses that translate to better working conditions through their workload. Course tutors are scattered all over the country and serve as the first point of contact for prospective applicants and guardians or parents. They stand a chance

to convince many applicants to enrol in distance education programmes if they are officially engaged and rewarded.

Management of these institutions should provide a welfare package for their tutors in distance education programmes that include medical support, end of year benefits, a package for the tutor who dies in service, a funeral page for the death of parents or children and the spouse of a tutor. The welfare of tutors gives some comfort and a sound mind to the tutor to concentrate on teaching. Thus, the possibility of retaining competent tutors in distance education programmes by the public universities is equally tied to their betterment in terms of welfare.

The University of Education, Winneba and the University of Cape Coast should introduce an attractive compensation package for their tutors in the distance education mode. Compensation is essential since the two universities remain the market leaders in distance education in Ghana. An attractive compensation is needed to attract and retain competent tutors to avoid being poached by other market entrants or competitors.

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Effect Of Job-Related Stress on Employee Performance at Selected Banks in Ghana

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Abstract

This study investigated the effect of job-related stress on employee performance in the banking sector. The study adopted a cross-sectional study design. The population of the study was 320 employees from 7 selected banks with a sample size of 160 respondents. Simple random sampling was used in selecting the respondents for the study. The data was solicited using closed-ended questionnaires. Descriptive statistics were used to find out the level of stress and work-related stressors of participants. An inferential statistic of regression was used to analyse the effect of job stress on performance. The study found a high level of job-related stress among employees in the banking sector. Job stress was found to have a significant effect on employee performance at the selected banks. The study also established that stress management on the part of the management of the selected banks was low, which contributed to the high level of the negative effect of job-related stress on employee performance at the banks. It was recommended that the management of the banks should conduct a stress audit to identify the level of stress of its staff and put measures to alleviate or curtail them.

Keywords: *Job Stress, Employee Performance, Banking*

Introduction

The competitive nature of the work environment globally has drastically increased the level of pressure on every individual, especially bank employees to meet the strategic goals and objectives of their firms (Devi & Sharma, 2013). Stress has become a universal element of most working environments globally. Stress is a global employment issue with several implications for employees, organisations, and economies. Stress relates to the adaptive response to a situation that is seen as challenging or threatening to a person's wellbeing (McShane & Glinow, 2008). Omolara (2008) described stress as an adverse psychological, emotional and physical reaction that an individual experiences due to the inability to cope with situations in the environment.

According to Dwamena (2012), the demands on employees has increased considerably with accompanying stress, especially among workers found in the banking sector. The reasons for the intense stress level among banks' staff could be attributed to the economic environment and competition compelling banks and other firms to restructure, downsize, lay off employees or merge to efficiently and effectively utilise their resources to maintain their positions. Also, the expectations of employers are intensifying and increasing the responsibility of employees. The banking sector is one of the most demanding fields as employees are under constant employment demands and stress due to the complex nature of their work schedules (Michie, 2002). Stress can have a negative impact on work performance in terms of absenteeism, inability to meet targets, low productivity among workers (Mesko, Erenda, Videmsek, Karpljuk, Stihec, & Roblek, 2013). For example, the International Labour Organization (ILO) reports that inefficiency resulting from role-related stress can cost up to 10% of a country's gross domestic product (GDP) (Midgley, 2006).

Many banks in Ghana struggle to meet the minimum capital requirement of the recapitalisation programme by the Central Bank of Ghana (BoG) to improve the stability in the banking industry while growing the industry (Ofosu-Adarkwa, 2018). To survive and remain in business, the demands have mounted much pressure on employees of these banks. As a result, Ofosu-Adarkwa opined those employees have to work beyond their recommended working hours to maintain their jobs. The overtime working among staff of these banks thus, pose a very unbearable stress on employees in the banking industry. A great number of employees are suffering from burnout and stress which undermine the achievement of goals and objectives for both employees and firms (Dartey-Baah & Ampofo, 2015).

Competition leading to policy changes, the entrance of new private banks into the industry, and the use of new technologies have not only enhanced the

performance of banks but rather contributed to increased work-related stress among workers in the banking industry. The costs of job-related stress have been found to be very high in the financial sector (Ofosu-Adarkwa, 2018). Meanwhile, the performance of the banks and ability to meet their targets largely depends on the staff or their human resource.

The banking situation in Greater Accra Metropolis in Ghana (study area) could pose several stress-related challenges to workers because the metropolis housed the headquarters of all banks which increases work demand among workers at the head office. Additionally, the metropolis is also characterised by high level of human and vehicular traffic which does not only give business opportunities for the banks but also demand that workers leave their homes early and spend longer time in traffic to and from work. All these have the potential to serve as stressors among bank workers in the metropolis and could influence the performance of the individual workers and the respective banks. The challenge is that a high level of stress accumulation has the propensity of causing physiological illnesses, increased arousal of restlessness or uneasiness among bank workers in the metropolis (Adriaenssens *et al.*, 2011). The possibility of these bank workers recording higher rates of absenteeism and sick leave, reduced performance at work (Adriaenssens *et al.*, 2011), more work-home conflicts leading to high turnover is also possible (Yuwanich, Sandmark & Akhavan, 2017). Meanwhile, it is not clear how the work performance of bank workers in the Greater Accra Metropolis is being influenced by work-related stress.

Earlier studies on work-related stress among workers in Ghana by Yeboah, Ansong, Antwi, Yiranbon, Anyan and Gyebil (2014); Quaicoe (2018); Kokoroko and Sanda (2019) and Kploanyi, Dwomoh and Dzodzomenyo (2020) have all been limited to the health sector. Other related studies in the banking sector by Nordzro (2017) was also limited to UT bank workers in the Western Region of Ghana. The study of Yeboah-Kordee, Amponsah-Tawiah, Adu and Ashie (2018) was also limited to only four banks in Ghana. This study, therefore, fill the gap of examining the effect of work-related stress on performance among bank employees in Accra (a densely populated and traffic-congested city) by considering seven banks in the metropolis is more urgent than ever. This study will therefore contribute to the literature on stress and employee performance by unearthing the stress level among bank employees, what causes stress among bank workers, and how workers have been coping or managing the job-related stress in their workplaces. The three objectives guiding the study were to:

1. Determine the level of job-related stress among bank employees.
2. Ascertain the regularity of job-related stressors among employees of the selected banks

3. Assess the effect of job-related stress on employee performance at the selected banks.
4. Examine the significant differences in stress levels and job stressors in terms of marital status and gender of bank workers.

The remaining section looks at the theoretical and conceptual discussion on job-related stress, methodology, results and discussion, conclusion and recommendations.

Literature Review

Theoretical and conceptual perspective on job-related stress and performance

The study is underpinned by two theories. These are the interactional theory and the transactional theory. The interactional theory proposes that work-related stress results from the interaction between several psychological job demands relating to workload (Karasek, 1979). According to Beehr et al. (2001), interactional theory relates to envisaging results of psychological tension, and employees who encounter high demands associated with low control are more likely to experience work-related psychological distress and strain. The perceived job demands and decision autonomy, in theory, have been acknowledged as being the key factors in determining the effects and outcome of work on employees' health (Hatsu, 2020). The implication of this theory for this study is that bank workers who have little or no control over job-related stress experienced with their jobs stand a chance to suffer more psychological distress and strain and might lead to low performance on the job. The limitation of this theory is that it does not provide for the role of environmental factors on the effect of stress on employee performance. Hence the transactional theory is reviewed next.

According to Lazarus and Folkman (1984), transactional theory, the second theory of the study, suggests that stress results from the transaction between an individual and their environment which has a toll on their resources, thus threatening their wellbeing. Similarly, a recent version of the transactional theory developed by Lazarus pointed out that the appraisal of the transaction offers a causal pathway to show the characteristics underpinning physiological and psychological components that define the overall process and experience of stress (Lazarus, Cohen-Charash, Payne, & Cooper, 2001). In this regard, any aspect of the environment can be perceived by the appraising individual as a stressor. This, however, depicts that the stressors only exert their effects through how an individual perceives and evaluates them (Ganster & Rosen, 2013). Cox (1993) thus posited that the transactional theory represented the sources of the

stressors, the perception of those stressors in relation to the individual's ability to cope, the psychological and physiological changes associated with the recognition of stress. This shows that workplace stress is thus associated with exposure to particular workplace situations and an individual's difficulty in coping.

Causes of Stress

Several researchers have attempted to identify the variables that function as stressors (Berry, 1998). Joshy (2014) on a study conducted in India and Ireland to analyse the causes of stress and its impact on absenteeism among employees revealed that factors intrinsic to the job, organisational structure and climate and role of the employee in the organisation are the major causes of stress among the employees in both countries. Similarly, Schuler (1982) identified job qualities, relationships, organisational structure, physical qualities, career development, change and role as the main sources of work stressors.

Parker and DeCotiis (1983) also proposed six specific causes of work stress: job characteristics, organisational structure, climate and information flow, role, relationship, career development, and external commitments and responsibilities. Studies have shown that the workplace is a key source of both demands and pressures, causing stress, structural and social resources to counteract stress. Stress can also be influenced by environmental, organisational and individual variables (Matteson & Ivancevich, 1999). The job itself including duties, responsibilities, heavy workload, variations in workload, role ambiguity and role conflict can be a source of stress for employees (McGowan, 2001; Michie & Williams, 2003; and Robinson et al., 2003). The working environment such as resources shortage, problems with colleagues and poor management style can be stressful (Flanagan, 2006; Isikhan et al., 2004; and Steinhardt et al., 2003). Also, organisational policies such as long working hours, inadequate training, job security, inadequate salary and lack of career prospects can be stressful (McCann et al., 2009; Mosadeghrad, 2013; and Schmitz et al., 2000).

Michie (2002) has the opinion that managers who are critical, demanding and unsupportive create stress, whereas a positive social dimension of work and good teamwork reduces it. He later emphasised that employee responsibility and workload create severe stress among workers and managers. The individual unable to cope with loads of work will lead to several physical and psychological issues among them.

McShane and Glinow (2008) agreed with the other researchers indicating that there are numerous stressors in organisational settings and other life activities but identified and grouped four main types of work-related stressors.

These are interpersonal, role-related, task control and organisational and physical environment stressors.

Stress Response Stages

According to Segen (2002), stress response is a predictable physiological response that occurs in humans as a result of injury, surgery, shock ischemia or sepsis. The three main stages of stress response stages are alarm reaction, resistance and exhaustion. Alarm reaction relates to the stage where the body at this stage of the syndrome makes an immediate reaction to the distress signal or stressor. According to Higuera (2017), individuals tend to be taken off guard when exposed to a stressor. This stage is also known as the flight/fight stage or hyperarousal stage. It is called flight/fight because it is a physiological reaction that occurs in response to a perceived harmful event, attack or threat to survival.

The *resistance stage* is after the body has identified and decided to fight the stressor (Higuera, 2017). During this stage, the body begins to repair itself by maintaining the level of alertness to the stressor with the blood pressure normalising. Higuera further explained that a situation where the stress is overcome, the body repairs itself until the hormonal level, heart rate and blood pressure is stabilised. However, if the situation is not resolved, the body is kept on high alert, thus secreting the stress hormones and increasing the blood pressure. Signs of the resistance stage include frustration, poor concentration and irritability.

The *exhaustion stage* is when the resistance stage prolongs without pauses to offset the stress. According to Higuera (2017), an individual's physical, emotional and mental resources are drained when the struggle with stress has been prolonged to the extent of the body having no strength to fight the stressor. Further explanation is that the physical effort at this stage leads to stress-related illness like chronic high blood pressure, cancer due to the weak immune system, depression, stroke, heart disease and high risk of infection. Signs of exhaustion include anxiety, burnout, decreased tolerance to stress, depression and fatigue.

Types of Stress

According to the American Psychological Association, there are three types of stress with each having its unique characteristics, duration, symptoms and treatment approach. According to Sincero (2012), acute stress is the commonest and most identifiable type of stress. It occurs as a result of our bodies' immediate response to any demand that is challenging. Sincero further explained that the reaction triggers the fight or flight response, but it is not

always negative. It is healthy as these stressful encounters provide the body and brain practice in developing the best and appropriate response to future stressful situations. Severe acute stresses that do occur can result in mental health problems such as post-traumatic stress disorder. With this kind of stress, an individual is able to identify why the body is stressed, and it ceases when the body calms down.

The frequent occurrence of acute stress is termed episodic acute stress. This mostly happens to people who always seem to be having a crisis. According to Sincero (2012), such people are often out of control irritable, anxious, short-tempered and people who are always pessimistic and tend to use the negative side of issues. Individuals with episodic acute stress tend to have negative health effects persistently. It is quite difficult for individuals with this type of stress to change their lifestyle and turn to accept stress to be part of their life.

According to Sincero (2012), this type of stress occurs as a result of the increment of acute stress or long-lasting period of stress. This stress is constant and does not go away and as such, very detrimental to the health. Chronic stress contributes to several health risks or serious diseases such as strokes, cancer, heart disease, lung disease, migraine, accidents, and suicide. Extreme chronic stress leads to post-traumatic stress. Sincero describes post-traumatic stress disorder to occur when the individual's psychological and physical symptoms are triggered as a result of the trauma not ceasing and constantly having flashbacks for signs of tension, anger, irritability.

Empirical Review on the Effect of Stress on Employee Performance

Ahmed and Ramzan (2013) examined the relationship between job stress and performance in the bank workers in Pakistan with the aim of determining the impact of job stress on job performance. The study used the quantitative approach and a sample of 144 respondents. The data collection instrument was a questionnaire, and the data analytical tools were standard multiple regression and Pearson correlation coefficient. The study found a statistically significant negative correlation between job stress and job performances, suggesting that job stress significantly reduces the performance of an individual. Therefore, the study recommended that organisations employ a sustainable healthy, cooperative, and friendly environment for employees to boost employee performance.

Karunanithy and Ponnampalam (2013) also conducted a study to understand the level and relationship between job stress and job performance of commercial bank PLC employees in the Eastern Province of Sri Lanka. The study employed the quantitative approach and sampled 50 respondents. The data

for the study was collected with the use of a questionnaire and data collected was analysed with the help of descriptive, correlation and regression analysis. The result showed that there was a significant negative correlation between stress and employee performance. The study further found that the impact of organisational stress was higher than job-related stress and individual stress. Therefore, it was recommended that organisations create a supportive organisational climate and stress reduction workshops for workers in the banking sector.

Awadh, Gichinga and Ahmed (2015) also conducted similar research on the effects of workplace stress on employee performance in the county governments in Kenya: A case study of Kilifi County Government. The study aimed to establish the effect of job demand, job security, and time pressure on performance. The descriptive survey design was adopted, and a questionnaire was the data collection instrument. The study showed that job demand, job security and time pressure had a positive correlation with performance. Awadh, Gichinga and Ahmed (2015) recommended that the Kenya government organises burnout sessions for its employees with time to share with families.

The above empirical review has shown that stress indeed has an impact on employee performance. The quantitative approach was a common approach for studying stress and performance among the empirical studies reviewed. For this reason, both descriptive statistics and inferential statistics such as correlation and multiple standard regression were common analytical tools used for data analysis by the studies reviewed. Thus, the outcome of this empirical review has a lesson for this study and greatly influences the methodology adopted for this study which is the focus of the next section.

Research Methods

This study used a cross-sectional descriptive research design to investigate the effect of stress on employees' performance in the banking environment. The study was conducted in the Accra Metropolis of the Greater Accra Region, Ghana's capital city. It is the centre for major commercial, economic and social activities in the country and serves as the administrative, economic and educational centre of Ghana. There are over 23 financial institutions within the Accra Metropolis, including commercial banks (both private and public banks), rural banks, savings and loans, credit unions and fund management.

The simple random sampling technique was used to administer the research instrument to a sample of 175 respondents drawn using the sample size determination table by Krejcie and Morgan (Segbenya & Osei, 2019) from a study population of 320 workers in the seven selected banks within the Accra

metropolis. These banks were United Bank for Africa (UBA) (62), Consolidated Bank Ghana (CBG) (36), Fidelity Bank (53), Cal Bank (33), First Atlantic Bank (41), Barclays Bank (43) and Ecobank (52). Data collection instrument was a self-administered questionnaire that focused on demographic and work characteristics (age, gender, marital status, monthly income, type of bank, work position), stressors experienced by participants in their work environment, the level of perceived stress and job performance.

The Job-related tension index (JRTI) developed by Kahn et al. (1964) was used to measure *job-related stress levels*. This questionnaire contains 17 items which are scored on a five-point Likert scale from 1 = strongly disagree to 5= strongly agree. The responses are summed up into an index score where higher scores indicate perceived higher job-related stress. The assessment of *job stressors, as well as the physiological, physical response to stress*, was conducted using the Brief Job Stress Questionnaire (BJSQ) (Shimomitsu et al., 2000). This questionnaire consists of 57 items, 17 of which are used to assess job stressors (quantitative job demands, qualitative job demands, and control), 18 items that assess *psychological stress response* including feelings of fatigue, anxiety, depression and 11 items which assess *physiological response to stress*. The remaining 11 items measure *social support at the workplace*.

Job performance was assessed using a 16-item self-appraisal scale developed by Kakkos and Trivellas (2011). It assesses individual job performance in the areas of quality, quantity, productivity, individual goal achievement, working time available, decision-making, suggestions for improvement and overall ability to execute a job) on a 7-point scale ranging from 1=very low to 7=very high performance. The reliability of the various sections of the questionnaire or variables of the study can be seen in Table 1.

Table:1 Reliability Statistics for a Pre-Test of the Questionnaire for Data Collection

Reliability Statistics	Cronbach's Alpha	No. of Items
All Variables	0.944	59
Workplace stress level	0.883	15
Job Stressor	0.704	14
Performance level	0.757	10
Effect of Stress on Performance	0.890	10
Stress Management Strategies	0.961	10

Source: Field survey (2019)

Ethical considerations were adhered to throughout the study. The purpose of the study was explained to the respondents in order to have a clear understanding of the study and made them aware that participation was voluntary. Similarly, the questionnaire was designed to make answering easy for the respondents. Also, the information of all respondents was treated with high confidentiality.

In terms of analysis, descriptive analysis was used to describe participants' characteristics as well as levels of stress. These were recorded as means and standard deviations. Regression analysis, however, was adopted to assess the effect of job stress on employee performance.

Results and Discussion

The first part of this section focuses on the respondents' demographic characteristics such as department, position, gender, age, education, years in the position, marital status, children, and income levels (see Table 2). It can be deduced from Table 2 that the operations department has a higher number of respondents (61.3%). The other departments were marketing (38.1%) and administration (0.6%). Regarding the gender of the respective respondents, the majority (51.9%) of the respondents were females. Also, the majority (80%) of the respondents were within the age bracket of 30-39, suggesting that the banks' employees were mostly youth who have the energy to work.

In terms of the level of education, the majority (76.9 %) of the respondents were degree holders and 1.3% had a diploma certificate. With regards to the tenure of position, the majority (50.6 %) of the respondents had been in their positions for 6-10 years. This shows that most of the employees are experienced workers of the bank who have much knowledge and skills in the positions of tellering, cash officer, customer service officer, funds transfer, branch operations manager, relationship officer, personal banking, system administrator, and compliance officer and digital lead. The respondents' marital status shown in Table 2 shows 35.6 % of the respondents were single, while the majority (64.4%) were married and 68.8% had children suggesting that a greater percentage of the bank employees are married with children.

Table 2: Demographic Characteristics of the Respondents

	Categories	Frequency	Percentage
Departments	Operations	98	61.3
	Marketing	61	38.1
	Administration	1	0.6
	Total	160	100
Gender	Male	77	48.1
	Female	83	51.9
	Total	160	100
Age	20-29	32	20
	30-39	128	80
	40-49	0	0
	50 and above	0	0
	Total	160	100
Educational level	Diploma	2	1.3
	Degree	123	76.9
	Masters	35	21.9
	Total	160	100
Years in position	1-5	78	48.8
	6-10	81	50.6
	11-15	1	0.6
	Total	160	100
Marital status	Married	103	64.4
	Single	57	35.6
	Total	160	100
Availability of Children	Yes	110	68.8
	No	50	31.3
	Total	160	100
Income level	2000-3000	74	46.3
	3001-4000	70	43.8
	Above 4000	16	10
	Total	160	100
Position	Teller	50	31.3
	Cash officer	11	6.9
	Customer service officer	14	8.8
	Funds transfer officer	8	5.0
	Branch operations manager	10	6.3
	Relationship officer	52	32.5
	Marketing officer	2	1.3

Personal banker	5	3.1
System administrator	2	1.3
Compliance officer	4	2.5
Digital lead	2	1.3
Total	160	100

Source: Field survey (2019)

Level of Job-Related Stress among Bank Workers

This section of the study sought to examine the levels of job-related stress among bank employees in the Greater Accra metropolis as captured in the study's objective one. The results in Table 3 shows that only two factors out of fifteen in the table were rated to be very high (because the mean values were above 4.0) in causing stress to bank workers in Ghana. These factors were work and life conflict (“respondents having the feeling that their jobs tend to interfere with their family life”) with the mean value of (M = 4.14; SD = 1.207); and not knowing what opportunities for advancement or promotion exist for workers with a mean value of (M=4.12; SD=0.597).

Table 3: Work Stress Level

SN	Statements	Mean	Std. Dev.
1	Feeling that you are not fully qualified to handle your job	2.74	1.295
2	Thinking that the amount of work you have to do may interfere with how well it gets done	2.79	.440
3	Being unclear on just what the scope and responsibilities of my job are	2.90	1.075
4	The fact that you can't get information needed to carry out your job	3.28	.876
5	Not knowing just what the people you work with expect of you.	3.54	.831
6	Feeling that you may not be liked and accepted by the people you work with.	3.71	.544
7	Feeling unable to influence your immediate supervisor's decisions and actions that affect you	3.74	.492
8	Thinking that you will not be able to satisfy the conflicting demands of various people over you	3.78	.943
9	Feeling that you have too heavy workload, one that you can't possibly finish during an ordinary workday	3.78	.949
10	Feeling that you have too little authority to carry out the responsibilities assigned to you	3.80	.783
11	Feeling that you have to do things on the job that are against your better judgment.	3.84	.521
12	Not knowing what your supervisor thinks of you, how s/he evaluates your performance	3.90	.375

13	Having to decide things that affect the lives of individuals, people that you know	3.91	.369
14	Not knowing what opportunities for advancement or promotion exist for you	4.12	.597
15	Feeling that your job tends to interfere with your family life	4.14	1.207
Overall mean		3.601	1.104

Source: Field survey (2019)

Scale: 2.9 and below=low, 3.0 -3.9=high and 4.0 and above= very high

Ten out of the remaining thirteen factors in Table 3 were also rated to have been responsible for a high level of stress among bank workers. Key among these ten factors were- not knowing how supervisors evaluated subordinates (M=3.90, SD=.375); doing things on the job against one's judgement (M=3.84; SD=0.521); too little to carry out assigned responsibility ((M=3.80; SD=0.783), and too much/heavy workload (M=3.78; SD=0.949) among others. This explains why the overall mean was (M=3.601). Three factors in the Table 3 have also been rated to have caused low level of stress among bank workers in Ghana because their mean values were 2.9 and below. These were- unclear scope of work (M=2.90, SD=1.075); workload reduces work output (M=2.79, SD=.440); and feeling of not qualified for the job with the least rating (M=2.74, SD=1.295).

The Regularity of Job-related Stressors or Factors that Cause Related Job Stress

This section presents the regularity of factors that cause job-related stress in the working life of the respondents as captured in objective two of the study, and the results can be seen in Table 5. The majority of the respondents indicated that the ability to work at one's own pace (48.1%) and the inability of his/her department to get along well with other departments (60.6%) were factors that never served as a source of job-related stress to them. In terms of factors that stress employees but not often, the majority of the respondents selected physical requirements of their jobs (43.8%); knowledge and skills were rarely used at work (64.4%) and friendliness at the workplace (77.5%). The most frequent and almost always job-related stressors among employees at the selected banks were an extremely large amount of work (60%), the need to complete a task on time (60.6%); working so hard (75.0%), paying careful attention (100%); levels of difficulties in the job, knowledge and technical skills requirements of the job (78.8%); continually thinking about the job (63.1%) and lastly differences in opinions concerning activities in the department (77.5%).

Table 4: Job Stressors

Statements	Not at all %	Once a while %	Not often %	Frequently if not always %	Total %
I have an extremely large amount of work to do	0 (0%)	6 (3.8%)	58 (36.3%)	96 (60%)	160(100%)
I can't complete work in the required time	0 (0%)	36 (22.5%)	27 (16.9%)	97 (60.6%)	160(100%)
I have to work as hard as I can	0 (0%)	2 (1.3%)	38 (23.8%)	120 (75.0%)	160(100%)
I have to pay very careful attention	0 (0%)	0 (0%)	0 (0%)	160(100%)	160(100%)
My job is difficult in that it requires a high level of knowledge and technical skill	31(19.4%)	1(0.6%)	2(1.3%)	126(78.8%)	160(100%)
I need to be constantly thinking about work throughout the working day	1(0.6%)	0 (0%)	58(36.3%)	101(63.1%)	160(100%)
My job requires a lot of physical work	37(23.1)	51 (31.9)	70 (43.8)	2 (1.3%)	160(100%)
I can work at my own pace	77 (48.1%)	34 (21.3%)	45 (28.1%)	4 (2.5%)	160(100%)
My knowledge and skills are rarely used at work	3 (1.9%)	3 (1.9%)	103(64.4%)	51 (31.9%)	160(100%)
There are differences of opinion within my department	1 (0.6%)	30 (18.8%)	5 (3.1%)	124 (77.5%)	160(100%)
My department does not get along well with other departments	97 (60.6%)	30 (18.8%)	2 (1.3%)	31 (19.4%)	160(100%)
The atmosphere in my workplace is friendly	3 (1.9%)	1 (0.6%)	124 (77.5%)	32 (20.0%)	160(100%)
This job suits me well	31 (19.4%)	2 (1.3%)	81(50.6%)	46(28.8%)	160(100%)
My job is worth doing	0 (0%)	49 (30.6%)	73 (45.6%)	38 (23.8%)	160(100%)

Source: Field survey (2019)

Effect of Stress on Performance

Table 4 indicates the effect of job stress variables on employee performance. It provides information on whether a variation in the dependent variable can be explained by the regression model. Table 5 presents a summary of the linear regression to assess the effect of job stress on employee performance. Regarding the beta values, job stressors have the least beta value of 0.124 at an insignificant level of 0.056 with a t-value of 1.924. It is evidenced that the stress level of employees has a significant greater impact on performance with a beta coefficient of 0.592, t- value of 9.198 and significant value of 0.000.

Table 5: Regression Model on the Effect of Job Stress on Employee Performance

Model	Standardised Coefficients	t	Sig.	R Square	Adjusted R Square	Std. Error of Estimate	F the change	Collinearity Statistics	Tolerance	VIF
	Beta									
(Constant)		1.525	.129							
1 Job stressors	.124	1.924	.056					.906		1.103
Stress level	.592	9.198	.000	.411	.403	2.607	54.693	.906		1.103

a. Dependent Variable: performance level

Source: Field survey (2019)

The R-Square shows a value of 0.411, indicating the 41.1% variation in the dependent variable (employee performance) is explained by the independent variable (stress). This means that job stressors and stress levels have contributed a significant figure of 41.1% to employee performance. The remaining 58.9% of the variation in performance is explained by the residual. The adjusted R-square is 0.403, indicating that 1% change in job stress results in a 40.3% change in employee performance.

The significant value of the F-change of 54.693 is 0.000, indicating that variation in the dependent variable can be explained by the linear regression table. Hence the linear relationship does exist between the variables in the model. The multicollinearity is assessed using the Tolerance and Variance Inflated Factor (VIF). The Tolerance values are both more than 0.10, and the VIF are also less than 10. Hence there is no multicollinearity among the variables.

The study went further to examine the mean difference in terms of stress level and job-related stressors based on gender and independent sample t-test results can be seen in Table 6. The finding as indicated by the Sig (2 tailed) under t-test for equality of means revealed that there were no statistically significant differences in scores respectively, for male workers [(M = 53.96, SD = 5.265) and female bank workers (M = 54.04, SD = 5.299); t = (160) = .929] for stress level variable and male workers [(M = 43.62, SD = 2.171) and female bank workers (M = 43.16, SD = 1.947); t = (160) = .154] for job stressors.

Table 6: T-test Results Showing the Difference in Effect of Stress on Gender

	Gender	N	Mean	Std. Dev.	Std. Error	Levene's Test for Equality of Variances		t-test for Equality of Means		
						F	Sig.	t	df	Sig. (2-tailed)
Stress level	Male	77	53.96	5.265	.600	.117	.733	-.090	158	.929

	Female	83	54.04	5.299	.582					
Job stressors	Male	77	43.62	2.171	.247	.813	.369	1.434	158	.154
	Female	83	43.16	1.947	.214					

Source: Field survey (2019)

The t-test results showing the difference in effect of stress on marital status of bank workers can also be seen in Table 7. The finding as indicated by the Sig (2 tailed) under t-test for equality of means revealed that there were no statistically significant differences in scores respectively, for married workers [(M = 53.77, SD = 5.161) and ‘single’ workers (M = 54.42, SD = 5.474); t = (160) = .454] for stress level variable and Married workers [(M = 43.25, SD = 2.042) and ‘single’ workers (M = 43.61, SD = 2.102); t = (160) = .290] for job stressors.

Table 7: T-test Results Showing the Difference in Effect of Stress on Marital Status of Bank Workers

						Levene's Test for Equality of Variances		t-test for Equality of Means		
	Marital Status	N	Mean	Std. Dev.	Std. Error	F	Sig.	t	df	Sig. (2-tailed)
Stress level	Married	103	53.77	5.161	.508					
	Single	57	54.42	5.474	.725	.115	.735	-.751	158	.454
Job stressors	Married	103	43.25	2.042	.201	.989	.322	-1.061	158	.290
	Single	57	43.61	2.102	.278					

Source: Field survey (2019)

Discussion of Results

The study sought to determine the level of job-related stress among bank employees; ascertain the regularity of job-related stressors among employees of the selected banks and assess the effect of job-related stress on employee performance at the selected banks. Thus, the finding that work and life conflict caused a very high level of stress is in line with the interactional theory that that work-related stress results from the interaction between several psychological job demands relating to workload. The results agree with the finding of McShane and Glinow's (2008) view that stress increases when individuals are unable to balance time for both work and family demands. The findings on lack of opportunities for advancement or promotion causes a very high level of stress among bank workers in Ghana agrees with the findings of

Robbins's (2004) assertion that stress increases when an individual is confronted with opportunity constraints.

The findings that majority of the respondents indicated that workload, constant thinking about work all day, unable to meet deadlines and differences of opinions within their departments frequently, if not always, cause job stress agree with the that of McGowan (2001); Michie and Williams (2003); and Robinson et al. (2003), that the job itself, including duties, responsibilities, heavy workload, variations in work load, role ambiguity and role conflict could be sources of stress for employees. The finding on workers' inability to work at their own pace and their department not getting along with other departments agrees with the findings of Michie (2002), that stress is created when managers who are critical and demanding are not supportive. It further supports the findings of McShane and Glinow (2008) that when work schedules are monitored and controlled by another person, it produces stress especially when the individual has no control of time and energy. Some respondents also indicated that some factors do not often cause stress. Thus, the position of transactional theory that any aspect of the environment could be a stressor is, therefore, upheld in this study.

The study demonstrates job stress level overall to be the most statistically significant variable that has an effect on employee performance. This confirms what Blumenthal (2003) posited, that as stress increases so does performance, but argued that stress becomes harmful and counterproductive when it reaches the level of acute discomfort. He, however, indicated that when it reaches an excessive level it becomes harmful, destructive, and detrimental to human wellbeing and performance. Kakkos and Trivellas (2011) also affirmed this notion, stating that the extreme levels of pressure do not assure a high level of performance rather a low-performance level because of negative feelings to excessive stress.

Conclusion

The study was carried out with the aim of identifying the levels of stress, factors that cause stress and assessing the effect of stress on performance from 7 selected banks in the Accra Metropolis. The first objective of the study dealt with identifying the levels of stress. It is evident from the findings that employees in the banking sector experience a high level of job-related stress, interfering with family life, lack of promotion/advancement opportunities, doing things on the job, which are against their better judgement, having too little authority to carry out responsibilities and unable to satisfy conflicting demands of people over them.

The study also revealed that paying careful attention to work issues, heavy workload, unable to meet deadlines, not able to work at their own pace and constantly

thinking about work all day were the factors that cause frequent job stress. The study again found out that the high level of stress affected the performance of the employees. This concludes that employees undergo much stress, indicating multiple stressors which adversely affect them psychologically, emotionally and physically. Management is not much involved in identifying and mitigating the job-related stress of the employees.

The conclusion warrants some necessary actions needed to be considered by the management of the seven banks. It is, therefore, recommended that management of the banks should: Frequently organise stress audit to mitigate the stress level. This will help identify the factors that enable employees to be stressed out. Management should have the understanding that prevention and management of job stress need the involvement of the organisation as a whole. Management also should be aware that the success of stress management is dependent on the support of top management with co-operation from employees. Organising regular health monitoring programmes to identify the highly stressed employees for them to go through the stress management process is also recommended.

The human resource departments of the banks should create a section in their department to cater purposely for the wellbeing of employees. This is to help encourage the channel of communication in dealing with job-related stress. Management should organise a programme that should be clearly planned, effectively monitored and evaluated to ensure the objectives set have been achieved.

Suggestions for Further Study

The study has shown that identification of job stress is relevant in determining the performance level of employees. The study, however, only looked at the effect of job-related stress on employee performance. Therefore, it is recommended that further studies be made to identify what additionally augments stress apart from job-related variables in the banking sector, like the non-work-related factors that cause spillovers.

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Analysis of Socio-Demographics of Necessity-driven Entrepreneurs in Selected Cities in Ghana

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Abstract

The study analysed the dynamics of necessity-driven entrepreneurs, using the sociological approach to start-ups. The paper explored the risk appetite and the entrepreneurial potential of those involved in the street hawking business. Utilising the sequential transformative design, structured interviews were used to collect data from 306 street hawkers in Accra, Kumasi, and Cape Coast. Subsequently, 25 follow-up interviews were conducted, using a structured interview guide. Data were collected over ten months due to the complex nature of the respondents of the study. Descriptive statistics and texts were used to analyse the data. The results indicated that the majority of the respondents had only basic education or no formal education. Furthermore, the respondents were mostly women and young people without formal jobs nor any means of livelihood. The study has implications for policy on education, especially basic and adult education, as several of the respondents barely have basic education. There needs to be a social intervention programme to equip the street hawkers with the right employable skills to help develop their skills and promote the growth of their businesses. The paper also makes a case for nurturing their skills as a means of poverty alleviation.

Keywords: *Socio-demographics, Necessity-driven entrepreneurs, Street hawkers, Ghana*

Introduction

The economic situations in various developing countries create conditions where self-employment and entrepreneurship, especially necessity-driven entrepreneurship, form the bulk of employment (Narita, 2020). As noted by Rosa, Kodithuwakku and Balunywa (2006), researchers from the Global Entrepreneurship Monitor were surprised to observe high rates of entrepreneurial activity in developing countries, compared to most developed countries. Additionally, the conditions for entrepreneurship are far from ideal in several regions where rapidly growing new ventures are the exception, not the expected outcome. There are nations where starting a business becomes the only viable or possible option due to the high rate of unemployment and the non-existent or inadequate social safety networks.

Studies, such as Fairlie and Fossen (2019), show that the decision of individuals to become self-employed is based on different factors, including the availability of opportunities, necessity, social support, and poverty. Sociological theorists (Hagen, 1963; Lehmann, 2010) argue that the lack of paid jobs may drive people to become entrepreneurs. A number of these theorists, including (Hagen, 1963; Hoselitz, 1963), suggest that people who lack jobs or are in search of jobs ('between things') may take on the activity of necessity entrepreneurship. Many entrepreneurs started their ventures because they lacked significant opportunities for paid employment (Amit & Muller, 1995; Danson, Galloway & Sherif, 2020; Ampadu-Ameyaw *et al.*, 2020). Consequently, over the years, different types of entrepreneurs have been identified in the literature (Acs, 2006; Agupusi, 2007) and necessity entrepreneurship is one of such classification.

The concept of "necessity or opportunity entrepreneurship," which categorizes entrepreneurial activities based on entrepreneurs' need to meet current basic physiological needs, has become popular among researchers (Gurtoo & Williams, 2009; Giacomini *et al.*, 2011). Necessity-driven entrepreneurs become self-employed, because of the absence of an employment alternative (Reynolds *et al.*, 2002; Minniti *et al.*, 2006). Opportunity-driven entrepreneurs, on the other hand, start a venture in search of growth, profit, innovation and personal aspirations (Cullen, Johnson & Parboteeah, 2014; Amoros *et al.*, 2019). Such businesses have a high potential for growth (Burke,

Zawwar & Hussels, 2019). However, necessity entrepreneurs are driven by the need to meet the immediate and necessities of life. It is linked to the activities in the informal sector (Gries & Naude, 2011; Amoros *et al.*, 2019). Researchers in developing countries tend to agree that basic entrepreneurial goals (autonomy, opportunity, moderate risk-taking) remain the primary motives for successful business start-ups and growth in developing countries (Frese & De Kruif, 2000). However, in the case of the street hawkers, they are largely influenced by the lack of employment opportunities in societies and not necessarily autonomy or business opportunity (Reynolds *et al.*, 2002). As Serviere (2010) posits, unemployed individuals consider starting a business as it remains the only feasible option. In other words, these individuals engage in such vocations due to the absence of income, lack of job opportunities and limited government support (Sarpong & Nabubie, 2015).

The challenges confronting Sub-Saharan African countries include illiteracy, poverty, hunger, migration, growing unemployed youth, lack of jobs and urbanization (United Nations Conference on Trade and Development, 2018; International Monetary Fund, 2018; Aluko, 2019). The result is that several unemployed citizens engage in menial jobs, including hawking in the streets. The International Labour Organization report on employment in Africa (2020) submitted that the unemployment figures in sub-Saharan Africa stood at 33.5 million in 2019. A total of 12.2 million of the 33.5 million unemployed people were youth. Such individuals are compelled to enter into necessity-driven ventures because of the need to meet mostly their physiological needs, as opined in Maslow (1943) theory of need. The street hawking situation in Ghana follows, to some extent, the reasons explained earlier. They constitute a large portion of the informal economy. A 2017 Department of Social Welfare Report (Annor, 2017) estimated about 300,000 persons were involved in this activity. It is a common phenomenon to observe on streets, street corners and traffic jams, where people engage in petty trading, selling low-value items, as observed in Plate 1 and 2. Street hawkers constitute an endangered workforce and the most exposed vocation in the country due to the conditions under which they operate. In other words, they are exposed to both operational and psychological risks.

These risks include the experience of harassment from tax officers to knock-downs by hit-and-run motorists (Sam, Akansor & Agyemang, 2019). They also face health problems due to the absence of proper restrooms at their points of business. Not only are they a threat to themselves, but they also are a threat to others as they are agents for street congestion and traffic jam. In addition, they are agents for spreading communicable diseases due to poor hygiene practices, including poor handling and storage of the products they sell (Jaishankar & Sujatha, 2016). Attempts by different city authorities, over the years, to stop the activities of street hawkers have proved futile. The main reason is that these hawkers do not have alternative jobs for livelihood (Gillespie, 201). As Adama (2020) submits, street vendors are most often harassed and subjected to violent treatment by law enforcement officers. Despite these dangers, they constitute an easy and convenient shop for their target market, who are mainly drivers and passengers in moving vehicles as well as pedestrians.

Previous studies, including Israt and Adam (2019), have concentrated on the dangers of street hawking activities, but have not analyzed the socio-demographic dynamics of those who participate in this activity. The consequences and the individual level antecedents of such necessity-based business activities have not received much research attention (Kautonen & Palmroos, 2010). Similarly, these studies have focused on how gender, age and other demographics predict entrepreneurial success. They have not focused on street hawkers or necessity-driven entrepreneurs. For example, studies, such as (Adom & Williams, 2012; Koramoah & Abban-Ampiah, 2020) focused on business owners with the formal location of the business in developing countries. Also, Sallah and Caesar (2020) focused on how the availability of intangible assets promote women business, while Appietu, Dankwa and Caesar (2020) focused on microfinance. From these studies, the case of the many necessity-driven entrepreneurs, particularly those in developing countries, who initiate start-ups in anticipation of future employment opportunities in other jobs, still require much attention (Caliendo & Kritikos, 2019). This is because these earlier works, including (Spire & Choplin, 2018; Biney, 2019) focused largely on the problems of street hawking with few (Henderson, 2019; Tan'G & Aminuddin, 2019) highlighting its economic benefits to the society.

However, Biney (2019) stumbled on an age-old problem of access to finance. From these empirical works, it could be realized that extant studies have not looked at the demographic characteristics of people engaged in street hawking. Neither have they linked the operations of these classes of business to entrepreneurship nor analyzed the tendency of such activities to spur entrepreneurial activities in the country.

The focus on sociodemographic characteristics and necessity-driven entrepreneurship are relevant in especially entrepreneurship research, because of its impact on recent policy initiatives by the Ghana government, such as the national youth employment and the national entrepreneurship and innovation programmes which are all aimed at necessity driven entrepreneurship. Moreover, though prior research has indicated that entrepreneurs start their businesses as a result of insufficient opportunities for paid employment in developing countries, few have examined the socio-demographic characteristics of these necessity driven entrepreneurs in the context of street hawking. Understanding the socio-demographics would aid researchers not to concentrate on only the risks/dangers of street hawking, but to focus on how such a vocation can be transformed into sustainable businesses. It would also guide policy formulation in dealing with the dangers involved in this vocation. More importantly, it would aid policymakers to tap into the good side of these activities to help contribute positively to the economic growth of the country.

Based on the aforementioned implications, this study sought to examine the socio-demographic (sex, education, region of origin, marital status, income) of street hawkers and to evaluate their entrepreneurial inclination including their risk appetite as well as understand their motives for engaging in such ventures. This is one of the few studies that analyze the activities of street hawkers within the context of necessity-driven entrepreneurship and makes a case for their entrepreneurial inclination. The study was, therefore, guided by three research questions. First, what are the socio-demographic characteristics (sex, age, marital status, level of education and region of origin) of the street hawkers? Second, what are the motives for entering into such ventures and what is the nature of such businesses? Finally, what are the entrepreneurial inclination of those engaged in such businesses? The result from the research is

expected to better inform policymakers on strategies to employ to help streamline or improve the activities of such businesses.

The rest of the paper is divided into three sections. The second section focuses on the literature review on the nature of the hawking and hawkers' market in Ghana. This is followed by the research methodology for the study. The third and fourth sections examine the results and discussion, and conclusions and recommendations, respectively.

Literature Review

Theoretical Review

The discussion on street hawking activities is situated within the framework of sociological approaches to entrepreneurship and motivational theories. Theorists of the sociological approach to entrepreneurship (Hagen, 1963; Hoselitz, 1963) postulate that people become entrepreneurs because of negative displacements, such as being among the minority and the marginalized. Others are people 'between things,' such as migrants, people in search of jobs; positive pull influences, such as partner, mentor, parent, role model, and positive push factors, such as career path that offers entrepreneurial opportunities. These factors often compel individuals to engage in activities that help to restore them to their positive disposition. One such activity is the decision to take on street hawking, a necessary venture.

Maslow's (1943) seminal work on motivation also provides a basis and the theoretical foundation for explaining why people become necessity entrepreneurs. According to his hierarchy of needs theory, people are motivated by going through a five-step hierarchy of needs. Dencker *et al.* (2021) indicated that Maslow believed that people have the inborn desire to self-actualize, however, to achieve this ultimate goal, some more basic needs such as the need for food, safety, love, and self-esteem must be met. The most basic of Maslow's needs are physiological needs: air, food, water, clothing and shelter. Once physiological needs are satisfied, people tend to become concerned about safety. Likewise, when the safety needs have been met, the need for belongingness follows, which according to Maslow, covers social needs. Esteem needs the next in the hierarchy, denotes the desire to be respected by

peers, feeling important, and being appreciated. Finally, at the highest level of the hierarchy, the need for self-actualization, that is becoming what one can become (Maslow, 1943).

Though, Alderfer (1969) developed a similar needs theory; Existence, Relatedness and Growth (ERG), Maslow's motivation framework is used to conceptualize "necessity entrepreneurship" by describing it as venture creation activities by individuals who seek to fulfil their basic physiological and safety needs (Dencker *et al.*, 2021). Accordingly, street hawkers pursue their businesses out of the need to have access to food, water clothing, and shelter, and also to fulfil their basic security and financial needs.

Conceptual Framework

The concept of entrepreneurship has been defined differently by various writers. Some view entrepreneurship as a process of starting and creating a new venture, whilst others define entrepreneurship as building mindset and skills (Diandra & Azmy, 2020). A synthesis of the definitions from (Cantillon, 1931; Schumpeter, 1934; European Commission, 2003; Diandra & Azmy, 2020) show the definition of entrepreneurship is often based on the limited qualities of the entrepreneur. In this paper, entrepreneurs were defined as persons who seek to create value, through the creation or expansion of economic activity through the identification, exploitation of new products, processes and markets with the expectation of venture growth and survival. Therefore, entrepreneurial activity is an ingenious activity in the quest of offering value, through the creation of or increasing economic activity through the identification and exploitation of opportunities to create sustainable new products, processes or markets (Ahmed & Seymour, 2008).

The concept of necessity and opportunity-driven entrepreneurs originated from the "push-pull" concept (Giacomin *et al.*, 2011; Al Matroushi *et al.*, 2020). Gilad and Levine (1986) described push factors as negative situational factors that compel individuals to go into entrepreneurship and pull factors as positive indicators, which "pull" individuals towards entrepreneurship. Individuals go into entrepreneurship due to feelings of dissatisfaction and are pulled into it because they expect a monetary or non-monetary reward (Amit & Muller, 1995; Uhlaner & Thurik, 2007). In other

cases, “push” entrepreneurs are described as individuals who are not only dissatisfied but lack any other opportunities, for example, because of unemployment or being pressured into taking over a family business (Dawson, 2012). Pull factors drive opportunity entrepreneurs, while push factors influence necessity entrepreneurs (Bhola, *et al.*, 2006; Meyer & Hamilton, 2020). Likewise, Block *et al.* (2015), also indicated that the concepts of opportunity-driven and necessity driven entrepreneurship were identified by the Global Entrepreneurship Monitor (GEM) in 2001. The difference between the two types of entrepreneurship is in the motivation of the entrepreneurs who start the venture. They argued that opportunity entrepreneurship is viewed as pursuing opportunities to start a business, while necessity entrepreneurship involves starting a business based on a need (Block *et al.*, 2015). Other researchers have criticized the vague distinction between necessity and opportunity entrepreneurs (Giacomin *et al.*, 2011).

Extant literature shows that various conceptual frameworks have been developed to explain the factors that drive the decision to engage in entrepreneurial activity (Chakraborty, 2019). A stream of thought that followed distinguished between entrepreneurs driven by economic need and those motivated by a desire for self-realization. The terms “necessity” and “opportunity” entrepreneurship can be ambiguous (Dawson & Henley, 2012). Different situations may necessitate the starting of a venture. For example, if an individual lacks autonomy in his/her work, the need for independence may create the necessary condition for self-employment (Hughes, 2003; Appiah-Nimo, *et al.*, 2019; Fairlie & Fossen, 2019). This situation may apply to people of different age groups and gender.

Furthermore, entrepreneurship in the informal sector might be rather an opportunity than necessity driven (Banerjee & Duflo, 2007; Cullen, Johnson & Parboteeah, 2014; Amorós *et al.*, 2019). However, this is not the case for Ghana, where 13.7% of youths (people between the ages of 15-35 years)¹ and graduates are unemployed (International Labour Organization, 2019; Ampadu-Ameyaw *et al.*, 2020). This group would certainly include the street hawkers and others engaged in necessity-driven activities. This is because such individuals might have chosen voluntarily to become self-employed informal

¹ The National Youth Policy of Ghana (2010) defines youth as people between the ages of 15 to 35 years.

street vendors, because of the flexibility and possibility of growth in street commerce (Cross, 2000). For example, a study carried out in Latin American countries by Maloney (2014) revealed that most of the respondents, who were entrepreneurs, in the study preferred to work in the informal sector. Similarly, Snyder (2004) found the main reasons for operating in the informal sector to include limitations in the formal sector. Williams (2009) concluded necessity and opportunities are the reasons why people operate in the informal sector in Russia, Ukraine and England.

Adom and Williams (2012) found that, for 65% of the respondents, the principal reason for starting a business was necessity based. Furthermore, it was not unusual that necessity-driven entrepreneurs shifted towards being opportunity-driven. Desai (2009) and Aluko (2019) submit that necessity entrepreneurship is closely related to informal entrepreneurship. The size of the informal sector in developing countries, therefore, explains the high rates of necessity entrepreneurship. However, this does not always apply, since a study showed that Indian informal entrepreneurs are rather opportunity-driven (Gurtoo & Williams, 2009). Generally, the rates of necessity entrepreneurship in a country are negatively related to income and level of social security (Minniti *et al.*, 2006). Low-income countries are usually countries with the highest rates of necessity entrepreneurship (Reynolds *et al.*, 2001; Acs *et al.*, 2005). One explanation is the high rates of unemployment in those countries (Minniti *et al.*, 2006).

The success of necessity entrepreneurs on a micro-level is still a subject for empirical investigation. Necessity entrepreneurs are less successful than opportunity entrepreneurs (Vivarelli, 2004). This is in line with the finding that necessity entrepreneurs have no intentions of growth and innovation (Hessels, 2008). However, Poschke (2013) found in his cross-country analysis that necessity businesses, except for young firms, have a similar survival rate as other businesses. Reynolds *et al.* (2002) showed that necessity entrepreneurs are almost as successful as opportunity entrepreneurs. Joon (2018) indicated that, with time, a necessity entrepreneur can develop core entrepreneurial competencies. Similarly, Cirera and Qasim (2014) suggested necessity entrepreneurs could graduate to opportunity entrepreneurs. Aidis *et al.* (2005) further stated that the concept of necessity or opportunity entrepreneurship is

too static, and necessity entrepreneurs might become more opportunity-driven over time, mainly because of the individual's learning capacity. Joona (2018) submits entrepreneurs could transition from necessity- to opportunity-driven entrepreneurship.

There seems to be agreement on the qualities of necessity entrepreneurs. Generally, they have a low education level (Bhola, 2006; Poschke, 2013). Furthermore, women are more likely to be necessity driven when starting a business than men (Acs *et al.*, 2005). As Aidis *et al.* (2005) submit, men tend to be independent and tend to have more opportunities than women. In most economies, including Sub-Saharan African (SSA) countries, men tend to own and control more resources than women (Bapuji, Ertug & Shaw, 2020). Studies, such as IMF (2017) and Hilson, Hilson and Maconachie (2018), indicate that one-third of new entrepreneurs in SSA emanate from necessity, using the informal sector as a safety net. Furthermore, such businesses are more in countries where women have fewer possibilities and get less support to participate in the economy and the labour market (Minniti *et al.*, 2006). A 2016 Ghana Labour Force Survey Report revealed that females were more likely to be unemployed than their male counterparts (Ghana Statistical Service, 2016). Moreover, necessity entrepreneurs have smaller businesses and expect their firms to grow less than opportunity entrepreneurs (Poschke, 2013). This is in line with the finding that necessity entrepreneurs are more afraid of failing than opportunity entrepreneurs (Bhola, 2006), since their business is their only, and last, resort.

A major feature of street hawking is the potential threat they are deemed to pose to society, especially when it comes to the sale of food and drinks (Jaishankar & Sujatha, 2016). Cortese *et al.* (2016) found that 76% of the street foods sold were made at home, with no external oversight; 12% of the vendors did not use ice when transporting perishable foods, and 33% never took the required food-handling course. A further 95% did not wash hands between food and money transactions and restroom breaks while selling on the street. Mensah *et al.* (2002) concluded that street foods can be sources of enteropathogenesis. Amid a pandemic like COVID-19, one can imagine the health risks such activities could pose to those who patronize the products from these street vendors. These issues raise the question of regulations of activities of such

businesses. In Ghana, the Food and Drugs Authority (FDA) is responsible for enforcing regulations regarding drinks, foods and drugs.

Street hawking is a phenomenon in Sub-Saharan countries as these necessity entrepreneurs are present in most of these countries. A 2017 Department of Social Welfare Report (Annor, 2017) shows that there are about 300,000 persons who currently live and work on the streets of Ghana. It is much more of a survival strategy for the rural and urban poor. Hawking is the sale of low-value items or convenience products on the street. In Ghana, just like in some other African countries, this is done in pedestrian walkways, traffic or places with heavy vehicular traffic (Mitullah, 2003). It is also common at bus stops or terminals. They normally do not have permanent shops (National Policy on Urban Street Vendors, 2004; Sam, Akansor & Agyemang, 2019).

An observation from the various points of sales by street hawkers indicates people between the ages of 13 and 25 years (Biney, 2019). This implies that a number of these vendors may have dropped out of school or never attended school at all (Mitullah, 2003). It is common to find women carrying children at their back engaged in this vocation in adverse weather conditions. In most of these areas, more women than men are often seen (Akuoko, Ofori-Dua & Forkuo, 2013), including pregnant and nursing mothers. Amegah and Jaakkola (2014) found that pregnant women on the streets are often exposed to traffic-related air pollution that could affect the growth and development of their fetuses.

Street hawkers operate a convenience shop in motion, patronized mainly by drivers and passengers in moving vehicles and other commuters. The practice is common in the regional capitals and some towns across the country. They carry on their heads or hold in hands all sorts of products, from food, drinks, medicine, candies to clothing and electrical appliances as well as dog chains. Most of the items are of low value, an indication that they may not earn much by way of daily sales (Steel, 2012). The dangers of the vocation have often compelled city authorities to form a task force to forcefully eject street vendors from their respective points of the business (Forkuor, Akuoko & Yeboah 2017). There are currently no national laws or policies on street hawking in Ghana. Meanwhile, there have been deeper concerns by health and highway authorities about the risk they pose to those who consume food, drink,

medicine and similar items purchased from these street vendors. It is common to find the items they sell exposed to the hot sun and the dusty air. They are often blamed for the poor sanitation in the cities and towns. People have questioned their hygiene practices while they are in the street, which tends to affect their health (Skinner, 2011).

Similarly, compared to other places, like Mumbai, as found in Kumari (2015), street hawkers in Ghana are confronted with challenges, such as forced eviction, bribe payment, lack of facilities, including toilet and lighting, and lack of social security. Another issue is that they have often been involved in fatal accidents that often lead to their death. Sometimes, in their attempt to reach a passenger in one moving vehicle, they are hit by another vehicle. Despite these health and safety risks, these vendors still pursue this business. Just like any other business, these vendors face other business risks, such as marketing, strategic, legal, physical and management risks (de Araújo Lima, Crema & Verbano, 2020). Treschevsky *et al.* (2020) document a lack of sales or markets as risks small businesses face. Yet, they continue in this business, because it remains a reliable source of employment for many as a source of income and livelihood. It is also regarded by some as a source of training for people who pursue a career in salesmanship and distributorship.

Research Methods

Utilizing a mixed-methods approach with an emphasis on a quantitative approach, the study examined the socio-demographics of street hawkers (necessity entrepreneurs) in selected cities (Accra, Kumasi and Cape Coast) in Ghana, using a sequential transformative design (Ishtiaq, 2019; Neupane, 2019). This design helps study elements in natural settings and provide the least control over variables. It permits the use of qualitative methods, such as interviews, observations and quantitative techniques, such as questionnaires (Mockford, 2008). There was a two-step process. From the theoretical perspective and existing literature, there was the need to conduct a survey, using an interviewer-administered questionnaire (Okamoto *et al.*, 2002). The results from the survey guided the qualitative data collection process, using an interview guide to corroborate the findings from the quantitative survey. The results from both methods were integrated during the interpretation of data.

The cities of Accra, Kumasi and Cape Coast were selected because street hawking is prevalent in these cities compared to other cities in the country. Moreover, the characteristics of such street hawkers are similar (Gillespi, 2017). Furthermore, Accra and Kumasi are the most economically vibrant cities in Ghana. These cities host big financial institutions, companies, multinational corporations, educational institutions, hospitals and airports. Most of the middle to upper class in society work and live in these two cities. In the case of Cape Coast, it is a historic city (the first capital town of Ghana). It hosts a lot of the tourists and historical sites of Ghana. Due to the absence of larger businesses, street hawking is the predominant economic activity (Plate 3).

The target population included street and wayside sellers, including those selling in traffic. Statistics on the total number of people selling in the streets and the wayside is not readily available. However, the Department of Social Welfare Report in 2017 (Annor, 2017) shows there are about 300,000 persons who currently live and work on the streets of Ghana. Due to the unavailability of statistics on the target population for the study, a purposive sampling technique was employed to collect quantitative data from 306 street sellers in three major cities in Ghana, including Accra, Kumasi and Cape Coast (see Figure 1).

The use of purposive sampling in this study is encouraged by Jufrida *et al.* (2019) who have submitted the appropriateness of purposive sampling in such quantitative studies. Besides, 25 key informants were interviewed from Accra (10), Kumasi (10) and Cape Coast (5). The key informants, who were purposively sampled, were made up of hawkers who had been in the business for at least four years. They were mainly people 18+ and were treated as a homogenous group. They were mainly opinion leaders of this informal group.

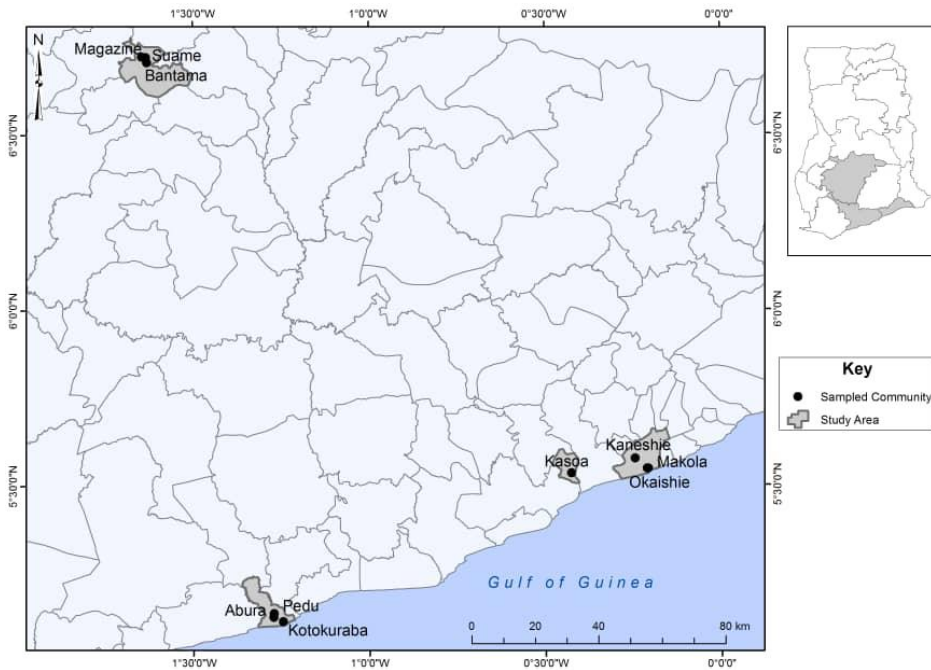


Figure 1: Map of Study sites in Accra, Kumasi and Cape Coast.

The study used primary data sourced, using interviewer-administered questionnaires and interview schedule and interview guide. The questionnaire items focused on the socio-demographic characteristics of the respondents, the nature of the street hawking business, including why people go into such an activity, benefits, dangers, and whether they see their activities as entrepreneurial. The variables were measured on an ordinal scale, asking respondents to rank in most instances. The instrument for the interviewer administration was written in English, but translated into a local language due to the educational background of the respondents. To avoid respondent biases, questions were kept short and simple. Furthermore, difficult concepts were broken down and leading questions were avoided. To ensure validity and reliability, the questionnaire was pre-tested in the Sekondi-Takoradi Metropolis. After the pre-test, some of the questions were revised. The instrument was also given to other experts to read and correct further possible errors.

Data collection spanned over 10 months (December 2019 – September 2020). The first eight months were for quantitative data collection and the remaining two were devoted to qualitative data collection. Data were analyzed, using descriptive statistics, such as frequencies and percentages. The exploratory descriptive methods employed permit the use of descriptive statistics and thematic analysis strategies in understanding the characteristics of the respondents or the phenomenon being studied (Mockford, 2008; Johnson, 2018; Pelzang & Hutchinson, 2018).

Results and Discussion

The first objective of the paper was to analyze the socio-demographic characteristics (sex, age, marital status, level of education and region of origin) of the street hawkers. From the analysis of the descriptive statistics in Table 1, it was observed that street hawking was dominated by women who made up 55% (169) of the respondents. These findings support views in the literature by Acs *et al.* (2005) and Bhola *et al.* (2006), who concluded that necessity entrepreneurship was common amongst women. A plausible reason that could account for such a finding is the issue of female unemployment in these areas. Women have a high potential of being unemployed than men in Ghana, according to a 2016 Ghana Statistical Service report. This is because they have less access to economic resources and may not have had access to education, which is needed for much more professional and decent work that pays more than hawking on the street.

Table 1. Sex of respondents

Sex	Frequency	Percent
Male	137	44.8
Female	169	55.2
Total	306	100.0
Age		
14-24	84	27.5
25-34	123	40.2
35-44	68	22.2
45-54	27	8.8

55-64+	4	1.3
Total	306	100.0
Marital Status		
Married	106	34.6
Divorced	10	3.3
Separated	1	.3
Unmarried	189	61.8
Total	306	100.0

It was also observed that the majority (40%) of these street vendors, as per the sampled data, aged between 25-34 years, as shown in Table 1. Overall, 67.7% fell between the ages of 14-34 years, indicating that the majority of these hawkers are youths. According to Ghana's National Youth Policy (2010), youth is defined as those between 15-35 years. In a country where there are no unemployment benefits, engaging in menial jobs, like street hawking, remains one of the alternative livelihoods. The results support the frequent calls by society for the government to initiate programmes to reduce unemployment, especially among youths and women. Concerning the respondents' marital status, 62% were unmarried. Meanwhile, females dominated the vocation with about 55% of the respondents being women and 45% males. As indicated earlier, women are often disadvantaged in the labour market (Ghana Statistical Service, 2016). The case is precarious where these women possess no or minimal skills. Therefore, they resort to activities, such as street hawking. Furthermore, Table 2 provides the results on the level of education of the respondents. From the results, it was observed that people who are into such ventures have a relatively low educational background. Table 2 shows the educational level of the respondents.

Table 2. Level of education of respondents

Level of Education	Frequency	Percentage
No Formal Education	55	18.0
Went to School but No Education	101	33.0
Left School with No Certificate	36	11.8
Went to University	1	.3
Junior High School (JHS)	112	36.6
Senior High School (SHS)	1	.3
Total	306	100.0

Overall, 63% of the respondents either did not attend school, did, but believe they did not acquire any education or had no certificate, while 36% had attended junior high school. Reasons for dropping out of school included the absence of family and financial support. This result supports the findings by Poschke (2013), which states that necessity entrepreneurs often had a low education level. Therefore, in cases where they look for alternative jobs, their preferences are often those that require low or no former education.

A further characteristic of the street vendors investigated was their region of origin. From Figure 2, it was also observed that most of the hawkers originated from the Central Region of Ghana. This is a reflection of the region as one of the poorest regions in Ghana (Ghana Statistical Service, 2014), though the situation is improving. Furthermore, a number of these hawkers find Accra (the capital city) as a good location for setting up street markets.

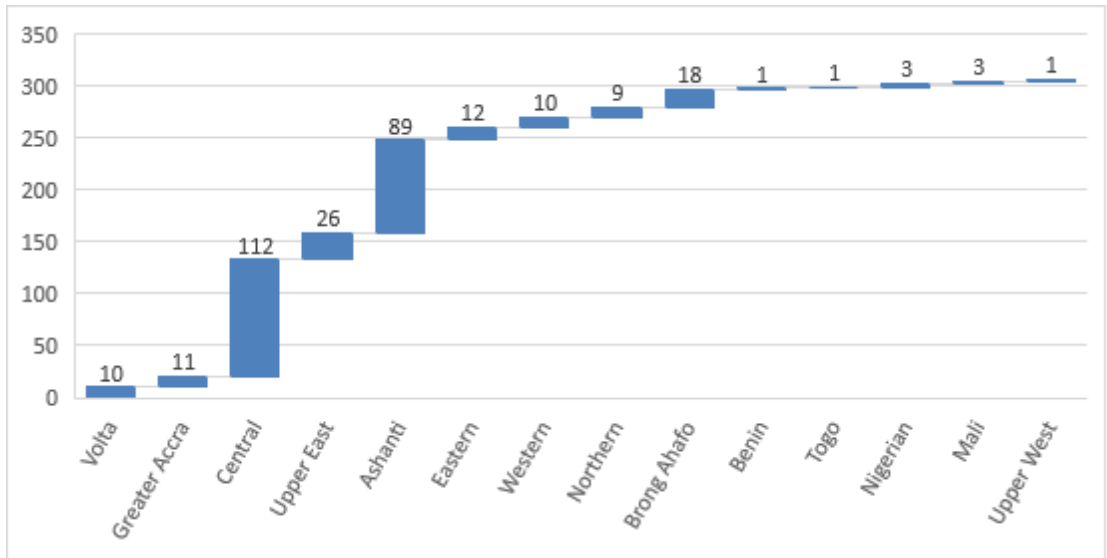


Figure 2: Region of Origin

The results also indicated that eight (8) of the respondents from the sampled data were from neighbouring countries, including Benin, Togo, Nigeria and Mali. The actions of these individuals are contrary to provisions in the Ghana Investment Promotion Act 2013 (Act 865). A schedule to the Act, titled Section 18, stipulates those foreign traders cannot do businesses from “kiosks,” or engage in what is referred to as “hawking or “petty trading” without any definitions whatsoever in the “interpretation section of the Act. As IMANI Africa, an economic and social policy think tank, puts it, an entrepreneur, irrespective of nationality, can set up a business enterprise in Ghana per the provisions of the Companies Code, 1963 (Act 179), Partnership Act, 1962 (Act 152), or the Business Name Act, 1962 (Act 151) (IMANI, 2012).

To further probe into whether they were content with their current job or wanted a change of job, the response of which is as shown in Table 3, over 31% of those who wanted to change jobs suggested trading (buying and selling). Fourteen per cent (14%) were interested in fashion and design, while 13.9% wanted to become professional drivers. These vocations required basic education and training to perform. From the interviews conducted, most of the respondents indicated they would settle for any decent job, such as hairdressing,

sell foodstuff at designated markets or operate a corner shop in the nearby city or town. Others, however, said they had no intention of looking for another job because there were no alternatives.

Table 3: Dream Jobs of the Street Hawkers

Potential Job	Frequency	Percent
Teaching	26	7.1
Banking	23	6.3
Nursing/Doctor	35	9.5
Fashion and Design	52	14.2
Driving	51	13.9
Trading	115	31.3
Caterer	17	4.6
Artisan/ Professionals	34	9.3
Sanitary Work	7	1.9
Security/ Armed Forces	7	1.9
	367	100.0

Source: Fieldwork 2019

This implies that a number of these vendors anticipate moving on from selling in the street to operating a much more sustainable business if they get the chance. As Cirera and Qasim (2014) suggest, necessity entrepreneurs could progress to opportunity entrepreneurs and, eventually, growth-oriented entrepreneurs. Unfortunately, not all street hawking ventures could metamorphose into growth-oriented businesses. As was observed from the interviews, some of the street hawkers anticipated remaining in the business, because they did not see any alternative vocations available.

The second objective was to examine why people go into such ventures and the nature of such businesses. Tables 4 to 6 present the results of this objective. The reasons provided by the respondents included redundancy, to pay for education, being unhappy with the previous job, to provide support for the family, just chose to be one and the need to go into such a venture because there was no option. From the results (Table 4), it was observed that 83% of respondents provided multiple responses from the options provided. The implication is that there were at least two reasons out of the rest why the selected people engaged in the necessity entrepreneurship.

Table 4: Reason for being on the street

Reason for being on the street	Frequency	Percent
Had no other Option	13	4.0
To Support the Family	14	4.3
Chose to be One	8	2.5
To Pay for Education	17	5.3
Redundancy	1	.3
Unhappy with Previous Job	1	.3
More than One Factor	269	83.3
Total	323*	100.0

*There were multiple responses

From Table 4, respondents' engagement in street hawking mainly enables them to meet the basic physiological needs, hence necessity-driven. The findings also bring to the fore the discussion on livelihood options in society. As Sarpong and Nabubie (2015) indicated, these individuals engage in such vocations due to the absence of income, lack of job opportunities and limited government support. This implies that the size of the street hawking activities reflects support and options available in society. So, Minniti *et al.* (2006) submit that the rates of necessity entrepreneurship in a country are negatively related to income and level of social security. Low-income countries are usually countries with the highest rates of necessity entrepreneurship (Reynolds *et al.*, 2002; Acs *et al.*, 2005).

The respondents interviewed indicated, among other things, that the returns from their street hawking activities have been used to pay for their electricity bills, children's fees, rent, feeding and health care. This finding corroborates with what was revealed in the quantitative data. The implication is that the street hawking activities enabled those involved to meet their basic needs but not future higher needs. (Ampadu-Ameyaw *et al.*, 2020; Danson, Galloway & Sherif, 2020) concluded that such ventures are started due to lack of paid employment.

From Table 5, 49% and 48% of the multiple responses indicated that they enjoyed daily income and daily profit, respectively, from street hawking. However, during the interviews, it became apparent that they did not necessarily make a profit as they did not factor critical elements into their cost structure. For example, in our discussion of how they estimated their costs, it was revealed that they did not include the costs, like feeding, while they attempted selling their products on the street. There were also telephone call costs, commuting allowance,

the toll they paid to the local authority, among others. They calculated their profit or loss as the difference between the cost price of the item involved and the selling price. Therefore, they did not make profits in most cases. This problem arose because these street hawkers did not have any books for keeping records. This might be due to their literacy level, including financial literacy. But, as almost all the respondents indicated, they were better off doing this job than staying home or resorting to crime.

Table 5: What Street Hawkers Enjoy

What Street Hawkers Enjoy	Frequency	Percent
Daily Income	298	49.1
Daily Profit	293	48.3
Reducing Boredom	15	2.5
Keeps me from Crimes	1	.2
	607*	100.0

**There were multiple responses*

Meanwhile, about 47.7% (146) of the respondents said they earned between GH¢1- GH¢50 (USD0.2 – USD10.05) a day, as showed in Figure 3. From the figure, it can be observed that the level of income obtained from street hawking reduces as the amount earned on the street increases. This indicates that, although these hawkers make money on the street, what they earn only falls within the lower part of the grouped daily income from the street.

This implies that the vocation is not sustainable. Figure 3 also shows that most of these hawkers do not earn up to the national minimum wage prescribed by law in Ghana. Effective January 2020, the National Daily Minimum Wage went up by 11% point to GH¢11.82 from GH¢ 10.65 in 2019. This means earnings below GH¢11.82 is said to be below the minimum acceptable income per day. Moreover, it was observed that most (about 58%) of those sampled sold mainly food and drinks (Table 6). The possible reason for concentrating on the sale of food and drinks by these hawkers is the easy moving nature of such products. However, it comes with very little profit.

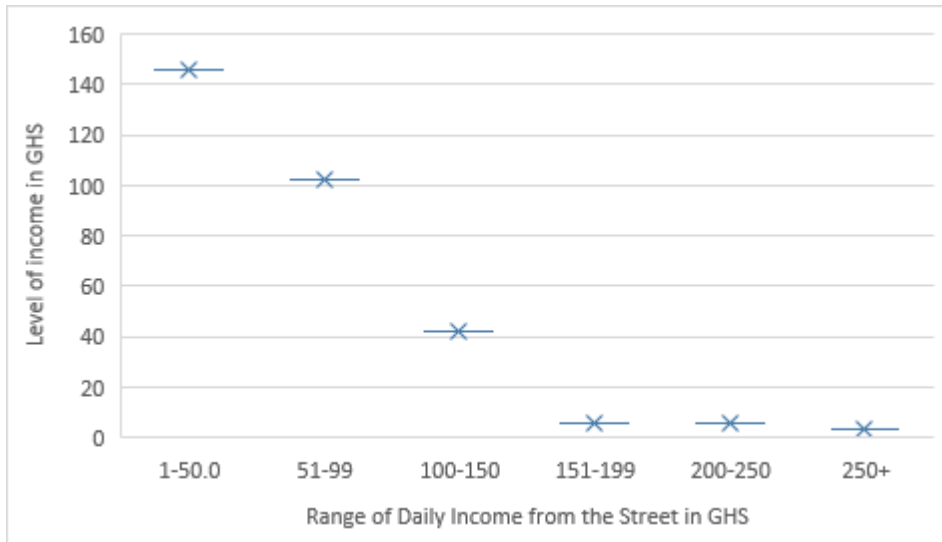


Figure 3 Daily Income from Street Hawking

Table 6: Types of Products Sold

Products	Frequency	Percent
Food/ Drinks	178	58.2
Clothing	25	8.2
Toys	11	3.6
Tools/Parts	8	2.6
Car Products	25	8.2
Others	59	19.3
	306	100.0

Marras and Bendeck (2016) concluded that the increased consumption of street food vending in Africa is because of increased urbanization. However, this is where the major threat posed by these hawkers is felt. During the interactions with them, it was observed they plied their trade in the blazing sun, selling canned drinks, foods, bottled water and, in some cases, medicine. This, from the literature, possess a serious health risk (Jaishankar & Sujatha, 2016; Cortese *et al.*, 2016). Besides the health risk exposure, their inability to afford proper storage means there is a possibility for some of their products to go bad. It was also interesting to observe that few respondents (8.2%) sold car-related

products. This means that their target customers are not cars or other vehicles, but passengers and other pedestrians.

In addition, the results revealed that some of these street hawkers sold everything including clothing, toys, tools/parts, car products, electronics and cosmetics. This implies that these businesses suffer from strategic risks; the risks arising from making poor business decisions of what to sell at what time. Nevertheless, during the interview, some respondents indicated they sold products according to the season within the year. Thus, they sold products during Easter, Christmas, Ramadan and Valentine's Day. This supports the view of Hudakova *et al.* (2017), that small businesses, such as these, face risks, including strategic risks.

As part of the motives for engaging in this venture, the period hawkers had spent in the street was estimated. It was observed that the majority of them had been on the street between 1-2 years, as showed in Table 7. Overall, 69.6% of the respondents had been on the street for less than a year to two years. This has implications for employment for people who seek other job opportunities. As indicated earlier, there are limited job opportunities for people with lesser or no education.

Table 7: Time Spent on the Street

Time	Frequency	Percent
< 6 Months	61	20.2
1 Year	76	25.2
2 Years	73	24.2
3 Years	38	12.6
> 3 Years	54	17.9
Total	302	100.0

From the interviews, about 18% of the respondents stayed longer and these are people who do not possess any formal training, often. This can be more than three years. However, those who have learnt some vocation, like hairdressing, barbering, or carpentry, may often engage in street hawking until they have some capital to start their business. This also brings to the fore the issue of access to capital in starting a small business in Ghana. Even though

there is a belief that these necessity-driven ventures could migrate into a sustainable business, the issue of access to capital can hinder such a transformation.

The respondents also said some of them stay until they get space in the main markets or set up some corner shops at a more strategic location before they leave the street. As one respondent puts it:

... 'I have been here for more than five years and since I do not have any other training, I am likely to be here for a long time. I have hope that things may change and I can get a better job, so you may not find me on the street next year. It is a matter of time....'

This finding does not necessarily corroborate the results obtained from the quantitative method, where the respondents indicated they are often on the street between one to two years. It does not negate the findings from the quantitative approach, but provides new and additional information, especially from the different people involved in the vocation. For instance, the interview revealed that there are some of the street hawkers who were there temporarily because they need to raise capital to start their own formal business in other areas. For example, five of the respondents indicated that they knew some Junior High School graduates who were in the street to raise money to enable them to get into Senior High School. This was before the introduction of the free senior high school education in Ghana.

The third objective sought to evaluate the entrepreneurial inclination of those engaged in such businesses. The results are presented in Tables 8 to 11. Among the indicators included their risk tolerance, job creation ability, and the perception of street hawkers about entrepreneurship. From the interview, they enumerated the risks they face while on the street. These include accidents (being knocked down by vehicles and motorists), harassment from local authorities due to the inability of these vendors to pay levies, mistreatment by customers, and fatigue because of the constant movements on the streets.

Table 8: Risks of Street Hawking

Dangers of Street Hawking	Frequency	Percent
Accidents (Physical risk)	45	10.2
Stress (Psychological risk)	174	39.5
Low Sales (Demand risk)	146	33.2
Harassment by Local Authorities (Compliance risks)	21	4.8
Exposure to Heat (Sunlight)	42	9.5
Lack of Respect (Reputational risk)	6	1.4
No Problem	4	.9
Perishability of Goods (Operational risk)	2	.5
Total	440	100.0

**There were multiple responses*

Street hawking is a major means of making a living for most of these individuals. This was against the backdrop that several of them (40%) were stressed by hawking on the street due to the action of city authorities, to evict them from their locations. The reason ascribed to such eviction is the occupation of space, thereby creating congestion in the cities. They are often blamed for congestion and traffic in the cities and locations they operate. Adama (2021) revealed that street vendors are most often harassed and subjected to violent treatment by law enforcement officers. Others (33%) also indicated they recorded low sales (Table 8). With many of these vendors not likely to have a storage facility for the foods and drinks they sell, lack of patronage of their products, resulting in low sales, could be frustrating, leading to the stressful condition they experience. During the interview, the street vendors also said that they were often pursued by city authorities as part of their decongestion of the street. It was observed that hawkers in Accra and Kumasi were mostly affected by such actions. This certainly contributes to the stress levels of the street vendors.

Studies (e.g., Kumari, 2015; Hudakova *et al.*, 2017; de Araújo Lima *et al.*, 2020; Treschevsky *et al.*, 2020) outline numerous risks small businesses face including those listed in Table 8. Despite the risks associated with their vocation, these vendors continue to remain in this business. As indicated in

Table 7, several of them have engaged in the street business for more than one year. The next test of entrepreneurialism is the job creation potential of the street business. From Table 9, respondents representing about five per cent indicated they employed others to work for them. This indicates business growth, although one cannot easily conclude on the sustainability of such businesses. However, about 88% of the street hawkers (see Table 9) said they did not enjoy street hawking. About 98% said they preferred another job. This is an indication that they are not satisfied with their current activities of street vending. They may be engaged in this because they have no alternative. Meanwhile, more than half of those sampled (53.9%) indicated they have improved skills in engaging in street hawking. This includes basic selling and business skills.

Table 9: Employment and Job Creation

Issues on Employing Others	Yes		No	
	Frequency	Percent	Frequency	Percent
Preference for another Job	300	98	6.0	2.0
Enjoyment of Street Hawking (Current job)	36	11.8	270	88.2
Engaged in any Previous Job	34	11.1	272	88.9
Employment of Others.	15	4.9	292	95.1
Improvement in Skills	165	53.9	141	46.1

N=306

Key among the skills the respondents indicated they had acquired included customer relations, knowing where to obtain needed raw materials, patience, ability to monitor traffic, negotiating for goods on credit, endurance and pricing techniques. This implies the street hawking experience has a positive impact on those involved. These skills are required in the successful management of a venture.

To further probe into the skills acquired in the process of being on the street, respondents were asked questions concerning the skills/qualities/behaviour required to be successful on the street. Results from the in-depth interview with the so-called ‘elderly people’ at the different locations revealed that street hawkers need to be well dressed, talk politely to customers, be jovial, know price trends, be at a strategic location (look for

traffic prone areas), consider the most appropriate time to be on the street and be watchful on the road. The results from the two approaches converge on issues of business and marketing skills and competencies. Williams (2009) concludes that this type of entrepreneur can transition from being necessity-driven to opportunity-driven. This is most especially so when they learn and acquire skills and competencies for being on the street.

A follow-up question on why people, especially those who were not content with the street hawking job, continued to stay with that work was asked. Among the options provided (Table 10), 34% of respondents indicated there were inadequate jobs for the youths. Entrepreneurship and self-employment are antidotes for the lack of job opportunities in developing economies (Reynolds *et al.*, 2002; Minniti *et al.*, 2006). It provides the bulk of jobs for the vulnerable, especially women.

Table 10: Seeking Alternative Jobs

Reasons for not looking for another job	Frequency	Percent
Have No Education	151	24.7
Prefers Current Work	16	2.6
Lack of Experience Employers Need	4	.7
The need to know Someone	102	16.7
Inadequate jobs for the Youth	210	34.4
The current work Sustains me/my Family	102	16.7
No Capital start another Business	26	4.3
Total	611*	100.0

**There were multiple responses*

Furthermore, 25% of respondents showed they did not look for an alternative job because they did not have an education. Meanwhile, 17% perceived they needed to know someone before they could obtain an alternative job. From the results, lack of jobs, especially for the youths, received the most responses as the reason for being a street hawker. As indicated earlier, the absence of significantly paid jobs compelled people to enter such a necessity-driven venture. This is well documented in the literature (see Danson, Galloway

& Sherif, 2020; Ampadu-Ameyaw *et al.* 2020). Furthermore, these hawkers said they had not looked for another job because they did not have the needed education required in securing other jobs. Generally, these hawkers often come from poor homes, which prevents them from accessing education. Thus, they often have low or no education (Bhola, *et al.*, 2006; Poschke, 2013).

A major issue that emerged from the interviews of the respondents was the unavailability of jobs, inadequate finances, and the appalling nature of trading on the street. As one respondent put it:

....' there are no alternative jobs for us to do; we do not have adequate finances for other businesses; and we realized that sales were high with what we hawk around the streets and, therefore, did not attempt getting another job....'

This finding corroborates the results obtained from the quantitative method, where the respondents cited inadequate alternative jobs as some of the reasons for being in the street. Meanwhile, the interviews revealed additional information, such as lack of access to finance, as one of the reasons for engaging in street hawking.

A further enquiry into their perception of entrepreneurship produced the results in Table 11. From the table, 65% of respondents considered themselves entrepreneurs. Such a response rekindles the age-old debate about who entrepreneurs are. Previous studies have argued that mere buying and selling without any venture growth prospects cannot be classified as entrepreneurship.

Table 11: Street Hawkers as Entrepreneurs

Street Hawkers as Entrepreneurs	Frequency	Percent
Yes, I am an entrepreneur	197	65.2
I am an entrepreneur on occasion	77	25.5
I am not an entrepreneur	15	5.0
No opinion	13	4.3
Total	302	100.0

Ahmad and Seymour (2008) argue that engaging in risk arbitrage alone is not adequate for a person to be classified as an entrepreneur. Indeed, it also raises the question of how these individuals are classified, necessity entrepreneurs. As much as these hawkers are necessity-driven, they take risks as already discussed. Drawing on the definition of entrepreneurs that describes them as risk-takers, these hawkers may classify themselves as entrepreneurs. It should, however, be noted that such activities could form the foundation for developing growth-oriented entrepreneurs.

Conclusion

The study examined the socio-demographics of street hawkers and evaluated their entrepreneurial inclination. From the results of the study, the street hawking vocation is a female and youth dominated activity. Furthermore, it is a venture for those with little or no education, especially people from the relatively poorer region including neighbouring countries. Secondly, it was concluded, among other things, that the quest for meeting one's necessities/basic needs, lack of formal jobs and poverty are the motives for people entering into such a venture. The street hawking activities provided income and livelihood for those engaged in it. Thirdly, street hawkers exhibit a high propensity to take a risk, a critical entrepreneurial quality. They take various kinds of risks, including psychological risks, demand risks, health and safety risks and operational risks. Despite the risks that confronted them, they remained in the business. Hence, these street hawkers exhibit some level of entrepreneurial inclination. From the results, there is a possibility for some of them to go into operating sustainable businesses. This stems from the skills they acquire while on the street.

Implications

Policy/Practice: This study found that street vendors had very low or no education at all and the vocation is dominated by women and the youth. There is, therefore, the need to find out how a few of the children who must be in school get onto the street, after practicing the Free Compulsory Basic Education (F-CUBE) after two decades.

For the adults among the current street hawkers, a social intervention programme should be instituted to equip them with the right employable skills. This will develop their skills and promote their business growth. An apprenticeship programme or competency-based training could help these people discover or re-discover themselves. Since several of them sold food items, training them to learn, for example, food or fruit processing would be appropriate. There is an urgent need for orientation on how to handle the food item they sell (in the hot sun) due to its negative health consequences if improperly handled. This would help reduce the potential threats such foods pose to the consuming public.

The street hawkers occupy pavements, pedestrian walkways and sell in traffic, thus endangering themselves and others. There is a need for a policy on where people can trade in the cities. If this policy exists, then it should be enforced to reduce this risk exposure. Further policy on the nature of food items that could be sold in the hot sun should be introduced and enforced by the relevant body to reduce such health hazards. Meanwhile, the passion with which the street hawkers did their business and their high-risk tolerance level, exemplify some qualities of entrepreneurs that could be nurtured.

Research: The study also has implications for entrepreneurial research. It tends to resurrect the long-standing issue of who is an entrepreneur. The research issue for further investigation is whether entrepreneurial inclination is affected by time. This is because a few successful businesses had started similarly, like what these street vendors are doing in the areas they operate and have moved to become small and medium-sized businesses.

Social implications: There needs to be a social intervention programme to equip the street hawkers with the right employable skills to help develop their skills and promote the growth of their businesses. The paper also makes a case for nurturing their skills as a means of poverty alleviation.

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Is the selection of Ghanaian policy makers based on socio-cultural and ethnic reasonings relevant in today's politics? Evidence from the Cape Coast Metropolis in Ghana

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Abstract

This study examines the effect of appraisive attitudes on citizens' participation behaviour at the sub-national electoral levels in the Cape Coast Metropolis, Ghana. The study was quantitative with cross-sectional explanatory design. The study population was 1145 with a sample size of 291. The SPSS was employed for descriptive analysis and the Smart PLS was employed for structural equation modelling. It was found that all the three dimensions of appraisive attitudes (policy responsiveness, performance and integrity) used in this study have positive effects on citizen participation behaviour in the study area of the Cape Coast Metropolis in Ghana. This means Africans have come of age and the days of choosing Africa policy makers based on socio-cultural and ethnic reasoning appear to be over. Policy makers must, therefore, take into consideration the interests of the citizens and work to improve on their living conditions in order to sustain their political career.

Keywords: *Appraisive attitudes, Citizen participation behaviour, Africa elections, Policy makers, Ghana*

Introduction

Globally since the 1980s, the need for effective citizen participation in most parts of this world has risen significantly at the local, state, and national levels (Nabatchi, 2012). The calls for more direct public participation have been the result of the realisation that it can have “positive benefits to the substance, transparency, legitimacy, and fairness of policy development as well as the general view of government held by citizens” (Lukensmeyer & Torres 2006, p.5). Besides, through voting citizens get the chance to collectively go beyond deciding not only who should govern them but also how they should be governed and what system of governance best suites them (Gyimah-Boadi & Prempeh, 2012). The idea here is that the position of citizens has been moved from the position as consumers to active shapers of government policies and programmes (Cornwall & Gaventa, 2000), and this improves acceptance, ownership and compliance (Sacks, 2012). Thus, voting plays a crucial role not only in determining the prospects of policy makers, but also the welfare of citizens themselves, since it makes governance better or worse, and, in turn, makes the lives of citizens better or worse (Brennan, 2011).

However, despite the significance of public participation in democratic process, citizens’ participation behaviour in Africa does not receive much attention as other parts of the world due to the notion that the participation behaviours of Africans are not based on any other reason apart from their socio-ethnic background (Tranter, 2013). Diller (2001, p.21) points out that citizen participation is “*an individual’s duty to embrace the responsibilities of citizens with the obligation to participate alone actively, or in concert with others, in-service activities that strengthen the local community.*” This is particularly true when one considers some of the past studies that have been done in Africa. For example, in Ghana, Asingo (2015) has demonstrated that owing to the scarcity and ambiguity of political information, voters tend to resort to social identities, particularly ethnicity, for heuristic cues on how to vote. Others also argued that being aware of the influence of socio-ethnic identity, personal linkages and clientelism, Ghanaian leaders often resort to ethnic identities as the basis for forming political voters and mobilising support for their parties, and the cycle continues (Alidu & Bukari, 2020; Adams, Agomor & Youmbi, 2018). What this means is that the vital element that shapes the decision and electoral choice of the

citizens is dependent on socio-cultural and ethnic reasoning without taking into account the relevance of policy alternatives. Citizens' participation behaviour was measured in terms of the voting decisions made by voters in respect to whether they need to vote for the incumbent or another candidate during the party primaries (Xiong, 2019).

However, the recent development in the Africa democratic process has made some experts to consider the socio-cultural and ethnic reasoning of African voters to be inappropriate. This is because it has been noted that there are other factors that shape the voting choice of the electorates, considering the homogeneity of most African tribes (Vandewalle, 2020; Musah, Boah & Seidu, 2020). This argument is based on the rational choice theory, which explains that citizens' participation behaviour in such contexts of homogeneity is likely to be influenced by other factors other than socio-cultural and ethnic identity. Thus, the shrewdness of individual voters contributes to their judgement of candidates and parties along specified parameters. These judgements inform what voters think and feel about the candidates and dispose the individual voters to either vote for or reject the candidates (Bratton, 2017). Therefore, it is fair to believe that there are other factors that need to be considered in influencing citizens' participations behaviour.

Nonetheless, while globally a lot of studies have been done, they often tend to focus on the general elections at the expense of party primaries and more so at the subnational level (Bratton, 2013; Tsuruyo, 2013). In the context of Africa and Ghana, according to Aragon, (2014), there are three main explications as to why parties decide to use primaries. In the first place, primaries help to prevent expensive internal conflict. Secondly, primaries have the potentials to assist the party to have better quality selection of their candidates at the grassroots levels (selection effect). Lastly, primaries "may increase internal competition and create incentives among candidates to exert more effort during the electoral campaign (incentive effect)", (Aragon, 2014, p.2)

However, considering the various studies (Nwanganga, Nwachukwu & Mirian 2017; Anebo, 2018; Harding, 2019; Bossuroy, 2008; Debrah, 2015) that have been done on primaries, while suggesting that the voters are rational people, did not address the issues like economic conditions, the incumbents' performance and personality, which usually affect their vote choice. Additionally, the various

studies failed to consider voting during party primaries as well as the subnational level of voting. Therefore, they failed to adequately fit in explaining citizens' participation behaviour in Ghana's party primaries, particularly in mono-ethnic constituencies. In party primaries where voters choose among candidates within the same political party, especially where only one party is dominant, although certain malpractices, like 'vote-buying' and tribal sentiments, play certain roles in the selection of the potential policy maker, partisanship is minimised as a factor influencing citizens' participations behaviour (Debrah, 2015). The primary level is important in this study for the following reasons. In the first place, it is during primaries that party members or voters choose the party's candidate who will represent them at the general elections (Hazan & Rahat 2006). Besides, it is at this stage that the appraisive attitudes of candidates are brought to bear but not on the basis of being affiliated to the party (Nwanganga, Nwachukwu & Mirian 2017; Debra, 2015). Appraisive attitudes are considered to be a collection of related personal and electoral judgments of candidates and parties, as well as conditions. The dimensions of appraisive attitudes include: candidates' policy responsiveness, candidates' performance and candidates' integrity (Bratton, 2013).

In general, the appraisive attitudes of candidates were measured in terms of voters' opinion on their candidates' responsiveness, performance and integrity. This was done in line with studies carried in the area of elections (Bittner, 2011; Ntim, 2018; Gibson & Long, 2019). Policy Responsiveness was also measured using the Multifactor Policy Questionnaire (MPQ) developed by (Manza & Cook, 2010). On the other hand, Policy Responsiveness was measured in terms of the degree of congruence between candidate agenda and voters' preferences and eight (8) items were selected in line with the study of Lindberg and Morrison (2019). Again, for Performance Evaluation, it was measured in terms of the performance index developed from responses to a battery of survey questions on candidate's perceived ability to initiate and complete projects, as reported in survey responses developed by Dalton (2018).

At the level of party primaries, unlike the national parliamentary elections where candidates are chosen based on the political parties' affiliations, it is at this level that there is no distinction between candidate A and B due to the fact that they all belong to one party. The implication here is that, at this level, the voters' decision to vote for their candidates are uncertain. Thus, the tendency to

rely on social structure and political parties as institutional structures to explain citizens' participation behaviour, therefore, leaves us with a gap in knowledge as to what factors influence citizens' participation behaviour during party primaries in ethnically homogeneous politics. It is this gap that this study seeks to address by examining the effect of appraisive attitudes on citizens' participation behaviour at the sub-national electoral levels in the Cape Coast Metropolis, Ghana. Based on the purpose of the study, the study has three specific objectives which are to: examine the effects of candidates' policy responsiveness, candidates' performance and candidates' integrity on citizens' participation behaviour at the sub-national electoral levels in the Cape Coast Metropolis.

Research Hypotheses

Considering the specific objectives of the study, the following hypotheses were to be tested:

H1: Candidates' policy responsiveness has a significant positive effect on citizens' participation behaviour.

H2: Candidates' performance has a significant positive effect on citizens' participation behaviour.

H3: Candidates' integrity has a significant positive effect on citizens' participation behaviour.

In the context of significance, this study challenges the conventional mentality that participation behaviours of Africans are not based on any other reason apart from their socio-ethnic background. It, therefore, empirically challenges the ethnic census theory by proving that it is a limited paradigm of understanding voters, because it can only be applicable in ethnically heterogeneous constituencies and at the national level of elections. Indeed, even at the national level during the era of broad coalitions that bring together main actors from different ethnic communities, the ethnic census theory collapses. Thus, the study's findings contribute to proving that voters are rational actors who evaluate their candidates, using more variables beyond ethnic identities and loyalty to political parties. Policy makers can also make use of the study results as they can understand that the development of their political career cannot be based on their ethnic backgrounds alone, but rather other factors. The rest of the study includes literature review, which involves discussion on the theory underpinning

the study, the concepts of Appraisive Attitudes and Citizens' Participation Behaviour. The second part focuses on the research methodology, while the third part discusses the study findings, including the conclusions.

Literature Review

Rational Choice Theory

The rational choice theory assumes that individuals are rational actors who have the ability to measure the cost and benefit of making one choice instead of the other. This is guided by a set of reasons over and above a person's socialisation or their genetics (Lupia, McCubbins, & Popkin, 2000). This implies that a person is aware that they cannot always get what they want in a world of competing interests. Such rational people are, therefore, expected to trade-off on some of their positions, beliefs and preference (Tetlock, 2000). The theory also posits that people are generally self-interested actors, which means that people are inward looking and are primarily concerned with outcomes that work to their advantage. This also means that people always seek to maximise the utility of the outcomes of their choices (Olson, 1989). This utility maximisation is derived from a gross estimation of electing a particular candidate and, depending on the level of satisfaction they expect, go ahead to vote for the candidate. It is a form of expected utility because it is based on benefits one expects to derive from taking an action whose impact will be felt in future. In other words, a voter's decision to vote for a certain candidate is an investment and not consumptive. Finally, the theory assumes that decisions in collective action are motivated by a desire for collective good either for group members or for the wider society (Asingo, 2018). A voter realises utility and satisfaction when their candidate wins the electoral contest and brings about policies and programmes that the voter wished for (Ordeshook & Zeng, 2017; Morton & Williams, 2010).

The theory was suitable for the study because party primaries entail competition among more than two candidates and in that case the probability of rational voting behaviour in order to maximise the utility of one's ballot arises (Ordeshook & Zeng, 2017). In particular, the theory as discussed above helped to answer all the various research objectives. For example, it helped to answer the performance evaluation objective as voter rationality enabled them to evaluate past performance of incumbents, thus giving them reason to either punish them

by electing competitors or reward them by giving them their votes. The theory also has both retrospective and prospective perspectives. Retrospectively, voters tend to punish incumbents who have performed poorly and continue rewarding those that perform well. In the same way, prospectively, voters tend to evaluate candidates based on what they have achieved in their past occupations and hope that they will bring the same good performance when serving in electoral offices (Key, 2014; Fiorina, 1981). Thus, both in terms of integrity and responsiveness to the societal needs, the theory helps to explain citizens' reasonings of choosing a particular candidate.

Conceptual Review of Appraisive Attitudes and Citizens' Participation Behaviour Concept of Citizens' Participation

Currently, despite the vast scholarship on the subject of citizen participation, there is no single, widely agreed-upon definition. However, Diller (2001) points out that citizen participation is “*an individual's duty to embrace the responsibilities of citizens with the obligation to actively participate, alone or in concert with others, in service activities that strengthen the local community*” (p.21). Schlozman and Brady (1995) also described it as any voluntary action by citizens that is more or less directly aimed at influencing the management of collective affairs and administrative decision making.

In the context of this study, citizen participation is understood as the actions undertaken by people in order to solve problems and improve the well-being of citizens. In essence, citizen participation focuses on the process of the decision-making behaviour of citizens to participate in activities or affairs within their community. From an individual perspective, citizen participation tends to help citizens to increase sense of collective interests, break down walls of insularity, improve trust, and develop a higher degree of respect for others in the country (Cooper, Bryer & Meek, 2006).

On the other hand, from a macro perspective, citizen participation becomes the cornerstone of politics and governance which sustains a vibrant democracy (De Tocqueville, 1990), foster cooperation between the government and individuals, enhance government responsiveness, and lead to effectiveness of governments (Putnam, 2000). Tang and Hu (2016) stated that the driving force

behind participation behaviour of citizens is mainly based on national and local identities.

Appraisive Attitudes and its Dimensions

Appraisive attitude refers to human activity in the context of elections and it can be considered as a set of related personal and electoral judgement of candidates and parties along specified parameters (Bratton, 2013). These judgements inform what voters think and feel about the candidates and dispose the individual voters to either vote for or reject the candidates. In this study, appraisive attitudes shall mean the cognitive and affective triggers that lead to voters making the choices they make at the ballot. Thus, it encompasses both the actions and inactions of people regarding electoral participation, as well as for whom to support if one decides to engage in the voting process (Rule, 2014). The study of evaluative attitudes, therefore, constitutes an attempt at unpacking the context in which voters make decisions about candidates through assessing the candidate for elections. Thus, voting decisions do not take place in a vacuum, instead, they are based upon a candidate's life experiences. Voters' choices are likely influenced by a multiplicity of factors after evaluating these factors concerning their candidates.

In terms of dimensions, research has shown that the electorate may determine their votes on the basis of one or more of the following considerations: (1) the performance of the incumbent candidate, (2) the voters' positions or orientations on specific issues of the candidate (integrity), (3) responsiveness to the needs of the people, and/or (4) the personality of candidates, and (5) the identity or ethnic background of the candidate (Prysbly & Scavo, 2018; Ofori, 2019). In the context of this study, the first three variables were examined, since they were the ones considered to be absent in African voters' calculations.

Responsiveness Evaluation

Policy responsiveness is a goal of democratic government which shows that policy makers tend to respond to public preferences on issues that are crucial to the citizens (Soroka & Wlezien, 2010). According to Soroka and Wlezien (2005), the responsiveness apparatus often function as follows: "where the public notices and responds to policy in a particular domain, policy makers would notice

and respond to public preferences themselves; where the public does not respond to policy, policy makers would not represent public preferences” (p. 668). The idea here is that responsiveness device means policy feedback, which is “critical to the ongoing functioning of a political system” (Soroka & Wlezien, 2010, p. 15).

Thus, with responsiveness evaluation, the capacity of political systems, through the elected and appointed officials to respond to the issues affecting the citizens and expressed through public opinions are considered (Manza & Cook, 2019). The responsiveness is expressed through public policies that are congruent to the problems faced by the citizens. In this study, the concept refers to the policies that candidates promise to put in place once they get elected to office. A prerequisite for proposing policies is having knowledge of the problems that need policy intervention.

Performance Evaluation

Dalton (2018) has noted that performance evaluations are judgements about how political actor (party, candidate, or government) have been doing their jobs. Performance evaluations are often considered both retrospective and prospective. Retrospective performance evaluation refers to the voters’ perception of the incumbents’ ability to put in place mechanisms for solving the problems that the voters faced before they came to office as well how well they dealt with new problems that required action from the elected officials. Prospective evaluation refers to the expectation that voters have of challengers to deal with problems facing voters.

Traditional perspectives generally have assumed that performance evaluation systems and processes operate in rational and systematic fashion (Ferris, Munyon, Basik & Buckley, 2008). However, other perspectives have argued that performance ratings are susceptible to influence by such non-performance factors as politics and active manipulation. In their model of political influence in human resources systems, Ferris and Judge (1991) argued that the performance evaluation process is susceptible to subjective factors and “deliberate manipulations by both evaluators and evaluatees” (p. 461).

Candidate Integrity Evaluation

Candidate integrity evaluation refers to the perceptions of the candidate's personal traits. Candidate integrity has multiple indicators, as explained by Miller (2016). In this study, candidate integrity encompasses perceptions of honesty and trustworthiness. Personality traits of candidates have emerged as a decisive factor in electoral studies and are the most frequent way to assess voters' evaluations of political candidates. Traits are a central aspect in leader evaluation because they function as shortcuts for voters in understanding and processing more complex and demanding information, as '*it is easier for people to evaluate political objects on the basis of personalities, because citizens apply the same processes in their everyday life*' (Capelos, 2010, p.13). This is particularly useful for voters because it relies on the same mechanisms they apply on a daily basis when dealing with other individuals, providing a framework for categorising the variety of available political information through affective and cognitive images.

Research Methods

This study adopted the positivist approach since it relates to the philosophical system that embraces issues that can be scientifically verified and hence provides a basis for generalization (Saunders & Bezzina, 2015). Besides, the study used cross-sectional survey time horizon design. This means the collection of data focused on many units during the same period so as to obtain qualitative or quantitative data related to variables, in an effort to determine associations between the variables after the data have been analysed (Neuman & Robson, 2014; Saunders et al. (2016). Hence, correlational design was also adopted for this study.

In terms of research approach, the study employed the quantitative research approach which granted the researchers an opportunity to generalise the results of the sample to the whole population or a sub-population since it involves the larger sample which was randomly selected (Carr, 1994). Moreover, unlike qualitative research approaches which sometimes leave out contextual sensitivities (Silverman, 2013a), quantitative considers contextual influence and policy makers often give high credibility to its results (Sallee & Flood, 2012).

The study area is the Cape Coast Metropolis, which is cosmopolitan community located in the Central Region. It is characterised by high level of

literacy, economic independence people, lack of tribal sentiments and large population. All these contribute to the rationality of voters to play a major part during grassroots political party elections since vote-buying and tribal sentiments, unlike rural areas, are minimised (Debrah, 2015; Bratton, 2013). The idea here is that, during primaries, appraisive attitudes of candidates are more likely to be seen than any other places in the Central Region. This explains why the place is often perceived as a swing region (Lindberg, & Morrison, 2005; Adams, Agomor & Youmbi, 2018). The implication here is that the Member of Parliament election results from this region do not always go in favour of a particular political party. Also, the Member of Parliament candidate contest was selected over national parliamentary because it helped to contextualise the study to the most basic sub-national level of elections which, as mentioned earlier, is largely understudied. In addition, with the study conducted at the local level, the potential policy makers are in closest proximity to the delegates, which makes it easier for voters to evaluate them with greater accuracy compared to the national elections.

The population for this study consisted of all the delegates who had been members for the past 5 years and partook in the 2020 party primaries elections of the New Patriotic Party (NPP) from both the Cape Coast North and South constituencies in the Cape Coast Metropolis in Ghana. Data was acquired from the constituency offices and the total population for this study was one thousand, one hundred and forty-five (1145) delegates. Regarding the sample and sampling procedure, the simple random technique of probability sampling, which warrants drawing of a representative sample from the target population and making statistical inferences from data (Ofori & Dampson, 2011), was adopted for this study. This technique was selected because it fits best for the quantitative research approach and it granted unbiasedness in the selection of any of the study units (Saunders et al., 2016). The sample size of the study was two hundred and ninety-one (291) delegates. This was determined using Krejcie and Morgan's (1970) sample determination table. Based on a sample size of 291, a proportionate representation was calculated for each constituency. In the case of Cape Coast North, with a population of 526, a sample size of 134 was used, while with a population of 619 for the Cape Coast South, a sample size of 157 was used.

The study recorded a 91% of 291 response rate because 265 staff responded to the questionnaire in both constituencies. Among these, out of 134

sample size, 122 represented the Cape Coast North and, out of 157 sample size, 143 for the Cape Coast South. Only 9% (26) respondents failed to return the instrument. The high response rate was attributed to direct contact and follow ups between researchers and the respondents.

Descriptive Statistics

The proportion of men in the study (55.8%) was higher than that of women (44.2 percent). Overall, most respondents were between the ages of 36 and 54, indicating that most of them were adults and matured enough and, therefore, were able to understand and respond to the issues raised in the survey. Also, it was found that most respondents (81.9%) had some education, including high school and college/university. Finally, when it came to the number of years respondents had been members of the New Patriotic Party (NPP), the highest proportion (41.8%) had been a member for 6-10 years.

Measurement of Variables and Data Collection Instrument

The variables used in this study were measured relying on previous empirical literature in areas of appraisive attitudes and citizens' participation behaviour. This allowed for the design of an instrument based on validated scales. Appraisive attitudes in this study were measured using various sources. The concept of three appraisive attitudes in evaluating candidates was adopted from Prysby and Scavo (2018), and Ofori (2019); however, the measures of the individual appraisive attitudes were adopted from scales with confirmed reliability. The appraisive attitudes of candidates were measured in terms of voters' perception of their candidates' responsiveness, performance and integrity. This was done in conformance with studies conducted in the area of elections (Bittner, 2011; Ntim, 2018; Gibson & Long, 2019). Citizens' participation behaviour was also measured in terms of the voting decisions made by voters in terms of whether to vote for the incumbent or another candidate during the party primaries (Xiong, 2019).

Policy Responsiveness was also measured using the Multifactor Policy Questionnaire (MPQ) developed by Manza and Cook (2010). Policy Responsiveness was measured in terms of the degree of congruence between candidate agenda and voters' preferences and eight (8) items were selected in line

with the study of Lindberg and Morrison (2019). Lindberg and Morrison (ibid) reported a cumulative Cronbach alpha of 0.88. Again, for Performance Evaluation, it was measured in terms of the performance index developed from responses to a battery of survey questions on candidate's perceived ability to initiate and complete projects as reported in survey responses as developed by Dalton (2018). Eight (8) items were selected in line with Gibson and Long (2019). The scale is based on voter's perception of the candidate performance. Long and Gibson (ibid) reported a cumulative Cronbach's alpha of 0.84.

Again, Candidate Integrity was adapted from the scale of Miller and Shanks (2016), which explains candidate integrity as the perceptions of the candidate's personal traits. The scale was measured in terms of perception of honesty of the candidate and perception of trustworthiness of the candidate, which was made up of eight (8) items with the reliability of 0.799 in line with Bossuroy (2008). Lastly, the measurement of Citizens' Participation Behaviour was based on Zimmerman and Zahniser (1991), who designed political behaviour scale that consisted of 9 items.

In this study, with Candidates' Policy Responsiveness, Performance and Integrity of 8 items each, the result indicated that the Cronbach's Alpha values were: 0.804; 0.776 and 0.818, respectively. On the other hand, with Citizens' Participation of 9 items, the result of the Cronbach's Alpha value was 0.908. Based on the criteria of Pallant (2016), all items showed a high level of reliability.

In terms of data collection, a self-administered questionnaire was the instrument used. The questionnaire items were measured on a seven-point Likert-like scale, ranging from the lowest agreement to the highest agreement. The use of a self-administered questionnaire is justified since, based on the busy nature of the respondents, they could best provide responses in a non-supervised way. Also, using questionnaire guarantees greater uniformity, consistency and objectivity (Sekaran & Bougie, 2016). In addition, privacy and convenience of respondents can be accomplished during questionnaire completion, thereby ensuring greater anonymity (Neelankavil, 2015). Close-ended questions were used to elicit responses needed to answer the research questions and achieve the objectives set for this study.

Regarding ethical consideration, after the permission had been granted by the University the respondents were informed clearly about the aim of the study.

The respondents were subsequently informed of anonymity and confidentiality. The researchers assured the respondents that their names would not be disclosed. As such, all information received from them (respondents) would be treated with the highest degree of confidentiality. In addition to this, the researchers also informed the respondents that they were free to cease to give any response if they so wished. Finally, the researchers did not withhold any information about the study's possible risks, discomfort or benefits or deliberately deceive study subjects on these matters.

Data Processing and Analysis

The statistical tools employed for this study were Statistical Package for Services Solution (SPSS) version 24 and Smart PLS version 3. The SPSS was employed for descriptive analysis and the Smart PLS was employed for structural equation modelling based on the hypotheses of this study. PLS is quite robust regarding inadequacies, like skewness, multicollinearity of indicators and misspecification of the structural model (Cassel et al, 1999). In SEM, confirmatory factor analysis, correlation analysis, and regression analysis can be conducted at one time in a model. In line with the benefits above associated with SEM, this study relied on PLS-SEM to test the various hypotheses.

Results and Discussion

Results of the Study

Assessment of Measurement Models for the Study

The measurement model assessments included indicator loadings, Internal consistency reliability (Composite reliability), Convergent validity (AVE-Average variance extracted) and Discriminant validity (Fornell-Lacker and HTMT). For the item indicator loadings, they all loaded above the threshold of 0.6. As recommended by Hair, Risher, Sarstedt and Ringle (2019), they proved the reliability of the overall model. Regarding the Internal consistency reliability (Composite reliability), the results indicated that all latent variables in the study were reliable, as they all loaded above the 0.7 threshold, as suggested by Hair et al. (2019). Moreover, Convergent validity (AVE-Average variance extracted) was tested to show how the constructs correlates positively with alternative measures of the same construct. The items indicated that all constructs had an

AVE of more than 0.5. Finally, the discriminant validity (Fornell-Lacker & HTMT) of the constructs was tested to spell out the uniqueness in the model as demonstrated in Tables 1 and 2. Table 1 represents the convergent validity of the variables of the study, which shows how closely the scale is related to other variables and other measures of the same construct.

Table 1: Convergent Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
CPB	0.900	0.902	0.918	0.528
CI	0.876	0.885	0.902	0.535
CP	0.921	0.971	0.929	0.626
CPR	0.869	0.875	0.897	0.522

Table 2 represents the discriminant validity of the study. Discriminant validity is demonstrated by evidence that measures of constructs theoretically should not be highly related to each other.

Table 2: Discriminant Validity

Fornell-Lacker Criterion				
	CPB	CI	CP	CPR
CPB	0.727			
CI	0.731	0.900		
CP	0.141	0.149	0.791	
CPR	0.879	0.723	0.124	0.960

Heterotrait - Monotrait Ratio (HTMT)

	CPB	CI	CP	CPR
CPB				
CI	0.654			
CP	0.134	0.146		
CPR	0.532	1.111	0.125	

Source: Field Survey, 2021

Assessing the Paths Model of the Study

The purpose of the study was to determine the effect of appraisive attitudes on citizens' participation behaviour at the sub-national electoral levels in Ghana, using the Cape Coast Metropolis as a case. The appraisive attitudes were measured in terms of policy responsiveness, performance and integrity. The path model in Figure 1 shows three direct paths from policy responsiveness, performance and integrity to citizens' participation behaviour. These paths represent hypotheses 1, 2 and 3. The direct effect showed that policy responsiveness, performance and integrity accounted for 81.3 per cent of the variation in citizens' participation behaviour. Again, Table 3 displayed the structural model results for hypotheses 1, 2 and 3.

Table 3: Structural Model Results for Hypotheses 1, 2 and 3

	Path	T Statistics	R²	Adjusted R²	Q²	P-Value	F²
CPB			0.813	0.811	0.418		
CPR	0.204	2.229				0.026	0.017
CP	0.010	2.145				0.032	0.001
CI	0.703	3.432				0.001	0.207

Source: Field survey (2021)

Figure 1 shows the various indicator loadings of the constructs and why it necessitated for such a construct to be maintained. All indicators above 0.6 are considered to be good indicators of the measure of the model (Hair et al., 2019)

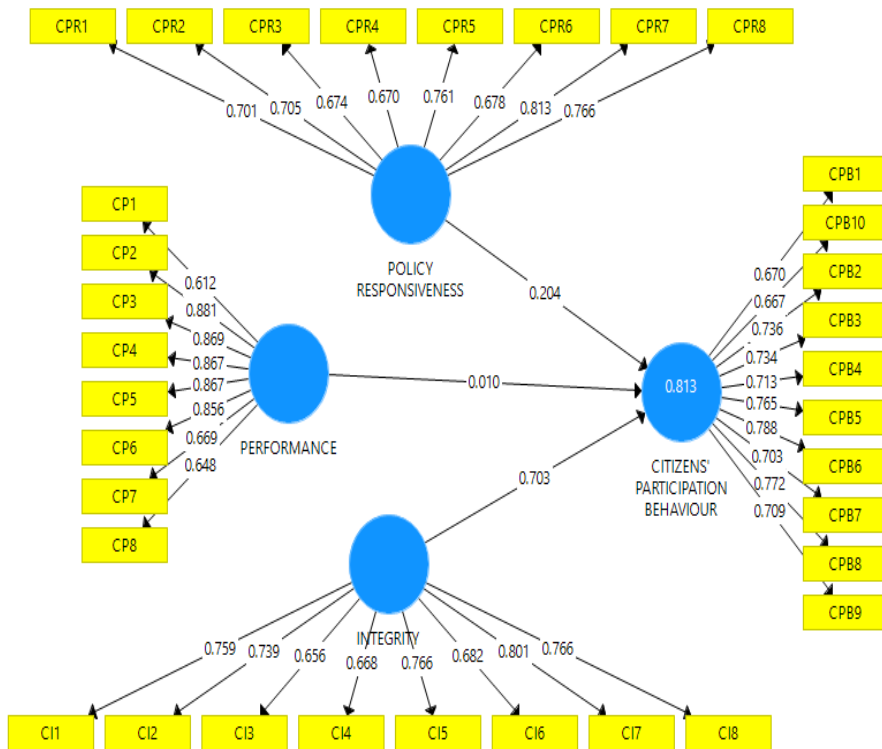


Figure 1: Outer and Inner Model Results
Source: Field survey (2021)

Research Objective One

The first objective of this study sought to determine the effects of candidates' policy responsiveness on citizens' participation behaviour within the Cape Coast Metropolis. The objective was tested as part of the entire model, representing the direct path from policy responsiveness to citizens' participation behaviour. Thus, it was hypothesised:

H1: Evaluations of candidates' policy responsiveness has a significant positive effect on citizens' participation behaviour

Based on the path estimation, the results of the PLS-SEM showed that policy responsiveness had a significant positive effect on citizens' participation behaviour ($\beta = 0.204$, $p < 0.05$; Table 3, Figure 1). The results show that the degree of congruence between candidate agenda and the voters' needs within the Cape

Coast Metropolis is a key determinant of citizens' participation behaviour. Comparatively, policy responsiveness (0.204) shows the second larger effect on citizens' participation behaviour among the three appraisive attitudes. The results also show that policy responsiveness has a small effect (0.017) on citizens' participation behaviour, based on the criteria of Hair et al. (2019). Therefore, based on the direction and the significance of the path between policy responsiveness and citizens' participation behaviour, the study supports the assertion that policy responsiveness has a positive effect on citizens' participation behaviour.

Based on the fact that the p-value is <0.05 , the study supports the hypothesis that *H1: Evaluations of candidates' policy responsiveness has a significant positive effect on citizens' participation behaviour*

The results showed that the above attitude (policy responsiveness) of the candidate has an impact on the voters (delegates) in the Cape Coast Metropolis. A summary of the decision concerning objective one is presented in Table 4. The findings of this objective are supported by the rational choice theory. Based on the principle of rationality, voters tend to appraise the expectations of future performance of both incumbent candidates and their challengers through the proposed policies based on their self-interestedness and need to satisfy their needs (Key, 2014). This is in line with the findings of Ordeshook and Zeng (2017), who concluded that there was a positive effect of policy responsiveness on citizens' participation behaviour in terms of voting decisions.

Table 4: Summary of Objective 1

Hypothesis	Beta	t-value	Decision
CPR-CPB	0.204	2.229	Supported

Source: Field survey (2021)

Similarly, Tomz and Houweling (2018) concluded in their study that voters vote for the candidates whose policy positions are closest to their policy preferences and that they focus on the policies which they believe a candidate can deliver more than the policy positions that the candidates espouse.

Research Objective Two

The second objective of this study sought to establish the effects of candidates' performance on citizens' participation behaviour within the Cape Coast Metropolis. The objective was tested as part of the entire model, representing the direct path from performance to citizens' participation behaviour. Thus, it was hypothesised that:

H2: Appraisal of candidates' performance has a positive effect on citizens' participation

Based on the path estimation, the results of the PLS-SEM showed that performance had a significant positive effect on citizens' participation behaviour ($\beta = 0.010$, $p < 0.05$; Table 13, Figure 3). The results show that a candidate's performance (that is, the perceived ability to initiate and complete projects on time) within the Cape Coast Metropolis is a moderate determinant of citizens' participation behaviour. Comparatively, performance (0.010) shows the least large effect on citizens' participation behaviour among the three appraisive attitudes. The results also show that performance has a small effect (0.001) on citizens' participation behaviour, based on the criteria of Hair et al. (2019). Therefore, based on the direction and the significance of the path between performance and citizens' participation behaviour, the study supports the assertion that performance has a positive effect on citizens' participation behaviour. Because the p-value is < 0.05 , the study supports the hypothesis that: *H2: Appraisal of candidates' performance has a positive effect on citizens' participation behaviour*

The results showed that the performance appraisal of the candidate has an impact on the voters (delegates) in the Cape Coast Metropolis. A summary of the decision concerning objective two is presented in Table 5.

Table 5: Summary of Objective 2

Hypothesis	Beta	t-value	Decision
CP-CPB	0.010	2.145	Supported

Source: Field survey (2021)

This is supported by the findings of Geys (2006), who concluded that voters, based on the principle of rationality, evaluate past performance of incumbents, thus giving them a reason to either punish them by electing competitors or reward

them by giving them their votes. This implies that voters tend to punish incumbents who performed poorly and continue rewarding those that perform well. Thus, voters tend to evaluate candidates based on what they have achieved in their past occupations and hope that they will bring the same good performance when serving in electoral offices (Fiorina, 1981). This explains that Ghanaian voters are retrospective. As such, as perceptions of the government's general performance or handling of particular social and economic issues improve, so does the likelihood of incumbent support, and vice versa (Ellis, 2016).

Research Objective Three

The last objective of this study sought to examine the effects of candidates' integrity on citizens' participation behaviour within the Cape Coast Metropolis. The objective was tested as part of the entire model, representing the direct path from integrity to citizens' participation behaviour. Thus, it was hypothesised that:

H3: Examination of candidates' candidates' integrity has a positive effect on citizens' participation behaviour

Based on the path estimation, the results of the PLS-SEM showed that integrity had a significant positive effect on citizens' participation behaviour ($\beta = 0.703$, $p < 0.05$; Table 3, Figure 1). The results show that the perception of honesty and trustworthiness of the parliamentary candidate within the Cape Coast Metropolis is a key determinant of citizens' participation behaviour. Comparatively, integrity (0.703) shows the largest effect on citizens' participation behaviour among the three appraisive attitudes. The results also show that integrity has a moderate effect (0.207) on citizens' participation behaviour, based on the criteria of Hair et al. (2019). Therefore, based on the direction and the significance of the path between integrity and citizens' participation behaviour, the study supports the assertion that integrity has a positive effect on citizens' participation behaviour. With the p-value being < 0.05 , the study supports the hypothesis that:

H3: Examination of candidates' candidates' integrity has a positive effect on citizens' participation behaviour

The results showed that the integrity of the candidate has an impact on the voters (delegates) in the Cape Coast Metropolis. A summary of the decision for objective three is presented in Table 6.

Table 6: Summary of Objective 3

Hypothesis	Beta	t-value	Decision
CI-CPB	0.703	3.432	Supported

Source: Field survey (2021)

Discussion of Results

The general aim of this study was to examine the effect of appraisive attitudes on citizens' participation behaviour at the sub-national electoral levels in the Cape Coast Metropolis, Ghana. The findings of the study as showed in the results is such that voters are rational and hence evaluate the policy promises made by candidates and align themselves with politicians whose issue frames are of the closest proximity to theirs (Ntim, 2018; Lindberg & Morrison, 2019). This explains that voters in protecting their interest and the preference of their locality vote for the candidate(s) who promises radical reforms, especially in favour of those who are having pressing problems in their community, like the Cape Coast Metropolis (Mbote et. al., 2020).

This study shows that much credence should be given to the argument that policy issues determine and influence voters' decision in their citizen engagements. The idea here is that voters listen to the policy propositions of the candidates and measure these questions against the problems facing them and the metropolis. Accordingly, a candidate whose policy proposals indicate that they understand the problems facing the voters is elected over a candidate who proposes policy solutions for non-existing or non-pressing problems.

This is also in line with the theory of rationality, as introduced in the literature. With the rational choice theory, it was noted that people are intelligent actors who have the capability to take into account the cost and benefit of making a choice when it comes to choosing their policy makers in the context of election. They are often guided by a set of reasons that can help them in the future (Lupia, McCubbins & Popkin, 2000). This implies that rational people are expected to trade-off on some of their positions, beliefs and preference when given the chance

to select a policy maker (Tetlock, 2000). The theory also posits that people are generally self-interested actors, which means that people are inward looking and are primarily concerned with outcomes that work to their advantage. Thus, people usually seek to maximise the utility of the outcomes of their choices (Olson, 1989). In essence, in the context of this study, voters in the Cape Coast Metropolis would identify the prevalent problems in the metropolis and measure the candidates' ability to deliver on the proposed policies to solve those problems before voting.

The findings of this study are supported by the results of Bittner (2011), who saw that in the context of partisanship, the political party of the candidate might have predisposed the voter to evaluate the character of the party leader and candidate favourably. Strong (2015) gave support to the rational choice perspective of voting behaviour. He asserted that most voters will vote out incumbent parties and candidates if they have poor integrity in terms of honesty and trustworthiness (Strong, 2015). Bossuroy (2008) and Debrah (2015) all concluded that candidates' personality dimensions, such as competence, credibility and sincerity, are attributes that influence voters' choice of a political candidate before and during the election cycle.

Following this study's findings, it can be argued in the same way as Lindberg and Morrison, (2014), who argued that much of what we know about electoral and democratic political processes in established democracies may also apply to new democracies in Africa. This means voting for policy makers may no longer be based on socio-cultural identities, particularly in some regions, like the Central Region, which is considered as a swing electoral area. According to Adams and Agomor (2015), swing voters are characterized by a conscious evaluation of government and candidate performance, which is a sign of relatively 'mature' democratic voting behaviour. This is because, unlike the core voters, the swing voters do not have electoral loyalty to any candidate or political party. They are rational voters whose votes are not influenced by stable sociological factors, partisan affiliation, ethnicity, or non-evaluative factors, but rather are largely dependent on their own evaluations and judgements (Campbell, 2007; Kim, 2016).

Conclusion

This study has explored the most significant factors that influence voters' choice in Ghana. It has been found that all the three dimensions of appraisive attitudes (policy responsiveness, performance and integrity) used in this study have positive effects on citizen participation behaviour in the study area of the Cape Coast Metropolis in Ghana. The idea here is that the days when politicians can take their people for granted and assume that, based on their religion, clans or cultural identity, they would be voted to power are over.

Currently, it can be said that most Ghanaians have become astute voters, who consciously evaluate the conditions of their environment and the incumbents' integrity before and when making their voting choice. The idea here is that voters consider candidates of honesty who can deliver on the policies they promise in their manifestos as well as manage public resources with veracity so that resources go to intended purposes. A person evaluated as lacking integrity would be seen to be detrimental to the common societal interest and as such would lose citizens' votes. What needs to be remembered is that these days, the voters are mostly independent, devoid of characteristics that are likely to be strong predictors of voting behaviour other than the general interest of the community, like economic performance.

In conclusion, it can be argued that the fact that Ghanaian voters are becoming aware of the need to vote based on the good deeds of a candidate is a current phenomenon, which in the past would have been impossible. Overall, it is fair to say that Africans are coming of age and the days of choosing Africa policy makers based on socio-cultural and ethnic reasoning appear to be over. This assertion can be deduced from the evidence provided in this study where people now vote not based on ethnicity, but more on incumbents' performance, policy response to their needs and integrity.

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