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The influence of socio-demographic factors on the significance of heritage resources

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Abstract

Though several studies have assessed the significance of heritage resources, they are generally exotic relative to Africa with very few examining the roles of socio-demographic characteristics in the levels of significance residents attach to heritage resources. This study explores the intricate relationship between socio-demographic factors and the significance attached to heritage resources in Ghana's Upper East Region. By employing a mixed-methods approach, we uncover how variables such as age, gender, education, and religion influence perceptions of both tangible and intangible heritage. Our findings reveal that tangible heritage, like architecture and agriculture, is often valued more highly than intangible heritage, such as festivals and folklore. It was also found that males generally viewed almost all heritage resources as more significant compared to females, except traditional architecture which was perceived as more significant by a larger proportion of females. Furthermore, education showed a negative correlation with the significance of tangible heritage resources while the elderly were more likely to have a positive perception of heritage resources than the youth. These disparities underscore a need for targeted conservation strategies that consider community-specific socio-demographic dynamics. The study's insights aim to inform sustainable heritage tourism development, ensuring that heritage resources are preserved and leveraged for economic and social benefits. Through this research, we contribute to the broader discourse on heritage conservation and tourism sustainability, advocating for a nuanced understanding of local contexts to foster inclusive and effective heritage management.

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Introduction

According to the International Council on Monuments and Sites (ICOMOS), heritage which includes living traditions, customs practiced, actual places, entities, or any artistic manifestations and values also indicates a community lifestyle that is developed and transferred from one generation to another (ICOMOS, 2002). While Nilson and Thorell (2018) contend heritage is largely a legacy, a symbol and representation of past generations that must be kept for the future, others see it as a reflection of human accomplishments and important past events that are kept for the benefit of both present and future generations (Oladeji & Akinrinola, 2010; Scheld et al., 2014). To George (2010), heritage simply reflects the connections and interactions between the natural and cultural environments that are passed to future generations with minimal changes.

Primarily, heritage has been classified into two, namely the tangible and intangible. Tangible heritage includes things such as buildings and artifacts while the intangible can be seen as traditions, art forms, folklore, community practices, religious places, rituals, festivities as well as knowledge and skills for traditional craft production (UNESCO, 2003; Lenzerini, 2011). The benefits associated with these heritage resources are many. Generally, researchers have categorized heritage resources into four, namely, socio-cultural, economic, and political (Khakzad, 2015) as well as historic (Ezenagu, 2020). From the socio-cultural perspective, it is argued that heritage resources can be a catalyst for networking and sporting activities while the economic standpoint sees them as a set of assets meant for sustainable development of communities and capacity creations (Oladipo, 2021). For example, through tourism, heritage is a vehicle for social and economic development including poverty reduction (UNESCO, 2003; Sacco et al., 2013).

Given the important role heritage resources play in human development, many stakeholders emphasize their exploitation for improved livelihoods particularly through tourism development among others. Besides the role heritage plays regarding development, its ubiquitous nature in many Least Developing Countries provides a comparative advantage for heritage tourism development relative to the advanced world. For Africa in particular, the call on the continent to harness heritage resources for development during the 1995 Cairo Conference under the auspices of the United Nations World Trade Organization (UNWTO) and United Nations Educational Scientific and Cultural Organization (UNESCO) resulted in increased interests in heritage tourism development and the preservation of heritage (Teye et al., 2011). About half a decade earlier, Ghana's National Commission on Culture (NCC) also urged the mobilization of heritage resources for both human and material development including tourism (NCC, 2004). This call was probably made owing to the country's enormous heritage resources which include shrines, transatlantic slave trade relics, courtyards, beliefs, festivals, art and crafts, architecture, chiefdoms, and burial ceremonies. These resources are believed to be sufficient to support tourism development and reduce poverty (NCC, 2004; Ministry

of Tourism [MOT], 2013; Al-hasan et al., 2007). The conundrum is how to sustain or preserve them for the emerging tourism industry in the Upper East region.

Existing literature does not paint a good picture regarding human efforts in the preservation of heritage in the UER (Upper East Region). The MOT observes that the region abounds in diverse heritage resources, which are also characteristically rich in quality. Many of them are, however, highly under-developed, getting extinct and losing authenticity (MOT, 2013). This phenomenon could be attributed to inadequate attention to such resources due to the significance that people attach to them. However, this should not be the case as new uses of heritage resources are found with time. According to the Ghana News Agency (2019) the booming basketry industry whose raw materials (vetiver grass) hitherto were abundant in the Upper East Region, are now sourced from southern Ghana.

The increasing socio-cultural and economic usefulness of heritage resources in modern development cannot be underestimated. Thus, the need to protect heritage resources has become imperative resulting in studies about its conservation (Sinha et al., 2019; Keitumetse, 2014; Oladeji et al., 2022; Zancheti et al., 2009). It is argued that residents' willingness to conserve heritage resources depends on the significance they attach to them (Frempong, 2008; Keitumetse, 2014). Although several studies have also assessed the significance of heritage resources, they have focused on non-Africa contexts with a few examining the roles of socio-demographic characteristics on the levels of significance residents attach to heritage resources (Van Leeuwen et al., 2013; Spennemann, 2003; UNESCO, 2005; Wechtunyagul, 2008). Such studies have not produced a uniform pattern regarding the roles of socio-demographic factors and failed to discuss the implications of such results on heritage conservation and tourism sustainability. This study, thus, attempts to fill this gap and contribute to the discourse in the Upper East region of Ghana.

Literature review

The roles of local communities in the management and conservation of heritage resources and their values have received increased global attention in recent times. In the last two decades, efforts have been made to find the best approaches for community protection or preservation of heritage resources (Ronchi, 2020; Yung & Chan, 2011). This approach reflects a paradigm shift from place-based conservation (i.e., only tangible heritage) to more people-centered conservation (intangible cultural heritage) that reflects the population (Ronchi, 2020; Yung & Chan, 2011).

Furthermore, other authors have asserted that the approach is the best way to achieve cultural and social sustainability in heritage management (Giliberto & Labadi, 2022; Labadi, 2016; Mensah, 2019). While Baycan and Girard (2011) assert that local perspectives further amplify our recent understanding of how heritage resources contribute to both community and national development, Chan (2016) believes it also ensures the inclusion of local opinions in conservation decision-making.

Globally, most academic studies on heritage conservation focus on local attitudes towards conservation and their practical participation (Sinha et al., 2019; Oladeji et al., 2022; Zancheti et al., 2009). Keitumetse (2014) argued that the significance people attach to heritage can better explain their attitudes towards conservation. According to Keitumetse (2014), heritage significance stimulates the idea of conservation and people conserve what is most valuable to them. In the views of other authors, the significance of heritage serves as an indirect measure of local attitudes towards conservation, as people are unlikely to protect, care or revive them unless they understand why they are important (Ngozi & Tabitha, 2014; Stephenson et al., 2004). Therefore, unravelling heritage significance can serve as guiding principles to determine 'what' and 'how' communities want their heritage to be conserved. Despite this view, not much research has been devoted to such a theme, especially in Africa (Spennemann, 2003; Van Leeuwen et al., 2013). Worse of all, efforts have hardly been made to draw lessons to ensure sustainable heritage and tourism since such findings can help shape policies to guide conservation and sustain tourism.

According to Mensah (2022), values are very important in heritage conservation and management since they form an integral part of the philosophy of life, as they are the ingredients used in the assessment of heritage significance. Obtaining significance first requires the identification of heritage attributes including their aesthetic qualities, architectural uses, historical functions, scientific importance, social or any other benefit to humans, past or present. In many instances, the determination of heritage significance is done through rating and costing methods (Van Leeuwen et al., 2013). Heritage significance helps heritage-related institutions and managers devise specific educational messages to raise public awareness about the importance of heritage resources (Cater & Bramley, 2002). Also, it helps in prioritization when it comes to allocation of limited conservation funds (Spennemann, 2003). The significance individual residents of a community attach to their heritage resources can be influenced by a complex interplay of factors such as the exploitation of the resource for economic benefits including tourism and socio-demographic factors (i.e., age, gender, education, income, ethnicity, and place of residence) (Van Leeuwen et al., 2013; Bao et al., 2006; Spennemann, 2003; UNESCO, 2005; Wechtunyagul, 2008). Notwithstanding this, previous studies have not produced a uniform pattern of results for each socio-demographic variable. Rather variations exist in terms of space and the types of heritage resources under consideration. Several studies have found that gender plays a role in heritage significance but with mixed results (Van Leeuwen et al., 2013; Wechtunyagul, 2008; UNESCO, 2005). In many instances, more males tended to have a greater interest in heritage resources and therefore attach higher levels of significance to them compared to females (Wechtunyagul, 2008; UNESCO, 2005). Such dominance of males in assigning high significance to tangible heritage may be due to the practice of patriarchal systems, and the reverse is the case for females when it comes to intangible heritage resources like dance. In the UNESCO's study in South Moravia and the Zlin districts of Czech Republic, it was found that more males

valued dance than females (UNSECO, 2005). On the contrary, research conducted in an urban setting of Amsterdam found that more females than males attached higher levels of significance to tangible cultural resources like architecture, museums, and urban landscapes (Van Leeuwen et al., 2013). Age can also influence the significance people attach to heritage resources. Examining its influence, some authors found that older individuals, compared to youth, often assign higher levels of significance to heritage resources perhaps due to their personal experiences and memories associated with historical events or cultural traditions (Wechtunyagul, 2008).

The results of a study by Van Leeuwen et al. (2013) in Amsterdam also showed that the elderly were more likely to attach higher significance to tangible heritage (i.e., architecture, monuments, and urban landscape) while the youth did the same for intangible resources (i.e., cultural events, traditions, and local customs). Higher levels of education can lead to a deeper appreciation, as it equips individuals with the knowledge and awareness necessary to understand the historical and cultural importance of heritage resources. Findings of some studies suggest that higher levels of education result in residents assigning higher levels of significance. In the Micronesian Island of Thailand, for example, more teachers perceived wetlands as significant compared to college students (Spennemann, 2003). In a related study in Amsterdam, Van Leeuwen et al. (2013) discovered that respondents with higher levels of education placed higher ratings on specific tangible heritage resources like architecture, museums monuments, and urban landscapes while the younger locals tended to appreciate the intangible resources (i.e., cultural events, traditions, local customs, and knowledge).

Theoretical framework for heritage significance

Cater and Bramley (2002) designed a model to explain the derivation of heritage significance. The model is illustrated in Figure 1 which provides one of the clearest conceptualizations of heritage significance. It depicts five types of heritage resources (i.e., geophysical, biological, cultural/historic, aesthetic, and recreational) and indicates that each has both intrinsic and extrinsic values. Intrinsic values inherently exist in a resource and do not require modifications to be recognized and so can be objectively assessed and so the significance level often attributed to them gain widespread acceptance.

Extrinsic qualities refer to aesthetics, recreational and cultural uses that require human perception and modification before values of such resources can be realised. Such values are determined based on personal, social, and cultural considerations and so are subjective. Therefore, the significance level is attributed to extrinsic values based on indigenous community's spiritual link to a resource which often requires special consideration. After value identification, significance levels are ascribed to them thus providing decision-making directions where conservation overrides exploitation just as preference for renewable resource exploitation overrides non-renewable ones (Bramley & Cater, 2002). On this basis, an assessment procedure that requires local people to rate

the significance of heritage, taking into consideration all the values of a particular resource, is adopted and modified for this study as indicated in Figure 1. The weakness found in the model is that it omits mediating variables such as socio-demographic factors whose differences can determine the significance people attach to their heritage resources. Our study proposes in the modified model that the significance levels people attach to heritage resources are indirect determinants of people's conservation attitudes and consequently can indicate the future sustainability of the heritage and tourism industries.

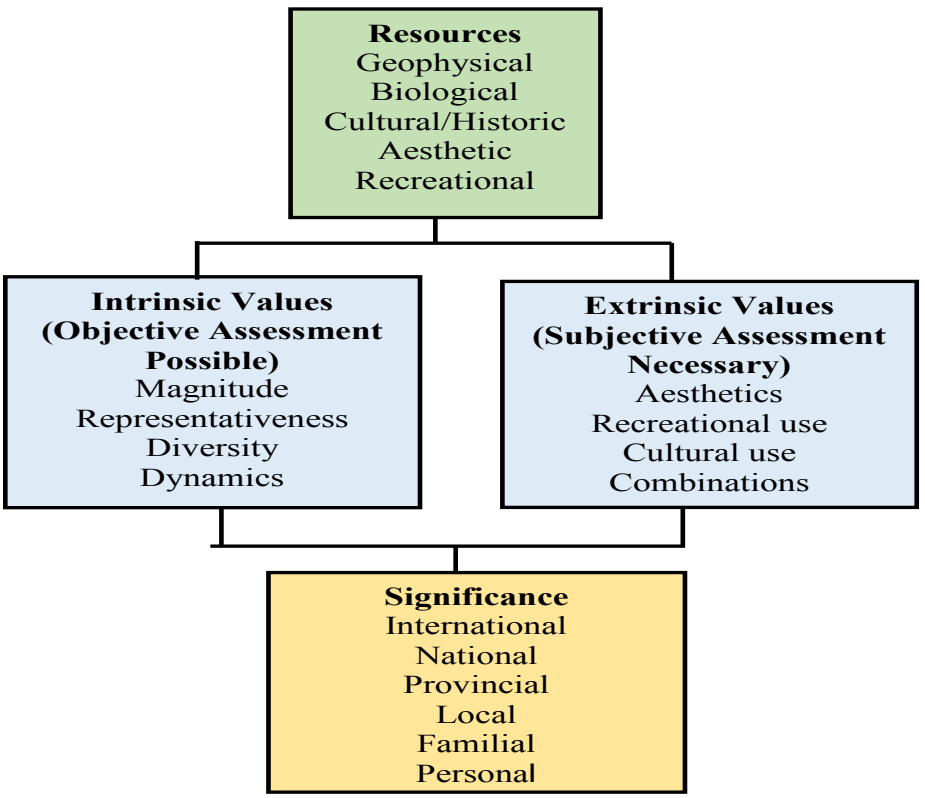

Figure 1: Assessing resource significance (Cater & Bramley, 2002).

Methods

Study setting

The Upper East Region has a land area of 8,842 sq. km estimated to be 4% of Ghana's total land area (GSS, 2021). The region falls within longitude 0° and 1°W and latitudes 10° 30'N and 11°N in the Guinea and Sudan Savannah Grasslands. It is drained largely by the White Volta, Red Volta, and the Sissili River (Yiran & Stringer, 2016). There are two major seasons, namely, the rainy season which starts in May and ends in early October, and the dry season which starts in October and ends in May. The annual rainfall for the

region is about 1,000 mm while temperatures range from 13.3°C to 41°C (Issahaku et al., 2016).

The climate and type of vegetation influence the nature of the landscape and therefore dictate the character of some natural resources of touristic value. Nearly 80% of the youthful population of the region participate in agriculture-related activities which are largely rain-fed (GSS, 2015). According to Yiran and Stringer (2016), the agricultural sector has suffered losses over the years due to climate variability and change. As a result, alternative livelihood sources such as tourism ought to be explored. Some notable tourism destinations in UER are the Paga Crocodile Pond, the Pikowro Slave Camp, the Tengzug Shrine, and the Sirigu Women Pottery and Art. These tourism sites provide employment and revenue for numerous households, particularly those who are disadvantaged (Abdul-Kadri et al., 2022).

Four communities in the region, Tengzuk, Gunwoku, Zenga, and Fiisa were purposively selected for the study. These communities were selected as they are considered active tourism sites in the region. However, other sites at the Eastern part especially the Bawku area were left out due to on-going ethnic conflict.

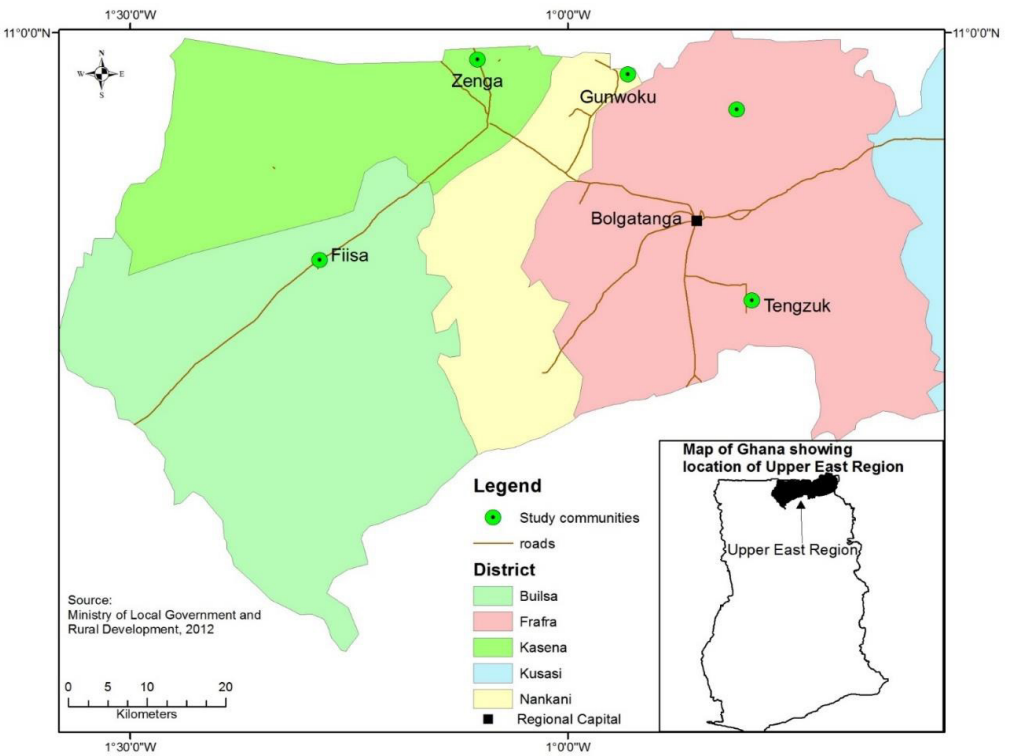

Figure 2: Map of studied communities

Research design and sampling techniques

The study adopted a mixed-methods approach based on pragmatic research underpinning (Samuel et al., 2024). Data was gathered using questionnaires and Focused Group Discussions (FGDs). With questionnaires, data was collected from selected household members aged 18 years and above in the study area. The specific information collected from households was on socio-demographic characteristics of respondents and the levels of significance they attach to selected heritage resources in the Upper East Region of Ghana. A sample of 400 hundred household respondents was derived using Eq. 1 adopted from Fisher and Fielder (1998).

$$n = \frac{z^2 pq}{e^2} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots Eq.1$$

where n is the desired sample, z is the standard normal deviation, often set at 1.96 and corresponds to a 95% confidence level, p is the proportion (i.e., 0.52) in the target population estimated to be above 18 years; q = 1-p (i.e., 0.48) and d is the degree of accuracy desired (usually set at 0.05) (Yakholmes et al., 2009). The total household sample was proportionally divided among the four communities according to their respective adult populations, but it was later adjusted to bridge the marked differences among them. As a result, out of the total 400 expected sample sizes were Tenzug (120), Zenga (66), Fiisa (64), and Gunwuko (150).

Research respondents were sampled randomly. In sampling, a list of numbered houses was obtained from the District Assembly representatives and community leaders. A simple random sampling was used to select household members by research assistants in each study community.

Secondly, purposive sampling was used to select focus group discussants in the communities. This is a qualitative data-gathering technique that requires group discussions on specific issues and is often moderated by a researcher (Bell et al., 2022; Teye, 2012). According to Conradson (2005), the method possesses the advantage of blending different opinions of discussants to enrich research data. This method further helps to explore individual viewpoints and to build consensus about emerging differences (Heiskanen et al., 2008). With the FGDs, male and female leaders were consulted to help select participants from different sections and associations. A total of eight FGDs were held for the study. Two FGDs were organized (i.e., one male and one female) in each community. The gender separation was due to male dominance in patriarchal societies which make females sometimes uncomfortable in group discussions (Teye, 2008). Each focus group was made up of 8 people as studies have suggested a small number provides a conducive atmosphere for fruitful discussions (Yiran & Stringer, 2016).

Selection of heritage resources

Eleven tangible and intangible heritage resources were selected for the study. The decision to focus on those heritage resources was arrived at based on residents' views on their relevance relative to others. Before the study design, ten opinion leaders in each of the four communities were consulted to state and rank heritage resources that were important to the community on a scale of one to 10. The heritage resources that had average scores of 5 and above were selected.

Data collection

The study used questionnaires that comprised both closed and open-ended questions and were administered to 400 respondents. First, respondents answered questions regarding their socio-demographic details. They were also required to rate the significance of each heritage resource based on its intrinsic and extrinsic values. In addition, they responded to open-ended questions to enable further explanations of certain issues. The questionnaires were pretested to ensure consistent wording formatting, and alignment with study questions and objectives. Discussion schedules were used in focus group discussions to ascertain community views on the relationship between socio-demographic variables and the levels of significance people attach to individual heritage resources. Though focus group discussions were prone to the interviewer's personal bias, they had the advantage of permitting greater depth and probing to provide explanations regarding the linkage between socio-demographic variables, and the significance attached to heritage resources. Although FGDs are prone to bias, they allow for deeper probing to give explanations regarding the linkage between the dependent and independent variables (Teye, 2008)

Data processing and analysis

Quantitative data were entered into the Statistical Package for Social Sciences (SPSS) to generate percentages and cross tabulations to illustrate the significance attached to heritage resources. ANOVA and t-test were used to determine existing relationships between socio-demographic characteristics on one hand, and the significance of heritage resources. For purposes of analysis with socio-demographic variables, the Likert scale data was regrouped into "Significant", "Neutral" and "Insignificant". The t-test focused on variables with two categories. A p-value less than or equal to 0.05 means there is a significant difference. The presentations and discussions included relevant quotations from FGDs and open-ended questions. Triangulation was also done to ensure the overall validity and reliability of the study (Bell et al., 2022).

Findings

Significance of heritage resources

The significance of heritage resources is an indirect measure of people's attitudes towards their conservation. Such data is very vital for policymakers as well as heritage resource and tourism managers in decision-making. Generally, the results revealed that the significance of individual heritage resources differed, were averagely rated and that tangible resources were rated higher than the intangible ones. This finding is corroborated by a key informant at Gunwoku;

> *"The practical benefits of tangible heritage in terms of livelihoods and religion far outstripped those of intangible resources"* (54 years old, male).

During an FGD in Tenzug, a participant said:

> *"Many people do not see heritage resources as so important because they do not solely depend on them for livelihoods."*

Socio-demographic characteristics and heritage significance

People's socio-demographic variables have an influence on how they perceive and attach significance to heritage resources. In this section the influence of gender, age, religious beliefs and education backgrounds of respondents on the significance they attach to heritage resources are presented.

Gender and significance of heritage resources

The findings revealed that more males viewed nearly all heritage resources as significant compared to females, except traditional architecture where a greater proportion of the latter perceived it as more significant. For instance, the minimum percentage of males who view heritage resources as significant ranged from nearly 38% to 61%. while the females ranged between 25% to 56%. it was also found that more females tended to be neutral about the significance of heritage resources than males except inherited landscapes.

When asked which heritage resources females mostly value, over eighty percent of respondents mentioned traditional architecture. An interviewee at Gunwoku explained that: *"Females attached greater importance to architecture because our culture says the house is for women. It is also because, after construction, the daily maintenance of the structure and the floor are duties for the woman"* (53 years old, female).

In the focus group discussion, participants generally agreed that almost all natural and cultural properties of the communities were either for males or were in their custody for families. To determine whether the observations made between the males and females are statistically different, an independent sample, t-tests was performed. The results showed that there are significant ($p < .001$) differences among all domains for males

and females (Table 4). Gender can be said to be related to the importance attached to heritage resources as in Table 4: T-Test for gender. These findings highlight the need to account for gender differences when studying the value placed on heritage resources. They suggest that efforts to preserve and promote these resources should consider the distinct roles and responsibilities of men and women within their communities.

Table 1: Test Statistics for the importance of heritage resources based on gender

Resources	t-test value	df	Sig.	Mean	Conf (95%)	
					Lower	Upper
Architecture	66.872	399	<.001	3.42	3.32	3.52
Agriculture	50.737	399	<.001	2.82	2.71	2.93
Art & Craft	63.620	399	<.001	3.39	3.29	3.49
Shrines	56.732	399	<.001	3.17	3.06	3.28
Landscapes	47.489	399	<.001	2.83	2.72	2.95
Festivals	66.081	399	<.001	3.69	3.58	3.79
Worship	53.374	399	<.001	3.08	2.96	3.19
Burial	54.720	399	<.001	2.74	2.64	2.84
Music & dance	64.235	399	<.001	3.43	3.32	3.53
Folk lore	65.345	399	<.001	3.38	3.27	3.48
Political	57.013	399	<.001	3.14	3.03	3.25

Age and significance of heritage resources

For purposes of this study, the ages of respondents are grouped into five: ≤ 29, 30-39, 40-49, 50-59 and 60+. Table 5 presents the importance of heritage resources to residents stratified by age group of respondents. The results showed that more elderly persons viewed most heritage resources as significant compared to the youth. The results, however, did not indicate that as ages increased levels of significance attached to heritage resources also increased. For focus group discussions, it was generally agreed that older persons besides having more affection for heritage resources and knowing the actual traditional values of heritage resources also attached higher levels of significance compared to the younger generations. According to one discussant, more elderly persons, than the youth, viewed the elements of heritage as important.

> Another respondent at Fiisa noted that: *"It is the old people especially males who see their forefathers' things as important. They are nothing to the young people today"* (65 years old).

Another person intimated that the older generations considered heritage resources more significant compared to the youth based on their cultural orientations, especially religion. *"The relatively lower importance of heritage resources among the youth was due to lack of interest in many traditional activities and heritage resources"* (A male Discussant at Tengzuk).

At Zenga, a female discussant also stated that: *"Many of the youth do not consider heritage resources as important because of their perceptions that heritage items represent backwardness and not modern".*

An example to buttress this view was captured during the FGDs in the Tengzug community: *"Can you imagine that even manufacturing of straw and leather products which have markets locally and internationally is done by the middle-aged to elderly people?"* (59 years old).

The ANOVA test, however, only showed significant differences among age groups for art and crafts (.000), festivals (.000) and folklores (p <.001) as in Table 6.

Table 2: ANOVA Test for Age

Resources	Sum of Squares	df	Mean Square	F	Sig.
Architecture	4.354	4	1.089	.983	.417
Agric.	8.044	4	2.011	1.968	.099
Art & Craft	23.626	4	5.906	5.347	<.001
Shrines	9.660	4	2.415	1.942	.103
Landscapes	5.679	4	1.420	1.405	.231
Festivals	40.456	4	10.114	8.324	<.001
Worship	7.271	4	1.818	1.450	.217
Burial	.093	4	.023	.021	.999
Music & dance	7.921	4	1.980	2.144	.075
Folk lore	52.889	4	13.222	13.314	<.001
Political	12.152	4	3.038	2.152	.074

Religion and significance of heritage

The study revealed that over 50% of the traditionalists perceived traditional architecture, folklore and political systems as significant as compared to the more than the 60-year-olds who also perceived the rest of the other resources as significant. For Muslims, about 50% of them perceived agriculture and inherited landscape as significant, whilst a third or less

view the rest of the resources as significant. Forty percent of Christians viewed traditional agriculture and inherited landscape as significant, with less than a third perceiving other resources as significant. In the focus group discussions, a participant at Zenga said, "*The traditionalists who are largely illiterates are those who mostly enjoy religious and economic values/benefits of our heritage resources and therefore attach higher levels of significance to them"*. Even though this respondent attributes the importance traditionalists attach to heritage resources to education, those people do so because the resources not only provide economic benefits but also sociocultural benefits as they promote and preserve their culture.

This is vividly echoed in a statement by a respondent at Tengzug "*One reason why traditionalists attach higher significance to traditional heritage resources is that the resources are intertwined with their beliefs"*. Another reason why traditionalists perceived heritage resources as important compared to respondents of other faiths was that traditionalists do not have modern jobs and so they are more dependent on local resources for livelihoods and cultural needs. Christians and Muslims on the other hand attach less importance to heritage resources. In explaining why both Christians and Muslims generally perceive the heritage resources as less significant, a male in-depth interviewee at Guwongu said *"Muslims are not too strict like protestant Christians who do not value anything about our heritage. Christians see our heritage resources as evil because they see them as fetish and their bible abhor fetish things"*.

An ANOVA test indicated significant differences for all heritage resources ($p < .001$) as indicated in Table 3.

Table 3: ANOVA test for religion

Resources	Sum of Squares	df	Mean Square	F	Sig.
Architecture	43.554	2	21.777	21.711	<.001
Agric.	21.708	2	10.854	11.052	<.001
Art & Craft	84.491	2	42.246	44.671	<.001
Shrines	153.455	2	76.727	87.699	<.001
Landscapes	21.225	2	10.613	10.985	<.001
Festivals	180.143	2	90.072	105.099	<.001
Worship	286.458	2	143.229	263.470	<.001
Burial	108.900	2	54.450	63.948	<.001
Mus & dan	103.479	2	51.739	76.271	<.001
Folk lore	53.165	2	26.582	26.921	<.001
Political	37.958	2	18.979	14.164	<.001

Education and significance of heritage resources

To ascertain the influence of education on the significance as perceived by the respondents above, we divided education into four categories: no education, basic education (including Preschool, Primary, and Middle/Junior High School), Secondary/High School, and a category labelled as "all others" which includes individuals with Vocational/Technical/Commercial education and Post-secondary education such as trained teachers, nurses, agriculture officers, and tertiary graduates.

The study found that approximately 40% of individuals without formal education considered architecture, folklore, and political systems as important, while over 50% deemed the remaining factors significant (Table 9). During the in-depth interviews, most participants with "no" or little education were more likely to consider heritage resources as important compared to those with higher education. It was deduced from their statements that people with higher education did not derive many benefits from community heritage resources. A discussant at Tengzug noted that the situation could change if tourism is developed to make everyone feel the likely benefits of the resources. He said: *"If tourism is well developed, I think well-educated people will be the greatest beneficiaries since they have money to do a lot of things with creative ideas. With that, they would see heritage resources to be important to them"* (58 years old, male).

Among respondents with basic education, more than half identified agriculture and inherited landscape as important, while nearly 40% found the other factors significant (See Table 4). Around 40% of Secondary/High School graduates viewed agriculture, inherited landscape, burial systems, and political systems as important, with almost 30% considering the remaining factors significant. Lastly, about 30% of those in the "all others" category perceived all the resources as important. These findings highlight the diverse perceptions across different educational backgrounds and emphasize the need for a nuanced understanding of policymaking and planning (See Table 4). To determine whether there were significant relationships between respondents' level of education and the significance they attached to each resource, an ANOVA test revealed significant differences ($p < .001$) except political systems (.289) as shown in Table 10.

Table 4: ANOVA test for education

Variables	Squares	df	Mean	F	Sig.
Architecture	18.863	3	6.288	5.889	.001
Agric. Systems	39.715	3	13.238	14.075	<.001
Art and Craft	39.519	3	13.173	12.485	<.001
Shrines	29.865	3	9.955	8.362	<.001
Landscapes	58.206	3	19.402	22.137	<.001
Festivals	38.861	3	12.954	10.726	<.001
Worship system	64.480	3	21.493	19.579	<.001
Burial systems	33.094	3	11.031	10.611	<.001
Music and dance	46.806	3	15.602	18.957	<.001
Folk lore	28.163	3	9.388	8.917	<.001
Political systems	5.381	3	1.794	1.257	.289

Redesign of Cater and Bramely (2002) framework

From the findings, it is generally deduced that there are relationships between demographic factors and the levels of significance people attach to heritage resources. Though there is a paucity of studies on this theme, it is acknowledged that residents' socio-demographic characteristics occasion the level of heritage significance. However, a cursory study reveals some inconsistencies thus justifying community-specific studies. The broken arrows seek to draw possible implications on local attitudes towards heritage conservation and sustainability ascribed to heritage resources. A new frame using inputs from Cater and Bramley (2010) has been developed by adding socio-demographic factors, implications for attitudes, and sustainable tourism.

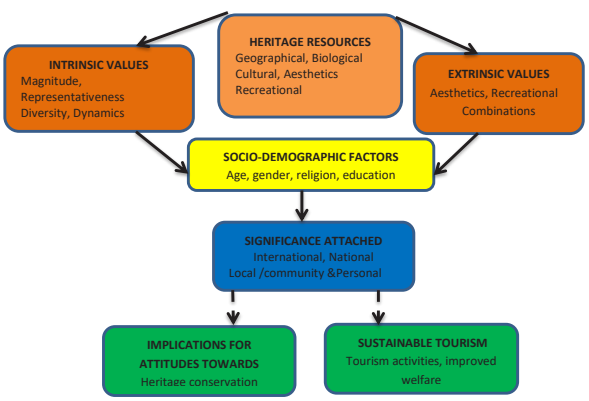

Figure 2: Modified Heritage significance Model including Socio-demographic variables.

Discussions

Generally, the significant levels of heritage resources in the region ranged from moderate to low ratings. The low ratings of heritage resources were attributed to the fast-declining beliefs about intangible resources as populations of non-traditional religions continue to increase while that of traditionalists diminish. It could also be due to decreasing dependence on such resources for livelihoods. This contrasts with other studies with very high ratings (Wechtunyagul, 2008, 2010). These results, it is argued, are attributable perhaps to the long-term presence of tourism, the use of experts as respondents, and the identification of new uses of heritage. However, tangible heritage resources received higher significance ratings compared to intangible resources, a finding akin to one in Thailand (Wechtunyagul, 2008) but in contrast with findings in Micronesia (Spennemann, 2003) where intangible heritage resources are valued higher.

The results of this study have far-reaching implications for both the heritage and tourism sectors in the UER of Ghana. If the significance assigned to heritage resources declines, residents' attitudes toward conservation will also be negative (Keitumetse, 2014). This situation has the potential to reduce the physical qualities and values of heritage resources, potentially leading to their extinction. The second perspective the study sought to examine was the influence of socio-demographic factors on levels of significance assigned to heritage resources. In terms of gender, it was found that more males viewed many of the heritage resources as significant compared to females, corroborating previous findings (UNESCO, 2005; Wetctunyagul, 2008). This result could be due to the patriarchal society in the UER where females are still considered subservient to males who are largely responsible for ownership, control, or custodians of heritage resources in the communities (Apusigah, 2004). With this, there is a greater potential for conservation, as decisions made by males are more likely to be accepted by all. This could provide a positive signal for the sustainability of both the heritage and tourism industries.

The results also indicate that older people saw heritage resources as significant compared to the youth. The findings support the works of previous authors in different jurisdictions (Catibog-Singha, 2008; Van Leeuwen et al., 2013). This was attributed to the older generations' deeper knowledge of heritage values, derived benefits, and perhaps religious orientations. As Kamamba (2003) explained, the adverse effects of globalization on the youth could lead to negative perceptions of both tangible and intangible heritage. A possible implication of this finding is that as most of the current elderly population passes away, fewer people may have interest in heritage and its conservation. This poses a danger to the sustainability of both the heritage and tourism industries, as the population of the youth continues to outstrip those in middle age and the elderly. The youth constitute a group that would be difficult to persuade to take part of heritage conservation.

The study also indicated that traditionalists viewed heritage resources as more significant, followed by Christians and Muslims respectively, for all resources except for

burial systems. Religious beliefs and practices play major roles in the significance attached to heritage resources. The traditionalists perceive the significance of these resources not only because they depend on them for their livelihoods but also for spiritual reasons. With increasing populations of non-traditional religions (Christians and Muslims) of about 47%, there is going to be a likelihood of increasing negative attitudes towards conservation.

This will have negative implications on heritage and tourism sustainability. There are also educational dimensions when it comes to the significance people attach to heritage resources. Generally, the results revealed that the higher the educational levels of people, the lower the levels of significance they attached to tangible heritage resources. This is sharply in contrast with previous studies that found education to have positive effects on the significance of heritage resources (Spennemann, 2003; Van Leeuwen, et al., 2013). One implication of the results is that educated people might not see the need to protect heritage resources, potentially negatively affecting tourism.

Conclusion

The research sought to analyse the influence of socio-demographic factors and the significance of heritage on local attitudes towards the use of heritage resources as tourism attractions. The findings suggest that the significance of heritage resources of the area is average with most of them being lowly rated. The significance attached to tangible resources is relatively higher than that of intangible ones and could be attributable to the roles of the former in providing livelihood activities. There are gender disparities in the significance attached to heritage resources as the number of males who perceived such resources as significant far outweighed the females. A greater proportion of the population of the elderly positively perceives heritage resources compared to the youth. People of the traditional faith attach higher importance to heritage than Christians and Muslims. The proportion of people who perceived heritage resources as significant decreased with increasing levels of education. The findings of the study affirm that socio-demographic factors do influence the levels of significance people attach to heritage resources. For this reason, the model of heritage significance determination by Cater and Bramley (2002) has been modified with the incorporation of socio-demographic variables as in Figure 3. The new model further suggests that the significance people attach to heritage has implications on their attitudes toward conservation and sustainable tourism. The findings present useful insights for authorities to design public education messages to create awareness on the importance of heritage resources and the need for their conservation. Further scientific studies should be conducted to explore the relationships between heritage significance and local attitudes towards its use for tourism development. Studies should explore how heritage significance affects local attitudes towards heritage conservation and sustainable tourism.

Disclosure statement

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