

A Pilot Study of a Subjective Happiness Index in Ghana

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Abstract

Happiness has emerged as a key indicator of societal well-being and development, complementing traditional economic measures such as Gross Domestic Product. This pilot study provides empirical evidence on the structure and domain composition of subjective happiness in Ghana, drawing on psychological, social, economic, environmental, and institutional dimensions. A cross-sectional survey was conducted involving 833 respondents from selected rural and urban households across six administrative regions of Ghana. The study employed the Happiness Alliance 62-item Happiness Index, which measures psychological well-being, healthcare access and quality, time balance, community belonging, social support, education and culture, environmental quality, governance, material well-being, and work satisfaction. Psychometric evaluation showed good measurement properties. The scale exhibited strong internal consistency (Cronbach's $\alpha = 0.824$), with domain-level alphas ranging from 0.753 to 0.930. Exploratory Factor Analysis using Principal Axis Factoring with Promax rotation supported a theory-driven ten-factor structure, explaining 67.8% of total variance ($KMO = 0.920$; Bartlett's $\chi^2(1326) = 26,160.648$, $p < 0.001$). Factor loadings ranged from approximately 0.32 to 0.97, with minimal cross-loadings, indicating satisfactory construct clarity. Overall happiness level was moderate (4.70/7.00), with regional and socio-demographic variations. Correlation analysis showed that all domains were positively associated with overall happiness. A multivariate regression diagnostic decomposition of the composite index showed that material well-being, governance, community belonging, and work satisfaction contributed most strongly to the composite happiness structure. At the same time, psychological well-being and access to healthcare also played meaningful roles. Governance and environmental quality recorded the lowest domain scores, highlighting institutional and ecological constraints on well-being.

Plain Language Summary

This study looked at how happy people in Ghana feel about their lives and the different experiences that shape that happiness. Happiness is not only about money or income. It also includes people's health, relationships, work, sense of community, trust in leaders, and the quality of their environment. Understanding these everyday experiences can help decision-makers design policies that improve people's quality of life.

Between February and March 2024, we surveyed 833 adults living in both urban and rural areas across six regions of Ghana. Participants were asked about various aspects of their lives, including their mental well-being, access to healthcare, support from family and friends, satisfaction with their work, sense of belonging in their community, and trust in government institutions. These responses were combined using a 62-question happiness survey that measures ten critical areas of life.

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The study first checked whether this survey worked well in the Ghanaian context. The results showed that the questionnaire was reliable and captured various aspects of people's lives clearly and consistently. We then examined how the different areas of life related to people's overall happiness scores.

The findings show that people's happiness in Ghana reflects a combination of economic conditions, social relationships, work experiences, and trust in public institutions. Areas such as financial security, quality of governance, feeling part of a community, and satisfaction with work were closely linked to overall happiness, while concerns about environmental quality and public services remained common.

Overall, this study provides a valuable starting point for understanding happiness and well-being in Ghana. It highlights the importance of looking beyond economic growth alone and considering people's lived experiences when designing policies and programs aimed at improving everyday life.

Keywords

subjective happiness, happiness index, Ghana, psychometric validation, exploratory factor analysis, subjective well-being

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1.0 Introduction

Ghana's constitutional framework articulates an aspiration for the well-being and prosperity of its population, irrespective of the political configurations or leadership transitions. This aspiration is evidenced in the preamble to the 1992 Constitution of Ghana, which affirms the "natural and inalienable right to establish a framework of government which shall secure for ourselves and posterity the blessings of liberty, equality of opportunity and prosperity" ([Republic of Ghana, 1992](#)). These principles: liberty, equality, and prosperity, align closely with contemporary multidimensional conceptions of happiness and subjective well-being, which extend beyond economic growth indicators to encompass lived experiences, social inclusion, and sustainable development outcomes ([Cloutier et al., 2014](#); [Ratele & Rustin, 2023](#)).

Globally, happiness and well-being have increasingly been recognised as legitimate policy objectives. In 2012, the United Nations General Assembly adopted Resolution 66/281, inaugurating the first World Happiness Report and designating 20th March as the International Day of Happiness, thereby formally acknowledging happiness and well-being as universal human aspirations ([Helliwell, Layard, & Sachs, 2012](#)). These developments have reinforced scholarly and policy interest in developing alternative, people-centred measures of progress that complement traditional macroeconomic indicators.

1.1 The Concept of Gross National Happiness Versus "Poor but Happy" Africans?

Discussions of happiness and well-being in Africa have frequently been framed by a contentious narrative that pits economic hardship against personal satisfaction. Across the continent's 54 countries, discussions of life expectancy, well-being, and happiness frequently suggest that African societies either experience persistently low levels of happiness or face challenges in sustaining well-being over the life course, irrespective of national economic performance as measured by Gross Domestic Product (GDP).

Some researchers have questioned the validity of the widely circulated notion that Africans are "poor but happy." While comparable claims are sometimes cautiously entertained in countries such as Bhutan, where Gross National Happiness Index (GNHI) has been institutionalised alongside GDP, African countries are often assessed through more sceptical and homogenising lenses ([Ura et al., 2012](#)). This framing has contributed to the portrayal of Africa as a region characterised by low subjective well-being. This position has been reinforced not only by individual scholars but also, implicitly, by influential international institutions.

For instance, [Bundervoet \(2012\)](#), writing for the World Bank, challenged the "*poor but happy*" assumption, arguing that empirical evidence does not support the claim that populations in Sub-Saharan Africa exhibit high levels of happiness. Based on cross-national data, Tom Bundervoet observed that, "by and large, people in Sub-Saharan Africa do not appear to be particularly happy." Similarly, [Kohnert \(2022\)](#) characterised the "poor but happy" thesis as paradoxical, noting that it does not hold in South Africa, one of the most unequal societies in the world. He suggested that happiness inequality may serve as a useful supplementary measure of broader social inequality in Africa.

Comparative evidence indicates that median life-satisfaction scores in Sub-Saharan Africa (approximately 4.4) are significantly lower than those reported in South America (6.7), the Eurozone (7.1), and North America (7.6). While poverty levels remain higher in Sub-Saharan Africa than in other regions, existing evidence suggests that material deprivation is unlikely to be associated with higher subjective well-being.

Nevertheless, the literature does not present a uniform picture. Drawing on longitudinal data from Ghana, [Atta-Ankomah et al. \(2024\)](#) identified key factors associated with happiness, including assets, social capital, health status, ethnicity, age, and place of residence. These findings complicate earlier claims of a pervasive “happiness deficit” in Africa advanced by [Moller et al. \(2017\)](#), who argued that happiness evaluations in Sub-Saharan Africa were consistently less positive than elsewhere.

More recent Africa-centred psychological perspectives have sought to contextualise these findings, emphasising the role of historical, cultural, and structural factors in shaping happiness ([Ratele & Rustin, 2023](#)). In Ghana, persistent infrastructural and governance challenges include transportation inefficiencies, healthcare system constraints, and inadequate sanitation in urban markets. These challenges may plausibly affect daily experiences and, by extension, happiness levels. Empirical studies have shown that poor sanitation infrastructure in low-income urban areas is associated with adverse health outcomes and reduced quality of life, with implications for psychological well-being and happiness ([Ababio & Lovatt, 2015](#); [Bose et al., 2024](#); [Norman et al., 2020](#); [Robb et al., 2017](#)).

1.2 The Concept of Gross National Happiness as Developed by Bhutan

The Gross National Happiness (GNH) framework developed by Bhutan represents one of the most prominent policy-oriented alternatives to GDP-centred development models. The Bhutanese approach conceptualises happiness and well-being as multidimensional, equitable, and policy-relevant, incorporating domains such as psychological well-being, health, education, community vitality, governance, and environmental sustainability ([OECD, 2024](#)).

Historically, Bhutan institutionalised GNH as a guiding development concept, establishing the Gross National Happiness Secretariat to ensure that national policies and development plans align with GNH principles, rather than prioritising Gross National Product (GNP) alone ([Musikanski et al., 2017](#); [Ura et al., 2012](#)). The Secretariat, chaired by the Prime Minister and comprising senior government officials, functions as a central coordinating body for integrating well-being considerations into governance.

Recent assessments by the GNH Centre for Bhutan and GNH Studies & Oxford Poverty and Human Development Initiative (OPHI) (2023) indicate incremental improvements in national happiness across several domains, including mental well-being, physical health, youth literacy, community participation, work-life balance, and satisfaction with government performance. These outcomes suggest that Bhutan’s policy emphasis on well-being has yielded measurable gains, although such findings remain context-specific and institutionally embedded. Meanwhile, researchers have raised methodological and conceptual questions regarding the measurement of happiness, including concerns about subjectivity, cultural comparability, and statistical robustness ([Becchetti et al., 2011](#)). These discussions highlight the importance of meticulous adaptation when applying or interpreting happiness-based indices beyond their original institutional and cultural settings. Consequently, the Bhutanese experience offers an important reference point, rather than a directly transferable model, for countries such as Ghana seeking to develop context-sensitive measures of subjective well-being.

2.0 Literature Review

The Gross National Happiness Index (GNHI) offers an alternative approach to measuring national well-being, growth and development, complementing the traditional reliance on Gross Domestic Product (GDP) as an indicator of a country’s success ([Alesina et al., 2004](#); [Binswanger, 2006](#); [Alkire, 2011](#); [Lang, 2012](#); [Happiness Alliance, 2014b](#); [Musikanski et al., 2017](#); [Centre for Bhutan and GNH Studies & Oxford Poverty and Human Development Initiative \[OPHI\], 2023](#)). Unlike GDP, which focuses primarily on economic output, the GNHI emphasises multidimensional aspects of human well-being, including social, psychological, environmental, and institutional conditions. Bhutan’s adoption of the GNH framework has demonstrated how alternative development metrics can be integrated into national planning and policy evaluation.

Despite the successes, Bhutan’s experience also highlights conceptual and practical challenges associated with happiness-based measures. [Namgay Tshering \(2025\)](#) enquired whether all Bhutanese citizens can be described as happy and clarified that GNH is not centred solely on individual happiness but rather on collective well-being, sustainability, and inclusivity. These challenges have prompted ongoing refinements to the framework, including greater emphasis on economic diversification, environmental sustainability, and governance quality. Such discussions illustrate the complexity of translating multidimensional concepts of happiness into empirical measures.

Beyond Bhutan, the use of happiness and well-being indicators has gained increasing attention in several high-income countries, such as Finland and the Netherlands, where they are employed to assess satisfaction with life and living conditions ([Bencsik, 2024](#); [Ilasco, 2022](#); [Ratele & Rustin, 2023](#)). Earlier research laid the groundwork for this shift by questioning the adequacy of income-based measures of progress ([Blanchflower & Oswald, 2004](#); [Cross, 1993](#); [Diener & Biswas-Diener, 2002](#); [Easterlin, 1974, 2001](#); [Happiness Alliance, 2011, 2014a, 2014b](#); [Ovaska & Takashima, 2006](#); [Schor, 1999](#)). The

observed disconnect between rising income levels and reported happiness, known as the Easterlin paradox, is a central theme in this literature.

Several studies have shown that although income growth contributes to material security, it does not necessarily translate into sustained happiness (Binswanger, 2006; Lang, 2012). Layard (2005) and Namgay Tshering (2025) argued that individual income, while relevant, is not the sole driver of overall happiness. Similarly, Bencsik (2024) examined the role of businesses and work environments in shaping community-level happiness, noting that increased stress, longer working hours, and reduced leisure time may offset income gains. These findings suggest that a balance between economic conditions and non-economic aspects of daily life, such as time use and social relationships, shapes happiness outcomes.

Furthermore, empirical data demonstrate that technological advancement and labour-saving tools, which are often associated with increased income, do not necessarily alleviate time pressures and stress (Lang, 2012). Instead, Graham et al. (2004) identified multidimensional factors including income, marital status, and educational attainment as key correlates of well-being, while cautioning that their relative importance varies across contexts. Keely (2005) also argued that while income growth is crucial for well-being in industrialised nations, this does not hold for developing countries, where sustained income growth may not translate into proportional increases in happiness beyond certain thresholds. This phenomenon is partly due to persistent social, infrastructural, and institutional challenges that affect daily life, regardless of individual purchasing power.

The relationship between income and happiness has also been examined through the lens of utility theory. Ferrer-i-Carbonell (2005) stated that while higher income allows individuals to reach higher indifference curves, the marginal utility of income diminishes over time. As a result, additional income may yield progressively smaller gains in subjective well-being (Easterlin, 1995, 2001). More recent studies suggest that the strength of the income-happiness association is influenced by income inequality, with a stronger association observed in contexts of greater inequality (Oishi et al., 2022).

Studies across different countries highlight how happiness and inequality are connected to specific situations. Alesina et al. (2004), analysing data from Europe and the United States, found that individuals are less likely to report being happy in societies with higher income inequality, even after controlling for individual income and personal characteristics. While the distributional effects of inequality vary across regions, the findings highlight the importance of social and institutional environments in shaping subjective well-being and happiness. In Sub-Saharan African contexts such as Ghana, Nigeria, and Kenya, persistent development challenges suggest that income growth alone may be insufficient to enhance population-level happiness.

Demographic factors have also been shown to relate systematically to happiness. A broad body of literature reports a relationship between age and happiness, often characterised by a U-shaped pattern over the life course (Bartram, 2021; Bittmann, 2021; Galambos et al., 2020; Jebb et al., 2018). Toshkov (2022) demonstrated that this relationship varies by income level and personal circumstances, with the U-shaped pattern more pronounced among middle-income groups and less evident among individuals at the top of the income distribution.

Drawing on this literature, the present study adopts a multidimensional perspective on happiness using the Happiness Alliance framework. Instead of making causal claims, the study examines the association between key life domains and overall happiness scores among Ghanaians. Specifically, the study explores how psychological, social, economic, environmental, and institutional domains relate to reported happiness, with the aim of providing exploratory, evidence-based insights to inform holistic well-being discussions and policy considerations in Ghana.

3.0 Method

3.1 Study Design and Context

This study employed a cross-sectional design to examine the multidimensional structure and correlates of subjective happiness in Ghana, consistent with the growing emphasis on well-being metrics as complements to economic measures such as Gross Domestic Product (GDP). Drawing on the internationally recognised Happiness Alliance Index, the study investigated the relationships between ten life domains and overall subjective happiness within a composite measurement framework. A structured 62-item questionnaire was developed, with each item grouped into domain-specific Likert-scaled statements assessing respondents' perceived life satisfaction and living conditions. Data collection took place between 1st February and 31st March 2024 using Kobo Toolbox, a mobile data collection platform suitable for low-connectivity settings. The final analytic sample comprised 833 respondents from both rural and urban households across Ghana, providing broad socio-demographic representation.

Table 1. Demographic Characteristics (n = 833)

	Frequency	Percent (%)	Valid percent (%)	Cumulative percent
Region				
Ashanti	363	43.6	43.6	43.6
Bono East	75	9	9	52.6
Eastern	196	23.5	23.5	76.1
Greater Accra	45	5.4	5.4	81.5
Oti	45	5.4	5.4	86.9
Volta	109	13.1	13.1	100
Age				
15-34 years	321	38.5	38.5	38.5
35-54 years	338	40.6	40.6	79.1
55-74 years	148	17.8	17.8	96.9
75 years and above	26	3.1	3.1	100
Gender				
Female	350	42	42	42
Male	483	58	58	100
Level of Education				
No response	1	0.1	0.1	0.1
None	160	19.2	19.2	19.3
Basic	192	23	23	42.3
Secondary	253	30.4	30.4	72.7
Tertiary	205	24.6	24.6	97.3
Higher	22	2.6	2.6	100
Employment Status				
Full-time employment	417	50.1	50.1	50.1
Part-time employment	96	11.5	11.5	61.6
Retired	39	4.7	4.7	66.3
Student	103	12.4	12.4	78.7
Unemployed	177	21.2	21.2	99.9
Annual Income				
Above GHS60000	9	1.1	1.1	1.1
GHS21000- GHS30000	151	18.1	18.1	19.2
GHS31000- GHS40000	63	7.6	7.6	26.8
GHS41000- GHS50000	39	4.7	4.7	31.5
GHS51000- GHS60000	26	3.1	3.1	34.6
Less than GHS 20,000	541	64.9	64.9	99.5
Marital Status				
Divorced	26	3.1	3.1	3.1
Married	431	51.7	51.7	54.9
Separated	22	2.6	2.6	57.5
Single	308	37	37	94.5
Widowed	46	5.5	5.5	100
Household Size				
1 person	110	13.2	13.2	13.2
2 people	80	9.6	9.6	9.6
3 people	134	16.1	16.1	16.1
4 people	157	18.8	18.8	18.8
5 people	125	15	15	15
6 or more people	225	27	27	27
Population Group				
Rural dweller	354	42.5	42.5	42.5
Urban dweller	479	57.5	57.5	100
Parental Status				
Caregiver	19	2.3	2.3	2.3
Expecting a child	22	2.6	2.6	4.9
Not a parent	294	35.3	35.3	40.2
Parent (mix)	402	48.3	48.3	88.5

(continued)

Table 1. (continued)

	Frequency	Percent (%)	Valid percent (%)	Cumulative percent
Single custodial parent	70	8.4	8.4	96.9
Single non-custodial parent	26	3.1	3.1	100
Homeownership				
I am a homeowner	248	29.8	29.8	29.8
I am a renter	310	37.2	37.2	67
I live with family or friends	265	31.8	31.8	98.8
Others	7	0.8	0.8	99.6
Disability				
I do not have a disability	799	95.9	95.9	95.9
I have a disability	34	4.1	4.1	100

3.2 Sampling

Data were initially targeted from 1,000 respondents across rural and urban communities in Ghana using non-probability convenience sampling, consistent with the exploratory and pilot nature of the study. Participants were sampled from six administrative regions: Ashanti, Bono East, Eastern, Greater Accra, Oti, and Volta Regions, selected to reflect geographic and socio-economic diversity. The sample demographics were diverse, including gender, educational attainment, age, employment, and marital status. Data from 167 respondents, or 16.7% of the intended sample, could not be collected due to financial constraints arising from the devaluation of the project's grant funds. Consequently, all analyses are based on responses from 833 participants. Given the use of non-probability convenience sampling and partial regional coverage, the findings are not intended to be nationally representative but should be interpreted as exploratory. The resulting sample size yields approximately 13.7 respondents per survey item (62 items), exceeding recommended thresholds for exploratory factor analysis (≥ 5 –10 participants per item) and supporting stable factor extraction and psychometric evaluation.

3.3 Instrumentation

The survey instrument was developed using established methodologies from the Happiness Alliance (2014b) of Bhutan and the Gross National Happiness (GNH) framework, particularly the Happiness Index methodology described by Musikanski et al. (2017). The instrument operationalized ten core domains of subjective well-being, namely: psychological well-being (P), health access and quality (H), time balance (T), community belonging (C), social support (S), education, arts and culture (Ed), environment (E), governance (G), material well-being (M), and work satisfaction (W) (Happiness Alliance, 2014b; Musikanski et al., 2017). A total of 62 items were generated and contextually adapted to the Ghanaian setting. Respondents rated each item on a 7-point Likert scale, from 1 (strongly disagree) to 7 (strongly agree), with higher scores indicating greater perceived happiness in each domain.

Table 2. Psychological Well-Being

Psychological well-being		Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
I am confident in my opinions, even if they are contrary to the general consensus.	Count	27	16	19	60	62	424	223
	Percent	3.2	1.9	2.3	7.2	7.4	50.9	26.8
Generally, I feel I am in charge of the situation in which I live.	Count	27	71	35	41	83	369	206
	Percent	3.2	8.5	4.2	4.9	10	44.3	24.7
People would describe me as someone who has positive relationship with others.	Count	1	13	21	50	85	415	246
	Percent	0.1	1.6	2.5	6	10.2	49.8	29.5
I have a purpose to achieve through my life.	Count	4	3	25	33	63	364	340
	Percent	0.5	0.4	3	4	7.6	43.7	40.8
I am pleased with how things have turned out in my life.	Count	25	103	58	52	123	286	184
	Percent	3	12.4	7	6.2	14.8	34.3	22.1

Table 3. Healthcare Access and Quality

Healthcare access and quality								
		Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
Currently, I do not suffer from any disease	Count	29	86	44	29	67	341	236
	Percent	3.5	10.3	5.3	3.5	8	40.9	28.3
I often get a health checkup	Count	69	131	79	57	93	261	141
	Percent	8.3	15.7	9.5	6.8	11.2	31.3	16.9
I have an excellent capacity to perform everyday activities	Count	18	56	76	40	89	271	277
	Percent	2.2	6.7	9.1	4.8	10.7	32.5	33.3
I have access to quality healthcare in my locality	Count	90	142	71	42	107	280	101
	Percent	10.8	17	8.5	5	12.8	33.6	12.1
Overall, I have good physical and mental health	Count	15	26	57	90	87	359	197
	Percent	1.8	3.1	6.8	10.8	10.4	43.1	23.6

3.4 Data Analysis

Data analysis proceeded in four stages, integrating psychometric validation and diagnostic inferential analysis. First, descriptive statistics were computed to summarise respondents' socio-demographic characteristics and domain-level distributions. Second, the Happiness Index was psychometrically evaluated. Internal consistency reliability was assessed using Cronbach's alpha coefficients for the overall scale and individual domains, with $\alpha \geq 0.70$ considered acceptable. Construct validity was examined through Exploratory Factor Analysis (EFA). Third, bivariate relationships between each happiness domain and the composite happiness score were examined using Pearson's product-moment correlation coefficients, to assess the strength and direction of the associations. The correlation coefficient was calculated using the standard formula. The formula for the calculation of the correlation coefficient (r) is given in Equation (1).

$$r_{XY} = \frac{\sum (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum (X_i - \bar{X})^2 \sum (Y_i - \bar{Y})^2}} \quad (1)$$

where X_i and Y_i are observed values representing scores on an individual domain and the composite happiness score, respectively.

Fourth, a multiple linear regression procedure was employed to decompose the composite Happiness Index and assess the relative contributions of individual domains to the overall happiness score. Because the domain variables are integral components of the composite index, the regression analysis was not intended to estimate independent causal determinants of happiness. Instead, the regression diagnostic was used to examine the internal structure and relative weighting of domains within the theoretically defined multidimensional happiness framework. All ten happiness domains were entered simultaneously into the regression model, specified as follows:

Table 4. Time Balance

Time balance								
		Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
I do not work beyond my work hours	Count	91	82	77	103	74	289	115
	Percent	10.9	9.8	9.2	12.4	8.9	34.7	13.8
I often spend some time out with friends/family	Count	61	51	56	56	75	356	172
	Percent	7.3	6.1	6.7	6.7	9	42.7	20.6
I often go on vacations	Count	185	168	72	75	69	175	86
	Percent	22.2	20.2	8.6	9	8.3	21	10.3
I am satisfied with my work arrangements	Count	45	94	67	128	141	279	75
	Percent	5.4	11.3	8	15.4	16.9	33.5	9
I do not think I get stressed in my work	Count	102	129	62	110	97	266	66
	Percent	12.2	15.5	7.4	13.2	11.6	31.9	7.9

Table 5. Sense of Belonging in Community

Sense of belonging in community		Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
I feel safe to walk around my community	Count	10	52	33	47	170	345	174
	Percent	1.2	6.2	4	5.6	20.4	41.4	20.9
I get involved in most local issues	Count	22	71	66	81	124	317	151
	Percent	2.6	8.5	7.9	9.7	14.9	38.1	18.1
People in my local community are very willing to help each other out	Count	8	55	67	64	212	278	146
	Percent	1	6.6	8	7.7	25.5	33.4	17.5
I trust my neighbors to look out for me and my property	Count	14	58	89	80	150	289	151
	Percent	1.7	7	10.7	9.6	18	34.7	18.1
Overall, I have a strong sense of belonging in my local community	Count	6	26	45	68	183	335	167
	Percent	0.7	3.1	5.4	8.2	22	40.2	20

$$\text{Happiness Score} = \alpha + \beta_P P + \beta_H H + \beta_T T + \beta_C C + \beta_S S + \beta_{Ed} Ed + \beta_M M + \beta_W W + \beta_E E + \beta_G G + \varepsilon \quad (2)$$

The specification in Equation (2) formally represents the weighting structure of the Happiness Index and does not imply causal independence between the domains and the composite score. Each coefficient reflects the relative contribution of the corresponding life domain within the index. Model fit was assessed using the coefficient of determination, as expressed in Equation (3).

$$R^2 = 1 - \frac{SS_{\text{residual}}}{SS_{\text{total}}} \quad (3)$$

Standard regression diagnostics were conducted to assess model adequacy, including evaluations of linearity, independence, residual normality, and multicollinearity using residual plots, variance inflation factors (VIFs), tolerance statistics, and condition indices. These diagnostics were used to confirm the model's internal coherence and stability, rather than to support causal inference. All analyses were conducted using IBM SPSS Statistics version 23.

3.5 Psychometric Validation

An Exploratory Factor Analysis (EFA) was conducted on the survey items to assess the underlying factor structure. Sampling adequacy was confirmed using the Kaiser-Meyer-Olkin (KMO) measure, and the suitability of the correlation matrix for

Table 6. Social Support

Social support		Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
My friends and family understand me as a person	Count	2	8	25	41	156	396	200
	Percent	0.2	1	3	4.9	18.7	47.5	24
I feel I am loved by my friends and family	Count	2	12	24	50	139	373	232
	Percent	0.2	1.4	2.9	6	16.7	44.8	27.9
I have friends and family who would go out of their way to help me in a crisis situation	Count	9	52	69	67	212	277	146
	Percent	1.1	6.2	8.3	8	25.5	33.3	17.5
I have friends and family that I can talk to without having to watch what I say	Count	36	101	100	82	136	221	155
	Percent	4.3	12.1	12	9.8	16.3	26.5	18.6
I have friends and family who appreciate me as a person	Count	2	4	16	47	135	381	243
	Percent	0.2	0.5	1.9	5.6	16.2	45.7	29.2

Table 7. Access to Education, Arts and Cultural Activities

Access to Education, Arts, and Cultural Activities			strongly disagree	disagree	somewhat disagree	neutral	somewhat agree	agree	strongly agree
I have the opportunity to access education	Count	125	70	62	73	97	248	156	
	Percent	15	8.4	7.4	8.8	11.6	29.8	18.7	
I am able to patronize various arts and cultural activities	Count	62	123	66	74	109	236	160	
	Percent	7.4	14.8	7.9	8.9	13.1	28.3	19.2	
I have knowledge on cultural diversity	Count	22	44	49	112	125	286	193	
	Percent	2.6	5.3	5.9	13.4	15	34.3	23.2	
I have good inter-personal relationship with people who have different cultural orientation	Count	8	29	36	86	141	326	205	
	Percent	1	3.5	4.3	10.3	16.9	39.1	24.6	
I have respect for people regardless of their cultural orientation	Count	3	16	24	58	135	372	224	
	Percent	0.4	1.9	2.9	7	16.2	44.7	26.9	

factor analysis was evaluated using Bartlett's Test of Sphericity. Principal Axis Factoring (PAF) was employed as the extraction method due to its suitability for identifying the latent constructs underlying observed variables. Promax oblique rotation with Kaiser Normalisation was applied, as the happiness domains were theoretically expected to be correlated rather than orthogonal. Factors were retained based on eigenvalues greater than one, inspection of the scree plot, and theoretical alignment with the ten-domain Happiness Alliance framework. Factor loadings below 0.30 were suppressed to enhance interpretability, and cross-loadings were examined to assess item clarity and domain coherence.

4.0 Results and Discussion

4.1 Descriptive Statistics

The survey included 833 respondents, covering both urban and rural families in Ghana. Participants were recruited from six administrative regions: Ashanti, Bono East, Eastern, Greater Accra, Oti, and Volta. This diversity reveals essential insights into regional and cultural differences in happiness levels and drivers. Understanding these baseline characteristics is critical for analysing how socio-economic and environmental factors influence subjective well-being in Ghana. [Table 1](#) provides detailed demographic characteristics.

Table 8. Environmental Quality of Life

Environmental quality of life			Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
My community is devoid of any form of pollution	Count	102	143	91	104	126	196	67	
	Percent	12.2	17.2	10.9	12.5	15.1	23.5	8	
My community is endowed with biodiversity	Count	130	142	77	100	121	200	62	
	Percent	15.6	17	9.2	12	14.5	24	7.4	
I do patronize eco-parks and gardens for leisure	Count	180	213	99	79	85	126	48	
	Percent	21.6	25.6	11.9	9.5	10.2	15.1	5.8	
Government laws and policies have reduced pollution in my community	Count	170	129	88	135	172	116	22	
	Percent	20.4	15.5	10.6	16.2	20.6	13.9	2.6	
Government initiatives have contributed to environmental conservation in my community	Count	170	129	88	135	172	116	22	
	Percent	20.4	15.5	10.6	16.2	20.6	13.9	2.6	

Table 9. Effective Governance

Effective governance			Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
The condition of democracy and rule of law in the country is stronger	Count	98	129	88	144	162	174	36	
	Percent	11.8	15.5	10.6	17.3	19.4	20.9	4.3	
The economic condition of the country is stronger	Count	162	178	82	105	98	164	41	
	Percent	19.4	21.4	9.8	12.6	11.8	19.7	4.9	
The government is able to control corruption and ensure that public resources are spent without corrupt practices	Count	277	178	100	107	94	59	17	
	Percent	33.3	21.4	12	12.8	11.3	7.1	2	
I have trust and confidence in the government	Count	183	136	79	133	123	130	49	
	Percent	22	16.3	9.5	16	14.8	15.6	5.9	
Overall, there is effective and efficient governance delivery of the country	Count	198	155	71	110	129	133	34	
	Percent	23.8	18.6	8.5	13.2	15.5	16	4.1	

Nearly half of the participants (43.6%) resided in the Ashanti Region, followed by the Eastern Region (23.5%) and the Volta Region (13.1%). Urban dwellers constituted a majority (57.5%), while rural participants accounted for 42.5%, ensuring a balance in perspectives between Ghana's urbanising and rural populations. The age distribution showed a predominance of adults aged 35–54 (40.6%), followed closely by younger adults aged 15–34 (38.5%). Older cohorts (55–74 years and 75+ years) were underrepresented, together accounting for about 21% of the sample. The gender distribution was slightly skewed, with males accounting for 58%, reflecting male overrepresentation in some surveyed regions.

Educational attainment varied significantly: 30.4% completed secondary education and 24.6% held tertiary qualifications. However, 19.2% reported no formal education, underscoring disparities in human capital development. Employment data showed that half of the respondents were in full-time work. At the same time, one in five were unemployed, a crucial context when interpreting the role of material well-being and work satisfaction in overall happiness. Income levels skewed toward lower brackets, with nearly two-thirds (64.9%) earning less than GHS 20,000 annually, revealing economic vulnerabilities that may constrain happiness. Similarly, housing patterns showed that 31.8% lived with family or friends, while 37.2% rented, and 29.8% owned their homes. [Tables 2–11](#) present descriptive statistics for the ten domains of the Happiness Index.

Table 10. Material Well-Being

Material well-being			Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
I am able to afford decent meal and clothing	Count	84	87	41	51	121	334	113	
	Percent	10.1	10.4	4.9	6.1	14.5	40.1	13.6	
I am able to afford a decent accommodation	Count	95	91	49	63	113	305	115	
	Percent	11.4	10.9	5.9	7.6	13.6	36.6	13.8	
I have a good paying job	Count	142	133	76	98	128	171	84	
	Percent	17	16	9.1	11.8	15.4	20.5	10.1	
I have investment(s) that I can rely on in times of crisis	Count	169	170	69	59	92	201	72	
	Percent	20.3	20.4	8.3	7.1	11	24.1	8.6	
I own a property	Count	168	186	44	41	63	221	108	
	Percent	20.2	22.3	5.3	4.9	7.6	26.5	13	

Table 11. Work Satisfaction

Work satisfaction		Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
I am able to work independently without any interference or influence from a third party	Count	60	153	82	109	108	218	101
	Percent	7.2	18.4	9.8	13.1	13	26.2	12.1
I receive reward and compensation when I am able to meet or exceed set targets at work	Count	126	98	73	143	114	217	60
	Percent	15.1	11.8	8.8	17.2	13.7	26.1	7.2
I always make sure I achieve my target at work	Count	26	106	98	133	104	226	138
	Percent	3.1	12.7	11.8	16	12.5	27.1	16.6
I am fulfilled with the work I do	Count	56	112	65	122	121	230	127
	Percent	6.7	13.4	7.8	14.6	14.5	27.6	15.2
I do not wish to leave my current work	Count	59	114	63	117	119	250	111
	Percent	7.1	13.7	7.6	14	14.3	30	13.3

4.2 Domain-Level Happiness Profiles

Across domains, psychological well-being emerged as the strongest dimension. Over 70% of respondents agreed or strongly agreed with the items related to purpose in life and positive interpersonal relationships, yielding the highest domain mean ($M = 5.76$, $SD = 0.85$), suggesting notable psychological resilience among participants. Healthcare access and quality showed mixed outcomes. While approximately 72% of respondents reported having good physical and mental health, fewer than half indicated they undergo regular health checkups, suggesting gaps in preventive health practices.

Time balance results were moderately positive, with respondents generally avoiding excessive work hours; however, only 31% reported taking regular vacations, indicating limited leisure opportunities. A similar pattern emerged for community belonging: most respondents (over 70%) felt safe and trusted their neighbours, yet fewer reported active engagement in community issues, suggesting a divide between social trust and civic participation. Social support networks were particularly strong, with more than 85% of respondents feeling understood and supported by friends and family, reflecting the enduring cultural importance of extended family systems in Ghana.

Education, arts, and cultural participation showed moderate agreement (approximately 60%), while indicators of cultural tolerance and cross-cultural interaction scored higher, reinforcing Ghana's pluralistic social fabric. In contrast, environmental quality attracted widespread dissatisfaction, with many respondents expressing concerns about pollution control, land degradation, and biodiversity loss, issues that align with national debates over illegal mining and environmental governance.

Governance recorded the lowest domain mean ($M = 3.45$, $SD = 1.67$), reflecting limited trust in public institutions, perceived weaknesses in accountability mechanisms, and dissatisfaction with anti-corruption efforts. Material well-being produced mixed outcomes: while most respondents reported being able to meet basic needs such as food and clothing, financial security, savings, and asset ownership remained limited, mirroring broader patterns of economic inequality. Work satisfaction was moderately high, with respondents reporting personal fulfilment and achievement, although concerns regarding compensation and reward structures constrained overall satisfaction.

4.3 Composite Happiness and Subgroup Differences

The composite Happiness Index averaged 4.70 out of 7 ($SD = 0.84$), indicating a moderate level of happiness among participants (Table 12). Subgroup analyses reveal systematic variation across socio-demographic categories (Tables 12a and 12b). Regionally, the Eastern Region reported the highest mean happiness score ($M = 4.99$), followed by Ashanti ($M = 4.97$), while the Volta Region recorded the lowest mean score ($M = 3.64$), suggesting regional disparities potentially linked to economic opportunity, infrastructure, and governance conditions. Males reported slightly higher happiness levels ($M = 4.76$) than females ($M = 4.63$), although the difference was modest.

Marital status was associated with happiness, with married respondents reporting the highest mean score ($M = 4.82$) and widowed respondents the lowest ($M = 4.52$), potentially reflecting social and economic vulnerabilities faced by widowed individuals. Happiness increased steadily with income, peaking among respondents earning above GHS 60,000 annually

Table 12. Happiness Index: The Mean Scores Are out of a Total Possible Score of 7

Valid number	Mean	Median	SD			
833	4.70	4.73	0.84			
	Mean	Median	N	Max	Min	Range
a						
Region						
Ashanti	4.97	4.91	363	6.99	1.81	5.18
Bono East	4.70	4.58	75	6.42	3.01	3.41
Eastern	4.99	5.08	196	6.14	3.40	2.73
Greater Accra	4.09	4.22	45	4.96	2.44	2.52
Oti	4.48	4.46	45	5.71	3.33	2.37
Volta	3.64	3.59	109	5.34	2.79	2.55
Gender						
Female	4.63	4.61	350	6.76	1.81	4.95
Male	4.76	4.79	483	6.99	2.02	4.97
Age						
15-34 years	4.59	4.53	321	6.76	2.44	4.32
35-54 years	4.77	4.83	338	6.73	1.81	4.92
55-74 years	4.84	4.93	148	6.92	2.76	4.16
75 years and above	4.53	4.59	26	6.99	3.02	3.97
Level of Education						
None	4.44	4.51	160	6.46	2.84	3.62
Basic	4.58	4.61	192	6.41	1.81	4.60
Secondary	4.78	4.77	253	6.70	3.00	3.70
Tertiary	4.87	4.94	205	6.92	2.79	4.13
Higher	5.36	5.50	22	6.99	4.03	2.96
Marital Status						
Divorced	4.80	4.91	26	6.48	2.01	4.47
Married	4.82	4.89	431	6.99	2.76	4.23
Separated	4.55	4.67	22	6.30	1.81	4.49
Single	4.59	4.50	308	6.76	2.02	4.74
Widowed	4.52	4.55	46	6.46	3.02	3.44
b						
Employment Status						
Full-time employment	5.02	5.08	417	6.92	3.08	3.84
Part-time employment	4.78	4.66	96	6.70	2.01	4.69
Retired	4.60	4.61	39	6.99	3.02	3.97
Student	4.55	4.40	103	6.76	3.33	3.43
Unemployed	4.03	3.99	177	6.14	1.81	4.33
Annual Income						
Less than GHS 20,000	4.49	4.46	541	6.76	1.81	4.95
GHS21000- GHS30000	5.01	5.08	151	6.92	2.02	4.90
GHS31000- GHS40000	5.04	4.98	63	6.99	3.47	3.52
GHS41000- GHS50000	5.27	5.34	39	6.73	3.49	3.23
GHS51000- GHS60000	5.42	5.42	26	6.32	4.64	1.68
Above GHS60000	5.57	5.49	9	6.68	4.84	1.84
Household Size						
1 person	4.32	4.34	110	6.42	2.02	4.40
2 people	4.58	4.48	80	6.70	3.04	3.66
3 people	4.49	4.34	134	6.22	2.79	3.43
4 people	4.67	4.69	157	6.92	2.76	4.16
5 people	4.83	4.83	125	6.37	1.81	4.57
6 or more people	5.02	5.05	225	6.99	2.01	4.98
Population Group						
Rural dweller	4.68	4.67	354	6.92	2.84	4.08
Urban dweller	4.73	4.75	479	6.99	1.81	5.18

(continued)

Table 12. (continued)

	Mean	Median	N	Max	Min	Range
Parental Status						
Caregiver	4.59	4.57	19	5.87	3.42	2.45
Expecting a child	4.81	4.82	22	5.76	3.66	2.10
Not a parent	4.59	4.50	294	6.76	2.02	4.74
Parent (mix)	4.83	4.92	402	6.99	2.76	4.23
Single custodial parent	4.39	4.44	70	6.46	1.81	4.65
Single non-custodial parent	4.93	5.22	26	6.48	2.79	3.69
Homeownership						
I am a homeowner	4.95	5.05	248	6.99	2.84	4.14
I am a renter	4.77	4.75	310	6.76	2.02	4.74
I live with family or friends	4.43	4.38	265	6.58	1.81	4.77
Others	4.03	3.83	7	5.28	3.37	1.91
Disability						
I do not have a disability	4.72	4.74	799	6.92	1.81	5.11
I have a disability	4.35	4.10	34	6.99	3.00	3.99

($M = 5.57$), compared with those earning below GHS 20,000 ($M = 4.49$). Larger households (six or more members) reported higher happiness levels ($M = 5.02$), suggesting that extended family structures may provide emotional and material support. The regional distribution of happiness and its domains is summarised in [Table 13](#), which highlights notable variations across the six study regions.

Table 13. Regional Distribution of Happiness Mean Score

Region & stat		HS	P	H	T	C	S	Ed	E	G	M	W
Ashanti	Mean	4.97	5.66	5.49	4.96	5.17	5.50	5.35	3.88	3.56	5.10	5.05
	Max	6.99	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
	Min	1.81	1.86	1.00	1.00	1.00	1.00	1.40	1.00	1.00	1.00	1.00
	Range	5.18	5.14	6.00	6.00	6.00	6.00	5.60	6.00	6.00	6.00	6.00
Bono East	Mean	4.70	6.43	5.23	3.03	6.68	6.55	6.35	2.23	3.09	3.23	4.16
	Max	6.42	7.00	7.00	7.00	7.00	7.00	7.00	5.60	7.00	7.00	7.00
	Min	3.01	2.57	1.00	1.00	3.40	3.60	4.00	1.00	1.00	1.00	1.60
	Range	3.41	4.43	6.00	6.00	3.60	3.40	3.00	4.60	6.00	6.00	5.40
Eastern Region	Mean	4.99	6.22	5.34	4.78	5.09	5.25	5.21	4.74	4.74	4.51	4.06
	Max	6.14	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.80	7.00	7.00
	Min	3.40	5.14	2.80	1.40	2.00	2.20	3.00	1.60	1.00	1.20	1.00
	Range	2.73	1.86	4.20	5.60	5.00	4.80	4.00	5.40	5.80	5.80	6.00
Greater Accra	Mean	4.09	5.36	5.16	4.48	4.83	5.27	4.54	1.54	1.36	4.12	4.29
	Max	4.96	6.14	6.00	6.40	6.00	6.00	6.00	3.40	2.80	6.20	6.00
	Min	2.44	3.00	2.00	2.00	2.00	3.80	1.00	1.00	1.00	1.40	1.00
	Range	2.52	3.14	4.00	4.40	4.00	2.20	5.00	2.40	1.80	4.80	5.00
Oti	Mean	4.48	5.88	5.11	4.15	5.59	6.46	4.69	2.42	2.18	3.44	4.91
	Max	5.71	6.86	7.00	6.20	7.00	7.00	7.00	5.60	4.60	7.00	7.00
	Min	3.33	4.29	2.80	2.20	3.00	4.80	3.00	1.00	1.00	1.00	1.80
	Range	2.37	2.57	4.20	4.00	4.00	2.20	4.00	4.60	3.60	6.00	5.20
Volta	Mean	3.64	4.91	3.03	3.30	5.13	5.00	4.20	3.34	2.45	1.73	3.34
	Max	5.34	6.29	5.40	4.80	6.40	6.20	6.00	5.40	6.00	6.00	5.80
	Min	2.79	3.57	2.00	1.75	3.00	3.20	2.60	1.50	1.00	1.00	1.40
	Range	2.55	2.71	3.40	3.05	3.40	3.00	3.40	3.90	5.00	5.00	4.40
Total	Mean	4.70	5.76	5.07	4.46	5.28	5.51	5.18	3.66	3.45	4.21	4.47
	Max	6.99	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
	Min	1.81	1.86	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Range	5.18	5.14	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00

Happiness Score (HS), Psychological Well-Being (P), Healthcare Access and Quality(H), Time Balance(T). Sense of Belonging in Community (C), Social Support (S), Access to Education, Arts, and Cultural Activities (Ed). Environmental Quality of Life (E), Effective Governance (G), Material Well-Being (M), & Work Satisfaction (W).

Table 14. Internal Consistency Reliability of the Happiness

Domain	Number of Items	Cronbach's α
Psychological well-being	7	0.757
Health access and quality	6	0.786
Time balance	6	0.755
Community belonging	6	0.798
Social support	6	0.793
Education, arts and culture	6	0.753
Environment	6	0.836
Governance	6	0.93
Material well-being	6	0.909
Work satisfaction	7	0.837
Overall scale	62	0.824

4.4 Psychometric Properties (Reliability and Construct Validity)

The psychometric performance of the Happiness Index was first examined to establish its reliability and validity prior to substantive analysis. The survey items demonstrated good internal consistency, with Cronbach's alpha of 0.824, exceeding the commonly accepted threshold of 0.70. Domain-specific reliability coefficients ranged from 0.753 to 0.930, indicating acceptable to excellent internal consistency across all ten domains (Table 14). Exploratory factor analysis (EFA) was used to assess construct validity. The Kaiser-Meyer-Olkin (KMO) sampling adequacy measure was 0.920, indicating that the data were appropriate for factor analysis. The Bartlett's Test of Sphericity produced a statistically significant result ($\chi^2(1326) = 26,160.648$, $p < 0.001$). This finding confirmed that the correlation matrix was not an identity matrix, thus supporting the suitability of the data for factor extraction.

Principal Axis Factoring with Promax oblique rotation was applied, consistent with the theoretical expectation that happiness domains are interrelated rather than independent. A ten-factor solution was retained, guided by eigenvalues greater than one, inspection of the scree plot, which showed a clear inflexion after the tenth factor (Figure 1), and the theoretically grounded ten-domain structure of the Happiness Alliance framework. The retained factors jointly explained 67.8% of the total variance (Table 15). Item loadings, ranging from approximately 0.32 to 0.97, indicated moderate to strong associations between the observed variables and their respective latent constructs. Only minimal cross-loadings were observed, and where present, items were retained based on strong theoretical relevance and conceptual alignment with their intended domains. Factor intercorrelations were moderate ($|r| \approx 0.04\text{--}0.61$), supporting the use of oblique rotation and confirming that the domains represent related but distinct dimensions of subjective well-being.

4.5 Inferential Analysis: Correlation and Regression Results

The Pearson correlation matrix (Table 16) indicated statistically significant positive associations between overall happiness and all ten domains ($p < 0.01$). Correlation coefficients ranged from moderate to strong, with material well-being ($r = 0.79$)

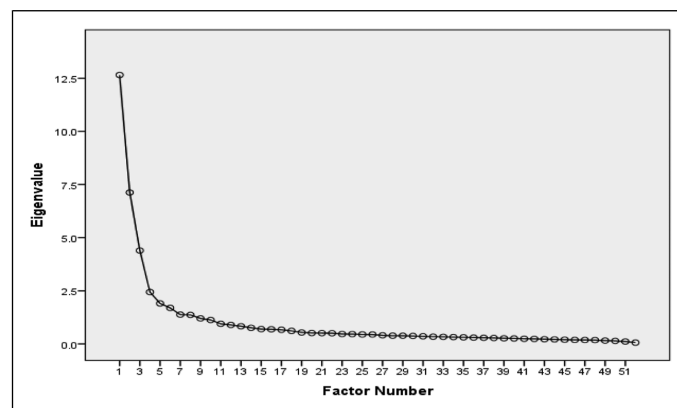
**Figure 1.** Scree plot of eigenvalues

Table 15. Results of Exploratory Factor Analysis (Total Variance Explained by the 10-Factor Solution)

Factor	Eigenvalue	% of Variance	Cumulative %
1	12.652	24.33	24.33
2	7.123	13.7	38.03
3	4.395	8.45	46.48
4	2.44	4.69	51.17
5	1.904	3.66	54.83
6	1.694	3.26	58.09
7	1.379	2.65	60.74
8	1.366	2.63	63.37
9	1.2	2.31	65.68
10	1.127	2.17	67.84

and work satisfaction ($r = 0.74$) exhibiting the strongest associations, while community belonging ($r = 0.48$) showed the weakest. Governance ($r = 0.53$) and social support ($r = 0.50$) were also meaningfully associated with happiness.

Several inter-domain correlations were also notable, including a strong association between governance and environmental quality ($r = 0.65$), suggesting that perceptions of institutional trust and ecological well-being often align. Similarly, community belonging and social support ($r = 0.67$) were closely linked, reinforcing the role of communal and familial ties in Ghanaian society. These correlations suggest that happiness in Ghana is multifaceted, driven by a combination of personal well-being (psychological and health), social cohesion (community and social support), and structural conditions (material well-being, governance, and environmental factors).

To examine the relative contribution of each domain to the composite Happiness Index, a multiple regression-based decomposition was estimated that included all 10 domains (Table 17). As expected, given the index's construction, the model explained a substantial proportion of the variance in the composite score ($R^2 = 0.988$). This high explanatory power reflects the mathematical and conceptual integration of the domains within the index rather than independent predictive effects.

Standardised coefficients indicate that material well-being ($\beta = 0.21$), governance ($\beta = 0.20$), community belonging ($\beta = 0.19$), and work satisfaction ($\beta = 0.19$) represent the most significant relative contributors to the composite happiness score.

Table 16. Correlation Between Overall Happiness and all Ten Domains

	HS	P	H	T	C	S	Ed	E	G	M	W
HS	<i>r</i> 1.000	.618**	.747**	.714**	.483**	.504**	.672**	.492**	.526**	.787**	.738**
	<i>p</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
P	<i>r</i> .618**	1.000	.568**	.320**	.397**	.495**	.561**	.085*	.180**	.353**	.344**
	<i>p</i> 0.000		0.000	0.000	0.000	0.000	0.000	0.014	0.000	0.000	0.000
H	<i>r</i> .747**	.568**	1.000	.540**	.216**	.360**	.529**	.215**	.242**	.590**	.504**
	<i>p</i> 0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
T	<i>r</i> .714**	.320**	.540**	1.000	.176**	.187**	.366**	.347**	.231**	.611**	.579**
	<i>p</i> 0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000
C	<i>r</i> .483**	.397**	.216**	.176**	1.000	.666**	.428**	-0.001	0.052	.192**	.347**
	<i>p</i> 0.000	0.000	0.000	0.000		0.000	0.000	0.971	0.133	0.000	0.000
S	<i>r</i> .504**	.495**	.360**	.187**	.666**	1.000	.485**	-.158**	-0.028	.265**	.412**
	<i>p</i> 0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.427	0.000	0.000
Ed	<i>r</i> .672**	.561**	.529**	.366**	.428**	.485**	1.000	.141**	.163**	.396**	.443**
	<i>p</i> 0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000
E	<i>r</i> .492**	.085*	.215**	.347**	-0.001	-.158**	.141**	1.000	.647**	.293**	.140**
	<i>p</i> 0.000	0.014	0.000	0.000	0.971	0.000	0.000		0.000	0.000	0.000
G	<i>r</i> .526**	.180**	.242**	.231**	0.052	-0.028	.163**	.647**	1.000	.318**	.143**
	<i>p</i> 0.000	0.000	0.000	0.000	0.133	0.427	0.000	0.000		0.000	0.000
M	<i>r</i> .787**	.353**	.590**	.611**	.192**	.265**	.396**	.293**	.318**	1.000	.695**
	<i>p</i> 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
W	<i>r</i> .738**	.344**	.504**	.579**	.347**	.412**	.443**	.140**	.143**	.695**	1.000
	<i>p</i> 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

r = Pearson correlation coefficient; *p* = two-tailed significance.

** . Correlation is significant at the 0.01 level (2-tailed); * .Correlation is significant at the 0.05 level (2-tailed).

Table 17. Regression Coefficients, Confidence Intervals, and Collinearity Diagnostics

Model	B	SE	β	t	95% CI (B)			Correlations			Collinearity Statistics	
					Sig.	LB	UB	r	Partial	Part	TOL	VIF
(Constant)	0.15	0.02		8.95	0	0.12	0.18					
P	0.12	0	0.12	33.71	0	0.11	0.13	0.62	0.76	0.09	0.54	1.84
H	0.11	0	0.17	43.25	0	0.1	0.11	0.75	0.83	0.11	0.45	2.23
T	0.1	0	0.16	42.21	0	0.09	0.1	0.71	0.83	0.11	0.5	1.98
C	0.14	0	0.19	61.09	0	0.14	0.15	0.48	0.91	0.16	0.73	1.38
S	0.12	0	0.14	24.05	0	0.11	0.13	0.5	0.64	0.09	0.43	2.35
Ed	0.11	0	0.15	43.7	0	0.1	0.11	0.67	0.84	0.12	0.55	1.82
M	0.1	0	0.21	50.04	0	0.1	0.1	0.79	0.87	0.13	0.39	2.49
W	0.11	0	0.19	46.36	0	0.11	0.11	0.74	0.85	0.12	0.42	2.39
E	0.09	0	0.15	41.9	0	0.08	0.09	0.49	0.83	0.11	0.53	1.9
G	0.1	0	0.2	55.76	0	0.1	0.1	0.53	0.89	0.15	0.54	1.84

Dependent Variable: Happiness Score

B = unstandardized regression coefficient; SE = standard error; β = standardized regression coefficient; CI = confidence interval; LB = lower bound; UB = upper bound; r = zero-order correlation; VIF = variance inflation factor; TOL = tolerance.

Healthcare access and quality ($\beta = 0.17$), time balance ($\beta = 0.16$), education and culture ($\beta = 0.15$), environmental quality ($\beta = 0.15$), social support ($\beta = 0.14$), and psychological well-being ($\beta = 0.12$) also contributed meaningfully, underscoring the multidimensional nature of happiness.

Regression diagnostics indicated no violations of key assumptions. Variance inflation factors ranged from 1.38 to 2.49, confirming the absence of problematic multicollinearity and supporting the stability of the estimated coefficients.

The findings align with global evidence, including insights from the World Happiness Report, which identifies income, social support, and trust in institutions as central to subjective well-being. In the Ghanaian context, overall happiness levels were moderate and cannot be adequately explained by economic conditions alone. Although material well-being emerged as one of the strongest contributors within the composite happiness structure, its influence operated alongside governance quality, community belonging, and work satisfaction. This pattern supports earlier research suggesting diminishing returns to income and highlights the importance of accountable public institutions, economic stability, and social cohesion in sustaining well-being (Alesina et al., 2004; Easterlin, 1995, 2001; Ferrer-i-Carbonell, 2005; Musikanski et al., 2017). The substantial contribution of community belonging reflects Ghana's communitarian cultural ethos. It suggests that community-driven initiatives, such as festivals, volunteer programmes, and neighbourhood associations, can play a meaningful role in enhancing well-being.

Environmental quality, though only moderately associated with happiness, remains a critical policy concern given widespread dissatisfaction with pollution, land degradation, and biodiversity loss. Strengthened environmental governance and enforcement against illegal mining could therefore address one of the most persistent detractors of happiness identified in this study. Finally, while healthcare access, education, and social support contributed less strongly to variation in happiness, they form the essential foundation for psychological resilience and long-term life satisfaction. Together, these findings underscore the value of adopting a multidimensional happiness index as a complementary tool for development planning in Ghana, enabling policymakers to assess social and institutional outcomes alongside conventional economic indicators.

These findings should be interpreted in light of critical methodological limitations. The study employed a non-probability convenience sample drawn from six administrative regions (Ashanti, Bono East, Eastern, Greater Accra, Oti, and Volta). Therefore, the results cannot be considered nationally representative of the entire Ghanaian population. While the selected regions capture substantial socio-economic and geographic diversity, the happiness levels and domain contributions reported here should be understood as exploratory rather than definitive national estimates. Future research using nationally representative probability samples and broader regional coverage would be required to validate and extend these findings at the national level.

5.0 Concluding Remarks

This study offers empirical evidence regarding the multifaceted nature of subjective happiness in Ghana, utilising a psychometrically validated Happiness Index based on the Happiness Alliance framework. The findings reveal that overall

happiness among participants is moderate, exhibiting significant variation across regions, income brackets, and socio-demographic categories. These patterns underscore the notion that happiness cannot be solely attributed to economic conditions; rather, it is a manifestation of the interplay among psychological, social, institutional, environmental, and material factors.

Consistent with earlier scholarship (Easterlin, 1995, 2001; Alesina et al., 2004; Ferrer-i-Carbonell, 2005; Musikanski et al., 2017), the findings show that income is positively associated with happiness but does not fully account for differences in subjective well-being. Although material well-being contributed most strongly within the composite happiness structure, its role was closely complemented by governance quality, community belonging, and work satisfaction, highlighting the importance of institutional trust, social cohesion, and meaningful economic participation. Psychological well-being and healthcare access both contributed significantly, highlighting the importance of mental resilience and fundamental social services in maintaining life satisfaction.

Notably, despite having the lowest descriptive rating, governance was a prominent feature in the multivariate decomposition of the composite index, indicating a close relationship between citizens' lived well-being and public accountability and institutional performance. Low satisfaction levels were also found in environmental quality, which supports persistent national worries about pollution, land degradation, and ecological governance. However, because of conceptual and empirical overlap with community belonging, their unique contribution to multivariate analysis was lessened. In contrast, social support networks were consistently strong throughout the sample, reflecting Ghana's communitarian social fabric.

Observed regional and socio-demographic disparities further indicate that happiness and life satisfaction are unevenly distributed, with lower scores evident among residents of economically constrained regions and among widowed and low-income groups. These findings underscore the need for targeted, context-sensitive policy responses, rather than uniform national interventions.

Taken together, the results support the institutionalisation of a multidimensional happiness measurement tool as a complementary policy instrument in Ghana. Regular application of such an index would enable policymakers to track changes in social, institutional, and environmental well-being over time, providing insights that extend beyond conventional macroeconomic indicators. Embedding subjective well-being metrics within national development planning and monitoring frameworks could strengthen evidence-based policymaking, enhance public accountability, and better align development priorities with the lived experiences of the population.

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Ethical Considerations

The Research and Publications Ethics Review Committee at the Institute for Security, Disaster, and Emergency Studies (ISDES) approved our interviews (approval: ISDES/ Vol. 0003/No. 4/GHSS-01/2/2024/isdes/gh) on February 21, 2024. Respondents gave written consent for review and signature before starting interviews.

Consent to Participate

The study was approved by the Research and Publications Ethics Review Committee (Ethical Clearance Reference Number: SDES/Vol. 0003/No. 4/GHSS-01/2/2024/isdes/gh) on February 21, 2024. All participants provided written informed consent prior to participating.

Author Contribution

IDN, ESA, SN and EDK conceptualized the study. IDN drafted the prose section, including the literature review, and helped with the qualitative analysis. ESA and EDK conducted the field data collection with a team of research assistants. EDK and SN performed the statistical analysis. IDN, ESA, SN and EDK read and reviewed the final manuscript.

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Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Data Availability Statement

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

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