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APPROACHES TO ASSESSING AND ENSURING SOCIAL WELL-BEING IN THE CONTEMPORARY GHANAIAN SOCIETY

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CONTENTS

INTRODUCTION

Relevance of the research topic

The quest to improve living and welfare conditions of humanity in society has been a significant hallmark for early historical trends of human development researchers in the early 1980s. Within the contemporary state of the world, the United Nations' Sustainable Development Goals (SDG) Agenda outlines determined goals for accelerating the pace of basic human development and "leaving no one behind" in the fight against poverty. One approach to dealing with the agenda of UN-SDG is to improve and increase the standard of living, which is determined by the well-being of people.

In today's world, appraising people's well-being is a point of contention due to the multinational approaches in measurement. Academics and welfare policy analysts advocate for elaborated means of measuring the standard of living, especially in today's conditions. There is an obviously renewed interest in the implications and consequences of the state of (post)modernity and how it shapes the standard of living of the world's citizens. The possibilities for the implementation of this renewed interest are largely due to the influence of technologies on all aspects of the life of individuals in the contemporary society.

The purpose of this research is to examine the approaches to assessing and ensuring the social well-being of the Ghanaian population in the contemporary conditions. One major social-demographic challenge in Ghana is the low standard of living, especially in rural areas. This situation has forced many individuals to migrate from rural regions to urban centres in search of job opportunities, with the goal of securing their families' social well-being. However, the outcomes of such migration often fall short of addressing the social needs of these families. In Ghana, recent studies on welfare and the measurement of poverty often exclude the linkages of alternative approaches (such as migration and technology) to measuring social well-being. This means that there are few studies highlighting alternative approaches to measuring social well-being in Ghana. It is crucial to identify and implement new

technologies that can improve the standard of living and enhance the social well-being of citizens in today's world. Therefore, this study aims to fill these research gaps.

In general, the relevance of the research task is determined by several factors: first, there is an urgent need to improve the well-being of Ghanaians by developing and outlining alternative approaches that enhance and improve all aspects of citizens' lives in the contemporary society. This forms the basis for understanding social well-being and the specific technological concerns needed to reduce inequality and improve living standards. Second, there is a need to develop informed policies and programs aimed at providing either specific or general services to reduce poverty and inequality among Ghanaians. Evidence-based research is crucial for understanding the social well-being of Ghanaians and guiding policies and programs that address their needs and methods for improving social well-being. Third, the study contributes to the limited literature on issues concerning alternative approaches to measuring social well-being. This could serve as a foundation for conducting high-quality research in the filed of sociological issues, migration studies and technological bases of social well-being. Most importantly, the study offers an efficient alternative to Ghana's Living Standards Survey by addressing technologies and the social dimensions of the well-being of Ghanaian citizens, providing a more holistic way of measuring well-being in a developing country like Ghana.

Degree of the scientific development

In sociology, one of the main strategies for dealing with the complexity of social reality is through improved social well-being – an integral category of social reality that encompasses several areas of sociological knowledge. The study of social well-being's intentional and socially transformative features is based on classical and contemporary theories[1]; following these theories, social well-being is viewed

[1] See, e.g.: Durkheim, E. (1951). *Suicide: A Study in Sociology.* Glencoe: Free Press; Tonnies, F. (1979). *Gemeinschaft und Gesellschaft* [1887]. Springer-Verlag.

as both a combination of social actions and a space for social communication within the cultural and value context shaped by external structures of the society[2].

Within the theoretical framework of sociology of management, society, well-being, and modernization have been extensively researched. The level of the scientific explanation of the topic and its important aspects, the theoretical-methodological basis of the research are reflected in the works dedicated to various issues of social well-being[3] and technologies[4].

Furthermore, social issues related to technological decisions have been extensively discussed in the works on social management and engineering[5]. There is also diverse critique of traditional approaches to social engineering[6]. Despite its wide

[2] See, e.g.: Koo, H., Yee, J., Nam, E.Y., Kim, E.S. (2016). Dimensions of social well-being and determinants in Korea: Personal, relational, and societal aspects. *Senshu Social Well-Being Review*, 3.

[3] See, e.g.: Keyes, C.L., Shapiro, A.D. (2004). Social well-being in the United States: A descriptive epidemiology. *How Healthy Are We*, 15 (3); Keyes, C.L., Shmotkin, D., Ryff, C.D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology*, 82 (6); Keyes, C.L.M. (1998). Social well-being. *Social Psychology Quarterly*, 61 (2); Sarvimäki, A. (2006). Well-being as being well. A Heideggerian look at well-being. *International Journal of Qualitative Studies on Health and Well-Being*, 1 (1); Trotsuk, I.V., Anamoa-Pokoo, S. (2024) Is reliable sociological measurement of social well-being possible? The case of Ghana. *RUDN Journal of Sociology*, 24 (3); Veenhoven, R. (2005). Inequality of happiness in nations. *Journal of Happiness Studies*, 6 (4); Veenhoven, R. (2010). Capability and happiness: Conceptual difference and reality links. *Journal of Socio-Economics*, 39 (3); Wilkinson, K.P. (1979). Social well-being and community. *Community Development*, 10 (1).

[4] See, e.g.: Arnold, M. (2003). On the phenomenology of technology: The "Janus-faces" of mobile phones. *Information and Organization*, 13 (4); Benitez, J.L. (2006). Transnational dimensions of the digital divide among Salvadoran immigrants in the Washington DC metropolitan area. *Global Networks*, 6 (2); Burgess, J., Connell, J. (2020). New technology and work: Exploring the challenges. *Economic and Labour Relations Review*, 31 (3); Carvalho, J., Francisco, R., Relvas, A.P. (2015). Family functioning and information and communication technologies: How do they relate? A literature review. *Computers in Human Behaviour*. 45; Combi, C., Pozzani, G., Pozzi, G. (2016). Telemedicine for developing countries. *Applied Clinical Informatics*, 7 (4); Du, Y.H., Wei, X.H. (2020). Task content routinisation, Technological change and labour turnover: Evidence from China. *Economic and Labour Relations Review*, 31 (3); Marlowe, J.M., Bartley, A., Collins, F. (2017). Digital belongings: The intersections of social cohesion, connectivity and digital media. *Ethnicities*, 17 (1); Oh, H. J., Ozkaya, E., LaRose, R. (2014). How does online social networking enhance life satisfaction? The relationships among online supportive interaction, affect, perceived social support, sense of community, and life satisfaction. *Computers in Human Behaviour*, 30; Smith, M.R., Marx, L. (Eds.). (1994). *Does Technology Drive History? The Dilemma of Technological Determinism*. MIT Press; Suzor, N.P. (2019). *Lawless: The Secret Rules that Govern Our Digital Lives*. Cambridge University Press; Van Dijck, J. (2020). Governing digital societies: Private platforms, public values. *Computer Law & Security Review*, 36; Van Dijk, J. (2020). *The Digital Divide*. John Wiley & Sons; World Economic Forum (2020). The Future of Jobs Report. URL: https://www.weforum.org/publications/the-future-of-jobs-report-2020; Vinichenko, M., Barkov, S., Oseev, A. et al. (2022). Attractiveness of the megaproject labor market for metropolitan residents in the context of digitalization and the long-lasting COVID-19 pandemic. *International Journal of Advanced Computer Science and Applications*, 13 (9); Hossain, B., Fatima, M.Ja., Muzykant, V.L. et al. (2023). An overview of digital media literacy in digital Bangladesh. *Cita Hukum*, 11 (2).

[5] See, e.g.: Duclos, J.Y., Tiberti, L., Araar, A. (2018). Multidimensional poverty targeting. *Economic Development and Cultural Change*, 66 (3); Markov, M. (1982). *Technology and Efficiency of Social Management*, Moscow: Progress; Shcherbina, V.V. (2014). Social technologies: A history of term, content transformation, and contemporary state. *Sociological Studies*, 7.

[6] See, e.g.: Stiglitz, J., Sen, A., Fitoussi, J.P. (2009). *The Measurement of Economic Performance and Social Progress Revisited: Reflections and Overview*. No. 2009-33. URL: https://ec.europa.eu/eurostat/documents/8131721/8131772/Stiglitz-Sen-Fitoussi-Commission-report.pdf; Stiglitz, J.E. (2012). Macroeconomic fluctuations, inequality, and human development. *Journal of Human Development and Capabilities*, 13 (1); Urzha, O.A. (2017). Social engineering as methodology of management activity. *Sociological Studies*, 10.

representation in scientific literature on various aspects related to social well-being, there are significant research gaps in the development of technologies and social well-being with respect to geographical jurisdictions (regions). It is noted that there is a lack of broad descriptions of technologies and analyses on the components and domains of social well-being. Conceptualizing the concepts and components of social well-being and developing a component unit of analysis for the contents of technologies that improve social well-being are the research goals of this thesis. Thus, the weaknesses associated with existing research works disclosed in the context of the study inform the scope of subjects and objects related to social well-being and technological design.

The **object of the study** is the approaches for measuring social well-being (on the example of the Ghanaian population in the contemporary conditions).

The **subject of the research** is the state of social well-being (on the example of the Ghanaian population in the contemporary conditions).

The **purpose of the study** is to develop methodological and practical recommendations on alternative approaches to measuring and ensuring social well-being of the Ghanaian population based on the sociological analysis.

The research goal is achieved through the following **tasks**:

- Systematize the interpretations and approaches to defining and measuring well-being (including in Ghana)
- Identify the international measuring standards and factors used to assess well-being (including in Ghana)
- Conduct a sociological analysis of the well-being state and factors in Ghana
- Assess the migration measurement of the social well-being in Ghana
- Evaluate the technological measurement of the social well-being in Ghana
- Identify advantages and limitations of the used and the suggested approaches to measuring and ensuring well-being in Ghana.

Hypothesis of the study

Since Ghana's independence in 1957, most assessments of well-being and poverty have been formal in nature and relied on economic indicators and the Gross Domestic Product (GDP) growth rate. However, solely depending on economic indicators like GDP may not accurately reflect the quality of people's lives. This highlights the idea that simply meeting material needs and increasing economic growth may not necessarily lead to significant improvements in citizens' well-being. There is a pressing need to develop models that clearly outline the various components of well-being, how they are measured, and how the resulting data should be interpreted to ensure a valid and reliable assessment. Measures of economic well-being, life satisfaction, and societal well-being encompass key aspects of a good life. By developing alternative approaches to measuring well-being to enhance and implement economic well-being, life satisfaction, and societal well-being, we would address both tactical and strategic issues related to the social-economic challenges that the Ghanaian population faces today. Therefore, the study is based on the following hypothetical statements:

H_0: There is no significant difference between technologies and the social well-being of the Ghanaian population.

H_1: There is a significant difference between technologies and social well-being of the Ghanaian population.

Theoretical-methodological basis of the study

Despite numerous attempts of the comprehensive interdisciplinary analysis of the concept of well-being (its definitions, interpretations and measurements), it remains quite complex and ambiguous due to being applied in different contexts with diverse meanings (for instance, in psychological and social sciences, well-being and happiness are often considered as intertwined yet distinct constructs[7]). Due to its

[7] See, e.g.: Haidt, J. (2006). *The Happiness Hypothesis: Putting Ancient Wisdom and Philosophy to the Test of Modern Science*. Random House; Helliwell, J.F., Layard, R., Sachs, J. (2023). World Happiness Report. United Nations Sustainable Development Solutions Network. URL: https://worldhappiness.report; Narbut, N.P., Trotsuk, I.V. (2021). Russians' interpretation of happiness and its determinants: Results of the survey. *Journal of the Belorussian State University*, 4; Narbut, N.P., Trotsuk, I.V. (2021). Happiness as an interdisciplinary construct: Types of sociological

complex and debated nature, there is no generally recognized conceptual not to mention empirical definition of well-being; however, there is a general consensus that well-being is a valuable and crucial goal for all societies, encompassing multiple aspects of life, such as physical and mental health, emotional balance, social connections, economic stability, and so on[8].

Certainly, decades and even centuries of searching for definitions, indicators and paths to well-being, defined primarily as happiness, could not but lead to the development of clearly different philosophical approaches, among which hedonic and eudaimonic understandings seems to be the most known. The hedonic approach follows utilitarian principles, emphasizing the role of pleasure and satisfaction in achieving well-being and suggesting that a good life is one that maximizes enjoyment and minimizes suffering. Hedonic well-being typically consists of life satisfaction (evaluative aspect) and affective balance (the ratio of positive to negative emotions), i.e., a high level of hedonic well-being is characterized by frequent

conceptualization and operationalization. *Bulletin of the Russian Foundation for Humanities. Series of Humanities and Social Sciences*, 2; Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57 (6); Trotsuk, I.V. (2019). What do sociologists really "measure" when speaking of happiness? *Sociology in XXI Century: Challenges and Perspectives*. Belgrade-Niš: Serbian Sociological Association, University of Niš; Veenhoven, R. (2005). Inequality of happiness in nations. *Journal of Happiness Studies*, 6 (4); Veenhoven, R. (2003). Hedonism and happiness. *Journal of Happiness Studies*, 4; Veenhoven, R. (2010). Capability and happiness: Conceptual difference and reality links. *Journal of Socio-Economics*, 39 (3); Waterman, A.S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of Personality and Social Psychology*, 64 (4); Yonk, R.M., Smith, J.T., Wardle, A.R. (2017). Building a quality-of-life index. *Quality of Life and Quality of Working Life*. URL: https://www.intechopen.com/chapters/54577.

[8] See, e.g.: Christopher, J.C. (1999). Situating psychological well-being: Exploring the cultural roots of its theory and research. *Journal of Counselling & Development*, 77 (2); Dodge, R., Daly, A.P., Huyton, J., Sanders, L.D. (2012). The challenge of defining wellbeing. *International Journal of Well-Being*, 2 (3); Fadda, G., Jirón, P. (1999). Quality of life and gender: a methodology for urban research. *Environment and Urbanization*, 11 (2); Fleche, S., Smith, C., Sorsa, P. (2011). *Exploring Determinants of Subjective Well-Being in OECD Countries: Evidence from the World Value Survey* (No. 921). OECD Publishing; Huovinen, R., Blackmore, C. (2016). The dynamics of relational well-being in the context of mobility in Peru. *Cultures of Wel1-Being* (pp. 175-197). London: Palgrave Macmillan; Mazzucato, V., Schans, D. (2011). Transnational families and the well-being of children: Conceptual and methodological challenges. *Journal of Marriage and the Family*, 73 (4); McGregor, J.A. (2018). Reconciling universal frameworks and local realities in understanding and measuring well-being. *The Politics of Well-Being: Theory, Policy and Practice* (pp. 197–224). URL: https://www.researchgate.net/publication/326179264_Reconciling_Universal_Frameworks_and_Local_Realities_in_Understanding_and_Measuring_Wellbeing; Salehan, M., Kim, D.J., Koo, C. (2018). A study of the effect of social trust, trust in social networking services, and sharing attitude, on two dimensions of personal information sharing behaviour. *Journal of Supercomputing*, 74 (8); Teghe, D., Rendell, K. (2005). Social wellbeing: A literature review. URL: https://www.researchgate.net/publication/320706120_Social_wellbeing_a_literature_review; Trotsuk, I.V., Subbotina, M.V. (2022). 'Core' and 'periphery' of the concepts 'happiness' and 'justice': Unfinished sentences technique as a means of validation. *RUDN Journal of Sociology*, 22 (4); Valkenburg, P.M., Koutamanis, M., Vossen, H.G. (2017). The concurrent and longitudinal relationships between adolescents' use of social network sites and their social self-esteem. *Computers in Human Behaviour*, 76; White, S.C. (2010). Analysing well-being: A framework for development practice. *Development in Practice*, 20 (2).

positive emotions and rare negative emotions, based on the high general life satisfaction. The eudaimonic approach originates from Aristotelian philosophy which emphasizes living in accordance with one's true nature, fulfilling one's potential and focusing on meaning and self-realization rather than the pursuit of pleasure. Therefore, key components of eudaimonic well-being are personal growth (realization of one's potential over time), purpose in life (meaningful goals and a sense of direction), autonomy (ability to make independent choices and to self-regulate one's behaviour), environmental mastery (capacity to manage life's demands effectively), positive relationships (satisfying and supportive social connections), and self-acceptance (a positive attitude toward oneself and one's life experiences).

Such interpretations are acceptable in sociology as conceptual definitions of well-being, but for empirical studies we need a more precise list of indicators which are typically divided into objective and subjective[9]. Thus, objective well-being

[9] See, e.g.: Borraz, F., Pozo, S., Rossi, M. (2010). And what about the family back home? International migration and happiness in Cuenca, Ecuador. *Journal of Business Strategies*, 27 (1); Bouoiyour, J., Selmi, R., Miftah, A. (2019). The relationship between remittances and macroeconomic variables in times of political and social upheaval: Evidence from Tunisia's Arab Spring. *Economics of Transition and Institutional Change*, 27 (2); Coburn, D. (2004). Beyond the income inequality hypothesis: Class, neo-liberalism, and health inequalities. *Social Science & Medicine*, 58 (1); Davern, M., Gunn, L., Whitzman, C., Higgs, C., Giles-Corti, B., Simons, K., Badland, H. (2017). Using spatial measures to test a conceptual model of social infrastructure that supports health and wellbeing. *Cities & Health*, 1 (2)' Dhéret, C. (2015). Fostering social cohesion: The missing link in the EU's exit strategy from the crisis. *EPC Discussion Paper;* Diener, E. (2009). Subjective well-being. *The Science of Well-Being*. Springer; Diener, E., Suh, E.M., Lucas, R.E., Smith, H.L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125 (2); Duncan, G. (2005). What do we mean by "happiness"? The relevance of subjective well-being to social policy. *Social Policy Journal of New Zealand*, 25; Easterlin, R. (2001). Income and happiness: Towards a unified theory. *Economic Journal*, III; Easterlin, R. (1995). Will raising the income of all increase the happiness of all? *Journal of Economic Behavior and Organization*, 27; Ferrer-i-Carbonell, A., Frijters, P. (2004). How important is methodology for the estimates of the determinants of happiness? *Economic Journal*, 114; Fosu, A.K. (2015). Growth, inequality and poverty in Sub-Saharan Africa: Recent progress in a global context. *Oxford Development Studies*, 43 (1); Grant, C.A., Wallace, L.M., Spurgeon, P.C. (2013). An exploration of the psychological factors affecting remote e-worker's job effectiveness, well-being and work-life balance. *Employee Relations*, 35 (5); Hujo, K. (2021). Social protection and inequality in the global South: Politics, actors and institutions. *Critical Social Policy*, 41 (3); Kahneman, D., Krueger, A.B. (2006). Developments in the measurement of subjective well-being. *Journal of Economic Perspectives*, 20 (1); Kahneman, D., Deaton, A. (2010). High income improves evaluation of life but not emotional well-being. *Proceedings of the National Academy of Sciences*, 107 (38); Koomson, I., Villano, R.A., Hadley, D. (2020). Effect of financial inclusion on poverty and vulnerability to poverty: Evidence using a multidimensional measure of financial inclusion. *Social Indicators Research*, 149 (2); Larson, J.S. (1992). The measurement of social well-being. *Social Indicators Research*, 28; Michaelson, J., Abdallah, S., Steuer, N., Thompson, S. et al. (2009). *National Accounts of Well-Being: Bringing Real Wealth onto the Balance Sheet*. London: New Economics Foundation; Nguyen, L., Yeoh, B. S., Toyota, M. (2006). Migration and the well-being of the 'left behind' in Asia: Key themes and trends. *Asian Population Studies*, 2 (1); Osseiran-Waines, N. (1995). Social indicators of well-being: A comparative study between students in Bahrain. *Social Indicators Research*, 34 (1); Prowse, M. (2010). Integrating reflexivity into livelihoods research. *Progress in Development Studies*, 10 (3); Soósová, M.S. (2016). Determinants of quality of life in the elderly. *Central European Journal Nursing and Midwifery*, 7 (3); Trotsuk, I.V. (2019). Three approaches to the sociological study of the social well-being. *Serbian Sociological Review*, LIII (1); Shilina, S.A., Kusova, L.N. (2022). A study of unemployment with the sociological survey methos: A social portrait of the unemployed young specialist. *Economy. Sociology. Law*, 4.

refers to measurable material, external life conditions or resources that contribute to the quality of life and can be quantified and measured through economic indicators (income, employment status, wealth as material living standards), health indicators (physical health metrics, such as life expectancy, disease prevalence, access to healthcare), educational (levels of education, general access to learning), environmental (air and water quality, noise levels, access to green spaces), and social (crime rates, community infrastructure, civil engagement). Subjective well-being encompasses personal perceptions and internal experiences – how individuals interpret, evaluate and feel about their lives, which is measured through such indicators as life satisfaction (evaluation of one's life as a whole or of its specific domains (e.g., work, relationships)**),** emotional (balance of positive and negative emotions experienced on a daily basis) and cognitive (personal assessments and perceptions of one's life situation, personal achievements or living conditions).

Both groups of well-being's indicators are important for developing and implementing social policies by helping to identify problem areas, understand relationships between conditions and results, review and evaluate policy choices, improve implementation strategy, and assess outcomes over time. Sociologists certainly favour subjective indicators of well-being and measure it through identifying value orientations, describing common societal fears, and assessing levels of happiness, along with the factors contributing to it and its sustainability[10]. Referring to Durkheim's sociological concept of anomie, one can consider alienation as one such

[10] See, e.g.: Cummins, R.A., Eckersley, R., Pallant, J., Van Vugt, J., Misajon, R. (2003). Developing a national index of subjective wellbeing: The Australian Unity Wellbeing Index. *Social Indicators Research*, 64 (2); Dekker, R., Engbersen, G. (2014). How social media transform migrant networks and facilitate migration. *Global Networks*, 14 (4); Dercon, S., De Weerdt, J., Bold, T., Pankhurst, A. (2006). Group-based funeral insurance in Ethiopia and Tanzania. *World Development*, 34 (4); Huovinen, R., Blackmore, C. (2016). The dynamics of relational well-being in the context of mobility in Peru. *Cultures of Wel1-Being* (pp. 175-197). London: Palgrave Macmillan; Ivlevs, A., Nikolova, M., Graham, C. (2018). Emigration, remittances, and the subjective well-being of those staying behind. *Journal of Population Economics*, 32 (1); Nagimova, A.M. (2010). *Sociological Analysis of the Life Quality: A Regional Aspect*. Kazan: Kazan State University; Narbut, N.P., Trotsuk, I.V. (2018a). The social well-being of the post-socialist countries' youth (on the example of Russia, Kazakhstan and Czech Republic): Comparative analysis of value orientations (Part 1). *RUDN Journal of Sociology*, 18 (1); Narbut, N.P., Trotsuk, I.V. (2018b). The social well-being of the post-socialist countries' youth (on the example of Russia, Kazakhstan and Czech Republic): Comparative analysis of fears and hopes (Part 2). *RUDN Journal of Sociology*, 18 (2); Trotsuk, I.V., Grebneva, V.E. (2019). Possibilities and limitations of the main methodological approaches to the study of happiness. *Bulletin of the Moscow University. Series: Sociology and Political Science*, 25 (3); White, S.C. (2006). The cultural construction of well-being: Seeking healing in Bangladesh. WeD Working Paper 15. ESRC Research Group on Wellbeing in Developing Countries, University of Bath; Kuswanti, A., Saleh, A., Muzykant. V.L. et al. (2020). Effect of group participative communication towards Pekka economic empowerment. *International Journal of Advanced Science and Technology*, 29 (3).

factor; however, the absence of anomie or alienation does not necessarily reflect the presence of social well-being or determines it directly. The contemporary society and human life are too complex to be precisely measured in principle, not to mention such direct interdependencies. Similarly, no single social theory is pervasive in nature, so the chosen components or empirical indicators of social well-being are generally based on consensus. Furthermore, even individual components of social well-being are extremely complex, for instance, as if a clear social construct of the quality of life implies a multifactorial analysis ranging from personal well-being (or the positive collective attitudes towards social life to a broader social setting). The most general and broad definitions consider personal well-being as deeply embedded in social structures and communities and affected by innumerable social challenges and consequences that go beyond (emotional) happiness and the fulfilment of desires.

Thus, all methodological approaches to assessing well-being, whether using single measures, objective, subjective indicators or both, have their strengths and weaknesses. Although survey methods for measuring subjective well-being as happiness are regarded as valid, reliable and sufficiently universal for comparative studies (despite the absence of clear conceptual and operational definitions of happiness), there is still the lack of established criteria for choosing methodological approaches, except for the recognition that personal well-being as a rather subjective concept is more influenced by personal factors (e.g., family, health and other factors defined by individuals as constituting a good life) than external conditions. Despite the varying approaches, an increasing body of research advocates for a comprehensive well-being measure that considers the diverse cultural and temporal requirements together with our fundamental needs. Recognizing culturally specific well-being needs is essential for monitoring impacts of social change and evaluating the efficiency of policies on the quality of life. Many studies suggest incorporating social indicators into well-being assessment to encompass aspects like development or poverty reduction.

The theoretical-methodological basis of the study also lies in the systemic and resource approaches in the sociology of management, enabling the analysis of

technological developments in ensuring the social well-being of the Ghanaian population in relation to the activities of social management subjects. The theoretical foundation of the study incorporates the Technology Acceptance Model (TAM) and Technological Determinism (TD), which are based on the principles of complex structures, structural-functionalism, social-constructionist, and social engineering methods. These models integrate the functionalism of the structural design model with contemporary engineering and socio-cultural design. Within this framework, social well-being or 'social health' is primarily examined from the perspective of the social structures and functions it fulfils (in Durkheim's and Parsons' perspectives). The other aspects of the models are associated with characteristics of social actions (in Weber's and Habermas' perspectives), social design (in Berger–Luckmann' and Spector's perspective), and the approach to social engineering (in Popper's interpretation).

The **empirical and source base of the study**

The empirical study was conducted in Ghana, specifically in the Cape Coast Metropolis and Bolgatanga Municipality. The Cape Coast Metropolis has a population of 169,894, with 48.7% males and 51.3% females, and 23% living in rural areas[11]. In contrast, Bolgatanga Municipality has 131,550 residents, with 47.7% males and 52% females, and 50.2% residing in rural areas[12]. The target population included household members aged 18 and older who had resided in the respective areas for at least five months. The multi-stage sampling was employed, beginning with stratified sampling to create northern and southern strata to reduce sampling error and promote homogeneity. The second stage involved simple random sampling to select regional capitals, using a drawing method from two bowls labelled for the northern and southern regions. Yamane's formula for sample size determination yielded 399

[11] Ghana Statistical Service (2014a). 2010 Population and Housing Census. District Analytical Report. Cape Coast Municipality. URL: https://www2.statsghana.gov.gh/docfiles/2010_District_Report/Central/Cape%20Coast.pdf.
[12] Ghana Statistical Service (2014b). 2010 Population and Housing Census. District Analytical Report. Bolgatanga Municipality. URL: https://www2.statsghana.gov.gh/docfiles/2010_District_Report/Upper%20East/Bolga.pdf.

respondents for each area; however, the study expanded this to 700 respondents from Cape Coast and 400 from Bolgatanga to enhance accuracy and generalizability.

The data was collected from both primary and secondary[13] sources. Questionnaires served as the primary data collection tool, selected for their objectivity and ability to efficiently reach a large audience. Respondents answered five-point Likert scale questions, scored from strongly disagree (SD=1), disagree (D=2), neutral (N=3), agree (A=4), to strongly agree (SA=5). The questionnaire comprised seven sections, addressing socio-demographic characteristics, the essence of social well-being, factors influencing social well-being, the socio-economic state of Ghana, sociological analysis of well-being satisfaction, migration as a solution to social problems, and technologies to enhance social well-being. The secondary sources included a review of literature from:

– Ghana Statistical Service (GSS): The Ghana Living Standards Survey (GLSS) provides information for understanding and monitoring living conditions in Ghana. This includes the sixth and seventh rounds of the nationwide household survey and reports from the 2021 Ghana Population and Housing Census. Other

[13] See, e.g.: Adzinku, A. (2016). *Exploring Potential Interventions for Improving Affordable Housing for Low-Income Earners in Ghana.* Kwame Nkrumah University of Science and Technology; Atakora, A. (2016). Measuring the effectiveness of financial literacy programs in Ghana. *International Journal of Management and Business Research*, 3; Crawford, G. (2004). Democratic decentralisation in Ghana: Issues and prospects. *POLIS Working Paper*, 9 (9); Dary, S.K., Kuunibe, N. (2012). Participation in rural non-farm economic activities in Ghana. *American International Journal of Contemporary Research*, 2 (8); Dugbazah, J.E. (2007). *Gender, Migration and Rural Livelihood in Ghana. A case of the Ho District.* Centre for West African Studies, University of Birmingham; Gaisie, E. (2017). *Living Standards in Pre-Independent Ghana: Evidence from Household Budgets* (No. 7). The Historical Household Budgets Project; Gumah, B., Aziabah, M.A. (2020). "Our lives are affected by government agencies": Citizens' perception survey as a measure of public service efficiency in Ghana. *SAGE Open*, 10 (2); Lambon-Quayefio, M. (2017). Non-farm enterprises and the rural youth employment challenge in Ghana. *IDS Bulletin*, 48 (3); Micah, B. (2006). Ghana: Searching for Opportunities at home and abroad. URL: http://www.migrationinformation. org/USFocus/display.cfm; Oduro, A., Arhin, A., Domfe, G. et al. (2018). Building a more equal Ghana: A 5-point action plan to close the gap between the rich and the rest. URL: https://oxfamilibrary.openrepository.com/handle/10546/620549; Osei-Assibey, E. (2014). Nature and dynamics of inequalities in Ghana. *Development*, 57 (3); Owusu, V., Abdulai, A., Abdul-Rahman, S. (2011). Non-farm work and food security among farm households in Northern Ghana. *Food Policy*, 36 (2); Songsore, J. (2020). The urban transition in Ghana: Urbanization, national development and poverty reduction. *Ghana Social Science Journal*, 17 (2); Twumasi, M.A., Jiang, Y., Ameyaw, B., Danquah, F.O., Acheampong, M.O. (2020). The impact of credit accessibility on rural households clean cooking energy consumption: The case of Ghana. *Energy Reports*, 6.

references cover GSS reports from 2021[14], 2019[15], 2018[16], 2016[17], 2015[18], and 2014c[19].

- Organisation for Economic Cooperation and Development (OECD): Various reports from 2023[20], 2020[21], 2019[22], 2017[23], and 2012[24] on measuring well-being and progress.
- United Nations Department of Economic and Social Affairs: The 2020 World Social Report on Inequality in a Rapidly Changing World[25].
- International Organization for Migration (IOM): The 2000 World Migration Report [IOM] published by the United Nations Publications[26].

The preliminary data collection exercise was conducted in the Kumasi Metropolis to refine the research instruments. Subsequently, the data collection took place from December 1, 2021, to April 30, 2022, with six trained field assistants from the University of Cape Coast, fluent in local dialects. They participated in a three-day online training workshop focused on research objectives, data collection techniques, and ethical considerations. The survey achieved a high response rate, with 1,200 respondents selected and 1,100 completing the survey, resulting in a 92%

[14] Ghana Statistical Service (2021). Population and Housing Census. General Report: Age and Sex Profile. URL: https://census2021.statsghana.gov.gh/gssmain/fileUpload/reportthemelist/2021%20PHC%20General%20Report%20Vol%203B_Age%20and%20Sex%20Profile_181121b.pdf.

[15] Ghana Statistical Service (2019). Ghana Living Standards Survey Round Seven (GLSS7). URL: https://www.statsghana.gov.gh/gssmain/fileUpload/pressrelease/GLSS7%20MAIN%20REPORT_FINAL.pdf.

[16] Ghana Statistical Service. (2018). Ghana Living Standards Survey Round 7 (GLSS 7). URL: http://www2.statsghana.gov.gh.

[17] Ghana Statistical Service (2016). Ghana Labour Force Report. URL: http://www.statsghana.gov.gh/docfiles/publications/Labour_Force/LFS%20REPORT_fianl_21-3-17.

[18] Ghana Statistical Service (2015). Ghana Poverty Mapping. Poverty Assessment. URL: https://www2.statsghana.gov.gh/docfiles/publications/POVERTY%20MAP%20FOR%20GHANA-05102015.pdf.

[19] Ghana Statistical Service (2014c). Ghana Living Standards Survey Round 6: Labour Force Report. URL: https://statsghana.gov.gh/gssmain/fileUpload/Living%20conditions/GLSS6_Main%20Report.pdf.

[20] OECD (2023). Better Life Index. Organisation for Economic Co-operation and Development. URL: https://www.oecdbetterlifeindex.org.

[21] Organisation for Economic Co-operation and Development OECD (2020). "Business Insights on Emerging Markets 2020", OECD Emerging Markets Network, Paris.

[22] Organisation for Economic Co-operation and Development OECD (2019). How's Life in the Digital Age? Opportunities and Risks of the Digital Transformation for People's Well-being, Paris.

[23] Organisation for Economic Co-operation and Development OECD (2017). Key Issues for Digital Transformation in the G20, Report prepared for a joint G20 German Presidency/OECD Conference, Berlin. URL: https://www.oecd.org/g20/key-issues-fordigital-transformation-in-the-g20.pdf.

[24] Organisation for Economic Co-operation and Development OECD (2012). The Digital Economy. Competition Law and Policy OECD.DAF/COMP (2012)22. URL: https://www.oecd.org/daf/competition/The-Digital-Economy-2012.pdf.

[25] United Nations Department of Economic and Social Affairs (2020). World Social Report 2020: Inequality in a Rapidly Changing World.

[26] International Organisation for Migration IOM (2000). World Migration Report [IOM]. United Nations Publications.

response rate. The reliability of the research instrument was assessed for consistency and accuracy, while content validity was evaluated based on the research objectives. The data analysis was conducted using statistical software, Statistical Product for Service Solutions (SPSS) version 21.

The **scientific novelty of the study** includes:

1. Based on the systematization of the interdisciplinary approaches, the phenomenon of social-well-being is defined based on the knowledge of the subjects of social management for both fundamental and applied purposes.
2. The conceptual and empirical definitions (a combination of personal, relational and societal measurements) of social well-being were clarified based on the analysis of components of social-being in connection with migration trends and stages of development of various forms of trust under the formation of social institutions and the welfare state, including for the purposes of sociological monitoring in the context of social management.
3. The idea about the functional predictability of technologies on social-well-being was tested, and the importance of technology as the main factor in achieving the societal well-being of the subjects of social management was proved.
4. Based on the empirical findings, the key factors of social well-being of the contemporary Ghanian society were identified for the purposes of more targeted social policies: the majority of Ghanaian households attribute more importance to social actualization as the means of well-being, recognize personal well-being as a key factor and component of social well-being, and are engaged mainly in internal rather than external migrations; the major impact of migration on personal well-being is through an improved education, on relational well-being – through satisfied relations with family and friends, and on societal well-being – through an enhanced social actualization. Considering the totality of the predictive powers of technologies on social well-being, the study found that technologies influenced less than 15% of the variance in each of the personal, relational, and social well-being measures. The highest variance explained by technology was on

health as an indicator of personal well-being and the lowest was on social inclusion as one of the indicators of societal well-being.

Proposed provisions for the defence

1. Social well-being is considered as providing a strategic plan for addressing social issues in the contemporary society, using evolving technologies. Social well-being is interpreted as a sociological concept that incorporates various theoretical frameworks relevant to the study's focus. By employing a multidimensional approach that includes personal, relational, and societal dimensions, the study offers a nuanced understanding of how different factors interact to affect general social well-being. This comprehensive framework transcends simplistic measures that rely solely on economic (mathematical) indicators, providing a more comprehensive perspective on what constitutes well-being for individuals and communities.

2.1. The study draws on existing literature, adapts and develops social dimensions of well-being as proposed by notable scholars such as Keyes and Lopez (2002) and Koo et al. (2016). This grounding in established theories enhances the study's credibility and situates it within a broader academic discourse, reinforcing the significance of its findings regarding such components of societal well-being as social contribution, inclusion, integration, actualization, acceptance, cohesion, and institutional trust.

2.2. The examination of migration as a factor influencing social well-being addresses both internal and external migration trends, highlighting the relationship between mobility and well-being, thus enriching the discussion on demographic trends in Ghana. Ghanaian household members view migration as a strategic means to enhance well-being, with the most substantial effects observed on personal well-being, followed by societal and relational well-being.

3. In today's digital age, the impact of technology on social well-being is particularly relevant; thereby, the study investigates how various technologies affect personal, relational, and societal well-being, emphasizing the evolving nature of social interactions and the potential for technological advancements to improve well-

being in Ghana. It concludes that while technology has a limited influence on social well-being among Ghanaian households, it can address specific societal issues by enhancing personal, relational, and societal aspects of well-being.

4. The study identified stable and changeable components of social well-being in the context of the transforming social-institutional structure of the contemporary Ghanian society, which would contribute to the more targeted social policies as based on the comprehensive sociological measurement of social well-being. However, the study's regional focus on only two out of ten regions in Ghana presents a significant limitation: although such a targeted approach allows for an in-depth examination of social well-being in these areas, it may not adequately represent the broader regional populations in Ghana. As a result, the findings may not be generalizable to the entire Ghanaian context, limiting their applicability to other regions. Additionally, the reliance on structured questionnaires and quantitative analysis restricts the depth of responses and overlooks nuanced perspectives on social well-being. The cross-sectional nature of the study is also a concern, as the data collected at a single point in time may not capture changes in social, economic, or political conditions over time. To address these limitations, future research should include a broader range of regions across Ghana to enhance the generalizability of findings. Incorporating diverse regions would provide a more comprehensive understanding of social well-being in different contexts. Furthermore, to capture the depth of responses and nuanced perspectives, a mixed-methods approach could be employed. Combining quantitative surveys with qualitative interviews or focus groups would allow for a richer exploration of social well-being and its influencing factors. Longitudinal research would also be beneficial, enabling the tracking of changes in social, economic, and political conditions over time and providing insights into how these factors impact social well-being.

Theoretical significance of the study

This thesis discusses the sociological examination of social well-being, reflecting the increasing scientific awareness in the fields of social management and

social engineering. By clarifying and developing the categorical and methodological sociological framework, the phenomenon of social well-being is considered as a complex social phenomenon combining components of social health, social communication, and social engineering for purposes of further fundamental and applied studies of different aspects of social well-being, which can be based on the thesis' theoretical, conceptual, methodological and empirical fundings.

Practical significance of the study

The practical significance lies in (a) the identification of possibilities and limitations of the sociological diagnostics of social well-being in the monitoring mode for developing relevant social policy measures taking into account both existing risks and potential threats; (b) in the development and testing empirical basis for enhancing social well-being in contemporary settings. The suggested approach not only addresses current issues but also enables the anticipation of future social well-being challenges based on expert assessments collected during the preparatory phase of the study. The theoretical framework and empirical evidence obtained will underpin training programs and management courses on social well-being and can be incorporated into teachings such as sociology of management, sociology of public opinion, methodology of sociological research, social engineering, and the author's course Methodology of Development and Implementation of the Social Well-Being Measurement for Practical Purposes.

Reliability of the results

The reliability of the study is ensured through the application of both classical and contemporary sociological theories, appropriate research methods aligned with the research object, an integrated methodology for quantitative data collection, the use of the statistical analysis software for empirical data, and the implementation of social design algorithms and technologies. These measurement tools provided credibility and trustworthiness, ensuring consistent and accurate results free from errors or bias.

Approbation of the results

The main theoretical provisions and analytical conclusions of the thesis were presented and discussed at the scientific, methodological and scientific-practical conferences of various levels, round tables and seminars ("Russia and the Global South: On the Way to a New World Order" at the National Research University Higher School of Economics (2024); International Conference Session on "Public Administration and Development of Russia: Global Trends and National Prospects" and on "Public Administration and Development of Russia: Designing the Future" organized by the Russian Academy of National Economy and Public Administration (2022 and 2021); 21st and 20th International Social Congresses organized by the Russian State Social University (2021 and 2020); Bahá'í International Community's Webinar Discussion on Migration and Agriculture (Addis Ababa, Ethiopia, 2021); International PPE Conference 2020 organized by the Witten/Herdecke University (Germany, 2020) and 10th Anniversary International Conference of the Centre for Migration Studies at the University of Ghana (Accra, 2017)), were presented in scientific articles, including those published in the journals recommended by the Higher Attestation Commission under the Ministry of Science and Higher Education of the Russian Federation.

CHAPTER 1
THEORETICAL-METHODOLOGICAL FOUNDATIONS OF THE STUDY OF SOCIAL WELL-BEING

1.1. Interpretations of the term and approaches to its measurement

Understanding the concept of well-being is inherently complex and requires a comprehensive exploration of its definitions, interpretations, and measurements across various disciplines[27]. Researchers hold various perspectives on understanding and explaining well-being, as the term is utilized in different contexts and carries diverse meanings (White, 2006). For instance, in the realm of psychological and social sciences, well-being and happiness are often intertwined yet distinct constructs (Trotsuk, 2019). Due to its complex and debated nature, there is no universally precise definition of well-being. However, there is a general consensus that well-being is a valuable goal for societies to pursue (European Social Survey-ESS, 2016; Sarvimäki, 2006). It is crucial that well-being encompasses multiple aspects of life, such as physical health, mental well-being, emotional balance, social connections, and economic stability (Sarvimäki, 2006).

Primarily, literature presents hedonic and eudaimonic well-being as two distinct philosophical approaches to understanding and defining well-being (Kahneman, Diener & Schwarz, 1999; Keyes & Shmotkin Riff, 2002; Waterman, 1993). The hedonic approach aligns with utilitarian principles, emphasizing the role of pleasure and satisfaction in achieving overall well-being. This perspective suggests that a good life is one that maximizes enjoyment and minimizes suffering. Hedonic well-being typically involves two main components: life satisfaction and affective balance (Keyes & Shmotkin, Riff, 2002). Life satisfaction encompasses an evaluative aspect of well-being, where individuals assess their overall satisfaction with life. Affective balance refers to the ratio of positive to negative emotions experienced by

[27] European Social Survey (ESS): European Social Survey Round 7 Data (2016), Data file edition 2.0. *Norwegian Social Science Data Services*, Norway – Data Archive and distributor of ESS data for ESS ERIC.

an individual. A high level of hedonic well-being is characterized by frequent positive emotions and infrequent negative emotions (Kahneman et al., 1999).

On the other hand, the eudaimonic approach originates from Aristotelian philosophy, which emphasizes living in accordance with one's true nature, fulfilling one's potential, and focusing on meaning and self-realization rather than the pursuit of pleasure. Key components of eudaimonic well-being include personal growth, purpose in life, autonomy, environmental mastery, positive relationships, and self-acceptance. Personal growth refers to the development and realization of one's potential over time. Purpose in life involves having meaningful goals and a sense of direction. Autonomy is the ability to make independent choices and self-regulate behaviour. Environmental mastery is the capacity to manage life’s demands effectively. Positive relationships involve having satisfying and supportive social connections, while self-acceptance is a positive attitude toward oneself and one's past life experiences (Kahneman et al., 1999; Waterman, 1993).

Regarding the measurement of well-being, research suggests that well-being can be measured through a unifying framework consisting of objective and subjective components (ESS, 2016). Objective well-being refers to measurable material, external, and life conditions or resources that shape and contribute to an individual's quality of life (Helliwell, 2008). These conditions can be quantified and measured through indicators such as economic indicators (income, employment status, and wealth, which reflect material living standards), health indicators (physical health metrics, such as life expectancy, disease prevalence, and access to healthcare), education (levels of educational attainment and access to learning opportunities), environmental quality (factors such as air and water quality, noise levels, and access to green spaces), and social indicators (crime rates, community infrastructure, and civic engagement) (Helliwell, 2008).

Subjective well-being on the contrary encompasses people's personal perceptions and internal experiences, offering insights into how individuals interpret, evaluate, and feel about their lives (Diener, Suh, Lucas, & Smith, 1999). This is measured through dimensions such as life satisfaction, emotional well-being, and

cognitive well-being. Life satisfaction involves a cognitive evaluation of one's life as a whole or specific life domains (e.g., work, relationships). Emotional well-being refers to the balance of positive and negative emotions experienced by an individual on a daily basis. Cognitive well-being involves personal assessments and perceptions of one's circumstances, such as satisfaction with personal achievements or living conditions.

Examining the measurement of well-being using these two key measurement components that can inform policy decisions. These factors are significant as they help identify areas needing attention, understand relationships between conditions and outcomes, review and evaluate policy choices, refine implementation, and assess outcomes over time (ESS, 2016). Social researchers have advocated well-being to measure concepts of hedonic and eudaimonic well-being using the objective and subjective components. For example, Narbut and Trotsuk (2018) echoed the need to pay attention to how sociologist measure well-being. They identified three main sociological methods for examining social well-being to include; identifying value orientations, describing common societal fears, and assessing levels of happiness, along with the factors contributing to it and its sustainability. Similar to this, Durkheim's sociological concept of anomie and alienation is used to provide a theoretical basis for social well-being. However, the absence of anomie or alienation does not necessarily reflect the presence of social well-being (Durkheim, 1951). Smil (1993) suggests that in today's contexts, human well-being is too complex to be measured, and there is a need to pursue levels of living as the best concept to develop social indicators. Similarly, no single social theory is pervasive in nature, and the components of social well-being are generally based on consensus (Coates, Johnston, Knox, & Geografie, 1977). Furthermore, Fadda and Jiron (1999) explained that the quality of life is understood as a social construct that implies a multifactorial nature ranging from personal well-being to a broader environmental and social setting (Keyes, 1998).

According to Keyes (1998), the purpose of measuring social well-being is to substantiate and test a social model of well-being that reflects positive social health.

This model discusses the social nature of life, its problems, and provides criteria for assessing the quality of life. Additionally, Veenhoven (2010) defined social well-being as the positive collective attitudes towards social life. Koo, Yee, Nam & Kim, 2016) expanded the definition of social well-being to encompass individuals' perceptions of life, the quality of relationships, as well as the social conditions. These definitions suggest that human well-being is deeply embedded in social structures and communities, characterized by innumerable social challenges and consequences that go beyond happiness and the fulfilment of desires.

There are compelling practical reasons to prioritize and promote well-being. However, the ESS (2016) acknowledges that the methodological approaches to assessing well-being, whether using single measures, objective accounts, or subjective accounts, all have their own strengths and weaknesses. Although contemporary survey methods for measuring subjective well-being such as happiness are regarded as valid, reliable, and sufficiently universal for comparative studies, there remains a significant issue regarding the absence of clear conceptual and operational definitions of happiness (Trotsuk & Grebneva, 2019). Additionally, the lack of established criteria for choosing methodological approaches to its measurement necessitates thorough examination. Involving sociological considerations in well-being indicators is particularly important for the subjective concept, which is heavily influenced by personal factors (e.g., family, health) rather than external conditions (Narbut & Trotsuk, 2018). It is therefore necessary to further explore the sociological perspectives on well-being, as the existing literature and research on measuring and improving social well-being have not yet been adequately applied to the modern context of Ghanaians.

In recent years, there has been a surge in research focusing on the concept of well-being (Diener, Suh, Lucas, & Smith, 1999; Keyes, Schmotkin, & Ryff, 2002). Despite the varying approaches, an increasing body of research advocates for a comprehensive well-being measure that considers both the diverse cultural and temporal requirements, along with our fundamental needs (Fleche, Smith, & Sorsa 2011; Koo et al., 2016). Recognizing culturally specific well-being needs is seen as valuable

for monitoring the societal impacts of social change and evaluating the efficacy of specific policies on individuals' quality of life (Fleche et al., 2011). Furthermore, other studies suggest incorporating social indicators into well-being assessment to encompass aspects like development, progress, need fulfilment, and poverty reduction (Kahneman & Deaton, 2010; Coburn, 2004; Diener et al., 1999). These studies argue that well-being analysis should focus on internal factors defined by individuals as constituting a good life. These diverse studies underscore the importance of holistic factors such as demographic characteristics, activities, biological influences, and personality traits in positively assessing individuals' well-being.

Research indicates that the facets of well-being should complement each other (Dodge, Daly, Huyton & Sanders, 2012; Diener, 2009; Michaelson, Abdallah, Steuer, Thompson, & Marks, 2009). Importantly, this should prompt a much-needed consideration of the interconnectedness of various aspects of well-being. The ongoing debate on crucial issues related to indicators of quality of life suggests that a resolution may not be imminent. While numerous factors influence an individual's well-being and quality of life[28], assessing well-being should take into account the dynamics of social context and processes, as well as an individual's social interactions with others and the environment (Koo et al., 2016; Dodge et al., 2012).

In evaluating social well-being, individual actions are closely intertwined with social contexts. Attaining a high quality of life for an individual is not a solitary endeavour; it typically occurs within socially accepted modes of interaction within a community. Therefore, the personal aspects of how individuals engage with others and the societal characteristics of their environment are deemed crucial for social well-being. Social well-being primarily involves examining individuals' daily lives (personal), their relationships with others (relational), and the institutional and normative aspects of society (societal). Notably, social scientists indicate that the social aspects of well-being are intended to improve the quality of social connections and enhance the overall quality of society. Another study by Abbott and Wallace (2012)

[28] World Health Organisation-WHO (2006): Constitution of the World Health Organisation. URL: https://www.who.int/governance/eb/who_constitution_en.pdf.

on the social dimension of well-being highlighted a comprehensive concept known as social quality (SQ), which assesses the quality of individuals' everyday lives. Social Quality, in contrast to traditional methods like Gross Domestic Product (GDP) for measuring well-being based on economic or subjective criteria, seeks to advance the comprehension of social advancement through factors such as connectedness and the creation of a functional and supportive society conducive to individuals' quality of life (Abbott, & Wallace, 2012). Koo et al (2016) elaborate that the dimensions of social quality encompass social cohesion, socio-economic security, social inclusion, and social empowerment. Nevertheless, challenges within these dimensions of social quality include various risk factors, issues of trust, and instances of discrimination within societies.

As per Koo et al. (2016), the emphasis on effectively measuring social well-being encompasses the domains of social quality influenced by various conditional factors. Consequently, the assessment of social well-being involves incorporating individuals' perceptions of both micro and macro aspects of society, blending objective conditions with subjective views, and considering material as well as non-material conditions (Koo et al., 2016). These elements of social well-being are crucial because factors overlooked in either objective or subjective assessments are deemed vital to human well-being. In this context, assessing social well-being involves understanding individuals' feelings about their lives, relationships, and society. The study adapted and expanded upon the social dimensions of social quality and well-being as proposed by Keyes and Lopez (2002) and Koo et al. (2016), focusing on four key aspects: social cohesion, socio-economic security, social inclusion, and social empowerment. This framework is designed to address the research gaps identified in the current literature (Koo et al., 2016; Dodge et al., 2012; Diener, 2009; Michaelson, Abdallah, Steuer, Thompson, & Marks, 2009).

Thus, this study social well-being based on three dimensions namely personal, relational and social well-being. Personal wellbeing denotes person’s evaluation of overall life, acknowledging how they feel and think about themselves and determining how satisfied they are with their life in general (Koo et., 2016). Personal

wellbeing represents a personal aspect of quality of life that encompasses wealth, employment, the environment, physical and mental health, education, recreation and leisure time, social belonging, religious beliefs, safety, security and freedom (Word Health Organisation – WHO[14]). For the purpose of this study, the dimensions of personal well-being were education, health and employment. Relational well-being refers to the quality of relationships individuals have with others and their development of positive attitudes toward those around them (Koo et al., 2016). In this study, it is measured through two dimensions: relationships with family, friends, and neighbours, as well as body shape acceptance and stress management. Societal well-being reflects the quality of institutions, positive assessments of how a society functions, and optimistic views regarding its progress (Koo et al., 2016). For this study, societal well-being is assessed through the following dimensions:

- Social contribution involves the active participation of individuals, families, and communities in various socio-economic and socio-political needs, influencing areas such as the economy, employment, health, education, housing, recreation, culture, and civic engagement.
- Social inclusion and integration involve the active participation of individuals in society, making them feel that they belong to a community, feel important, value societal norms, share their views, and perceive others in society as reliable, kind, and honest.
- Social actualization refers to a positive view of societal progress, examining factors like community decision-making freedom, satisfaction with social status, knowledge acquisition, the role of social institutions, optimism about the future, and the perception of society as a supportive place to live.
- Social acceptance involves relying on neighbours for support, exhibiting kindness and altruism, showing concern for others' challenges, maintaining positive attitudes toward community members, and facilitating social interactions within the community.
- Social cohesion, referred to as the social glue, focuses on building connections to reduce exclusion and marginalization, providing protection against risks,

ensuring equitable access to resources, fostering belonging and inclusivity, creating opportunities for upward mobility, promoting equal employment, and driving cultural transformation.

- Institutional trust involves evaluating factors such as confidence in local government personnel, trust in public welfare organizations and their services, willingness to share sensitive information with state institutions, faith in societal values, and trust in local governance and civil organizations.

Historically, there exist plethora of theoretical and methodological aspects of well-being (Keyes, 1998; Durkheim, 1951). Starting with the structural-functionalist approach to well-being, Keyes (1998) elucidate that the primary focus of classical sociological theory is to attain social well-being (social health), or alternatively, to address its absence (Keyes, 1998). The concepts of social well-being and social improvements are widely described on the basis of various sociological perspectives (Keyes, 1998; Wilkinson, 1979). From a substantive perspective, the structural-functionalist perspective assumes that social well-being is epiphenomenal to the system of norms through which necessary social functions are performed. Durkheim and Marx, for instance, discussed several dimensions of positive social health. For Durkheim, the social version of well-being encompasses the potential benefits of social health, including social integration and cohesion, a sense of belonging and interdependence, and a sense of shared consciousness and collective fate (Durkheim, 1951). In Parsons' view, societal changes and developments are focused on the interconnections between social structures and functional prerequisites for adaptation, achievement of goals, incorporation and preservation of behaviours to generate successful social well-being (Dodds & Watts, 2004). Like Marx's conception of class consciousness, social integration entails the construal of collective membership and fate (Keyes, 1998).

An alternative viewpoint, the interactionist perspective, suggests that social well-being relies on interactions among individuals. This perspective traces back to various concepts such as human potential and self-actualization (Allport 1955; Maslow 1954), sustenance and community (Mead, 1934; Pepperdine, 2000), and

social contribution, efficacy, and responsibility (Bandura, 1977). These ideas have been further elaborated and articulated using terms like self-regarding sentiment (McDougall), self-realization (Homey), appropriate striving (Allport), and mature love (Fromm) (Wilkinson, 1973). For example, according to Marxian theory's dialectical materialism, social well-being is described as the result of an evolutionary process in which conflicting values representing the interests of social classes are eventually harmonized in a society that fully embodies the human potential for community (Ollman, 1971).

Throughout history, sociology emerged during the shift from an agrarian to an industrial society (Veenhoven, 2005). Tönnies (1979) distinguished between two societal forms: the traditional "Gemeinschaft" and the modern "Gesellschaft". While Tönnies (1979) viewed the development of Gesellschaft as an advancement over Gemeinschaft, Etzioni (1993) argued that the latter was a more livable social structure. This has led to a renewed interest in the concept of community within society. Recently, sociologists have conducted thorough investigations into the modern phenomenon of societal discontent, suggesting that life was more fulfilling in the past (Sanderson, 1995; Maryanski & Tyrner, 1992; Veenhoven, 2005). The process of modernization has been linked to a decline in well-being, with one theory proposing that humans have a natural inclination to form strong social bonds, such as small communities, close families, and united religious institutions (Veenhoven, 2005).

A multitude of contemporary societal trends have transformed the role of community in the lives of individuals (Wilkinson, 1979). Habermas's perspective on social health is informed by his comprehensive theory of societal evolution and modernization, which encompasses the interplay between communicative rationality and rationalization (McCarthy, 1978). Warren (1978) posited that a "Great Change" had occurred in modern civilisation as a consequence of the technological revolution, which had shifted the balance of importance at the local level from the horizontal to the vertical axis. One might inquire as to whether technology is a beneficial and useful reference point in contemporary mass society. In what ways is technology enhancing social well-being in the context of developing economies, such as Ghana?

The answers to such questions remain unresolved or only partially resolved by existing research and studies.

Sociological research on well-being can explore differences in personal, social, and technological expectations (Larson, 1992). The concept of self is intertwined with both public processes and private outcomes (James, 1890; Mead, 1934). A criticism of the structural functionalist approach is that social well-being depends not only on the adaptability of social structures and systems, but also on individuals realizing their potential (Wilkinson, 1973). Additionally, the interactionist perspective on social life and well-being, particularly through self-actualization, may be questioned in modern contexts, especially without technological involvement (Wilkinson, 1973). Nonetheless, it is clear that the importance of technology in the community realm for social well-being has increased in contemporary times. Therefore, society must adjust to a technologically shaped environment to enhance social well-being.

Another theoretical perspective, Postmodernism emerged in France during the 20th century, championed by early postmodernist philosophers like Jean Baudrillard, Jean-François Lyotard, Jacques Derrida, and Michel Foucault (Plachciak, 2010). This dissertation is informed by the philosophical and ideological foundations of postmodernism. It explains how the current idea of a sustainable standard of living is shaped by the functional tendencies of postmodernism in the contemporary world. Postmodernists hold the view that there is no objective reality, and that science, technology, reason, and logic are not vehicles of human progress but rather suspect instruments of established power (Plachciak, 2010). This postmodern thought stands in obvious opposition to the scientific worldview and the features of modernity as espoused by Auguste Comte, such as the concentration of work power in the city settings, the focus on material profit in work organization, the adoption and use of science and technology in manufacturing, the continuing hostility between workers and factory owners, the surging growing contrasts and social inequalities, and the economic system characterized by individual enterprise and free competition. However, both modernism and postmodernism subscribe to

common features of free choice, diversity, and the ability of critical expression (Plachciak, 2010).

In the era of a modernized world, the implementation of the idea of sustainable development is still faced with some challenges. The postmodern society aspires for the needs of people as consumers, but the modern society has subordinated these needs by huge consumption differences and placed them under an inseparable specific identity. What is good and ideal for society is determined by the popularity of some consummate groups gathering whole sets of subcultures around a certain style of life, such as "what to eat, what to wear, kinds of healthcare, model of car, motorbike, and many more" (Kuntz, 2012).

The postmodern view of Ghanaian society is that it is completely divided into two worlds: the first society with no development problems and the second society with an unending socio-economic problem. Social inequality has become a great issue of concern towards Ghana's attainment of the Sustainable Development Goals (SDGs) (Oduro, Arhin, Domfe, Alidu, Agyeman, Asimadu & Hall, 2018). The current Ghana Living Standards Survey (GLSS 7) data show wide gender and locality gaps in terms of access to basic development necessities such as education, health, and employment (GSS, 2019). The reason for this differentiation in creating an effective and equal social environment for Ghanaians is due to the elite and how political actors are connected to administering social goods, which might seriously benefit them economically but handicap the people and cause social inequality.

Postmodernists propose the conviction that a "new form of risk situation" should lead to a successful reflection of the necessity of anticipating, projecting, assessing, controlling, and preventing growing dangers and threats about the present and future generation's quality of life. They call for a postmodern morality and ethical perspective needed to build a solid foundation for a new paradigm of ethics. The use of contemporary technology gives people the ability to act in an immeasurable space-time reality at the same moment, allowing them to face its outcomes. This means that individualistic and traditional frames of ethics are not sufficient, and it has become prudent to make a new step towards a universal ethics that spells out the

meaning, role, and principle of responsibility, which would be widely comprehended and holistic in promoting values that overcome the limits of traditional, individualistic, and practically-materialistic anthropocentrism, while building possibilities for the implementation of sustainable development (Plachciak, 2010).

Just like any organization, society has evolved from historical perspectives, early thinkers, and traditional and development theories (Kwok, 2014). The modern state of development in Ghana has evolved around the foundations laid by these management theories. The Ghanaian society has a model of progressive transition from a "pre-modern" or "traditional" to a "modern" society (Aboagye-Attah, 2019). The today's assessment of Ghana's development state attempts to identify the socio-economic variables that contribute to socio-economic progress and development and seeks to explain the process of social evolution (GSS, 2019). However, much attention has been given to economic wealth and resources at the expense of social variables of development.

The assessment of development suggests that early, traditional, and behavioural theories of management have evolved to meet some of the modern practices of development. These theoretical considerations play a partial, yet important role in the modern development of the state. In the modern assessment, some states are classified as wealthier and more powerful in terms of technology, and their citizens are freer to enjoy a higher standard of living. Developments such as new data technology and the need to update some countries' traditional methods in transport, communication, and production make modernization necessary or at least preferable to the status quo.

Today, the perspectives of early thinkers and philosophers such as Adam Smith (1723-1790) and Jeremy Bentham (1748-1832), who held a strong belief in the capitalistic principle of individual pursuit of wealth and happiness, remain essential for the modern development needs of Ghanaians (Kwok, 2014). Similarly, the works of Max Weber (1864-1920), who identified seven characteristics of bureaucratic management of society, and the traditional theories and scientific management have some essential components for the modern development of the

Ghanaian state. The primary reliance of the traditional theories on production, management, organization, and association with technology and science is needed in the modern development of the states of the world (Kwok, 2014). Ghana, for instance, needs an upgraded but cheaper and accessible form of technologies to aid the human development process.

The behavioural theories, however, transcend beyond production, management, organization, technology, and science, and primarily pay much attention to how people might be impacted, and the way in which they react and are likely to react to the future (Kwok, 2014). Referencing one of the most prominent behavioural theorists, Elton Mayo, the importance of groups at work requiring sociological and psychological consideration is emphasized. The emphasis on employees' social and economic needs and the influence of the organization's social setting presents a key modern development gap in Ghana (i.e., the neglection of social needs in development). In the modern world, social equity and development cannot be achieved with robust technology and science alone. Instead, a focus on two competencies communication and teamwork is crucial.

The criteria for assessing modern development are, however, critiqued and questioned (Kendall, 2007). For example, the processes of evolutionary development of the most modernized societies in Europe and North America are caused by the processes of urbanization and reforms in innovation and industrialization, popularly termed as the transition to a post-industrial society (Gavrov & Klyukanov, 2015; Kendall, 2007). Critiques argue that modernization is linked to an overarching process of rationalization, and its increase within a society makes individuals become superficial to the family or community, or the fundamental unit of society. This study found that the theoretical and methodological foundations of classical sociological and evolutionary theories from the management era are robust and effectively support the contemporary development needs of the state. However, there is a need for theories that focus on reducing social inequality, promoting social equity, and fostering social development in Ghana, as many of the proponents of these theories are Western theorists.

Under this section there are three sub-tasks. The study first examined eleven socio-demographic characteristics of the respondents. The variables under investigation were sex, age, marital status, religious affiliation, ethnic group, forms of disability, educational status, employment status, household size, personal monthly income and household monthly income. The aforementioned characteristics were selected with the intention of ensuring that the sample was representative of the population in question and that the responses would align with the objectives of the study.

Table 1

Socio-demographic characteristics of respondents

Characteristics	Categories	%
Sex	Males	48.7
	Females	51.3
Age	18-28	36
	29-39	29.5
	40-50	22.2
	51-61	10.5
	62-72	1.8
Marital status	Single	42.2
	Married	44.4
	Separated/divorced	5.1
	Widowed	4.7
	Cohabiting	2.9
	Others, specify	0.7
Religious affiliation	No religion	4.4
	Catholic	35.6
	Protestant	19.6
	Pentecost/charismatic	29.1
	Islam	8.7
	Traditionalist	2.5
Ethnic group	Akan	66.5
	Ga-Dangme	3.3
	Ewe	12.4
	Guan	1.5
	Mole-Dagbani	6.2
	Frafra	6.5
	Others, specify	3.6

Characteristics	Categories	%
Forms of disability	No disability	95.3
	Physical	2.5
	Visual	0.7
	Hearing	1.5
Educational level	No formal education	6.9
	Primary education	6.9
	Middle/JHS	16.7
	SHS/Vocational/Technical	25.5
	Post-secondary/Tertiary	44
Employment status	Wage employment	30.9
	Self-employed with employees	23.6
	Self-employed without employees	16
	Contributing family worker	6.9
	Casual worker	10.5
	Unpaid apprentice	2.9
	Domestic worker	4.4
	Others, specify	4.7
Household size	1-5	52
	6-10	38.5
	11-15	7.6
	16-20	1.5
	21-25	0.4
Personal monthly income	Below GH¢ 100	8.7
	GH¢ 100-1000	61.5
	GH¢ 1100-2000	20
	GH¢ 2100-3000	4.7
	GH¢ 3100-4000	3.3
	GH¢ 4100-5000	1.1
	Above GH¢5000	0.7
Household monthly income	Below GH¢ 100	2.2
	GH¢ 100-1000	37.1
	GH¢ 1100-2000	30.5
	GH¢ 2100-3000	14.5
	GH¢ 3100-4000	6.2
	GH¢ 4100-5000	4
	Above¢ GH 5000	5.5

Source: Field Survey (2022)

The results presented in Table 1 indicate that the majority were female (51.3%), aged under 40 years old (65.5%), and that a greater proportion were married (44.4%). Most respondents (84.3%) indicated that they adhere to the Christian faith, with 35.6% identifying as Catholics, 29.1% as Charismatic/Pentecostals, and 19.6% identified as Protestants, while 8.7%t professed Islamic beliefs. Akan constituted the majority ethnic group of respondents (66.5%). The majority of respondents (95.3%) did not report any forms of disability.

Furthermore, many respondents (44%) had completed post-secondary or tertiary education. Although the respondents exhibited a diverse range of employment statuses, a greater proportion of them were engaged in wage employment (30.9%) than in domestic work (4.4%). A greater proportion of respondents (52.0%) were from households with one to five members. Approximately 62% reported an income of between GH¢100-1000 per month. In terms of household monthly income, approximately 40% of respondents' households earned between GH¢100-1000, while a small proportion (2.2%) earned below GH¢100.

The study presented findings on respondents' background information. Many authors of well-being studies have documented various findings on the socio-demographic characteristics of their respondents (GSS, 2021 & 2019; Kangmennaang, Smaleb & Elliotta, 2019; Himes, 2002). Table 1 shows that more than half (51.3%) of Ghanaian household members are female under the age of 40. The GSS (2021) corroborated these findings, stating that in Ghana, females outnumber males by 2.8% and the population is more youthful between the ages of 15 and 35. Himes (2002) further supported the findings that females outnumber males in all age groups.

In terms of marital status, the findings in Table 1 showed that more Ghanaian household members were married (44.4%). This is indicative of the GLSS 7 findings that 55.5% of the Ghanaian population aged 12 years and above had ever been married (married, consensual union, separated, divorced or widowed) (GSS, 2019). Almost all respondents (95.3%) did not have any form of disability. The findings in Table 1 also revealed that the majority of Ghanaian household members (84.3%)

believed in the Christian faith (i.e., 35.6% as Catholics, 29.1% as Charismatic/Pentecostals and 19.6% as Protestants) and belonged to the Akan ethnic group. Previous literature by Kangmennaang et al (2019) confirms that the majority of Ghanaians are Christians and belong to the Akan ethnicity. Furthermore, the results in Table 1 showed that less than fifty (44%) of the Ghanaian household members had completed post-secondary or tertiary education and only they were engaged in wage employment (30.9%). One of the reasons explained by Kangmennaang et al (2019) to support this finding is that almost half (46%) of Ghanaians have secondary school as their highest level of education and when it comes to the standard of living of Ghanaians, the majority of them live in deplorable conditions and have only relatively secure jobs. The growing dominance of non-wage employment as a source of income can be linked to the high rate of informal sector employment, which currently stands at over 80% nationally (Gaisie, 2017).

Moreover, Table 1 shows that the majority of Ghanaians (62.2%) earned between GH100 and GH1000 as their personal monthly income. In terms of total monthly household income, almost 40% of Ghanaian households earned between GH100-1000. Considering this, the annual household income (i.e., GH¢ 1000 × 12 months = ¢ 12000) is lower than the national average which is GH¢33,937 (GSS, 2019). In terms of household size, more than half of Ghanaian households (52%) had a household size of one to five members, which is in line with the national average household size of 3.8 (GSS, 2019).

The second task under this section was to analyze the components of social well-being and examine them in relation to the socio-demographic characteristics of the respondents. To accomplish this task, a descriptive analysis was conducted on the frequencies and percentages of personal, relational, and societal well-being, identified as the components of social well-being in Ghana (Table 2). The results presented in Table 2 indicate that 85.5% of respondents strongly agreed that personal well-being is a fundamental aspect of social well-being. Furthermore, 75% indicated a strong agreement that relational well-being is a key component of social well-being. A total of 80% indicated that societal well-being is a component of social well-

being. A comparison of the frequencies of personal, relational, and societal well-being revealed that the majority (85.5%) of respondents strongly agreed that personal well-being is a key factor and component of social well-being. This confirms that there are numerous factors that influence an individual's well-being and quality of life (WHO, 1996). Well-being is assessed within the dynamics of social context, processes, and an individual's social connections to people and the environment (Koo et al., 2016; Dodge et al., 2012).

Table 2

Components of Social Well-Being of Ghanaians

Components of well-being	Strongly disagree	Neutral	Strongly agree
	N (%)	N (%)	N (%)
Personal well-being	64 (5.8)	96 (8.7)	940 (85.5)
Relational Well-being	96 (8.7)	168 (15.3)	836 (76)
Societal Well-being	60 (5.5)	160 (14.5)	880 (80)

Source: Field Survey (2022)

Subsequently, a chi-square test for independence was conducted with the intention of determining whether the observed pattern was statistically significant in comparison to the expected pattern due to chance. Furthermore, the chi-square test for independence was employed to analyze and compare the relationships/associations between the levels of age of the respondents and personal well-being. The chi-square test for independence included the independent variable, namely the ages of household members, and the dependent variable, namely personal well-being. The results of this analysis are presented in Table 3.

H_0: There is no significant relationship between age distribution and personal social well-being

H_1: There is significant relationship between age distribution and personal social well-being

Table 3

Chi-square showing the relation between age and personal well-being

Age		Personal well-being			Total
		Strongly Disagree	**Neutral**	**Strongly Agree**	
18-28	Count	32	48	316	396
	Expected count	23	34.6	338.4	396
	% within age	8.1%	12.1%	79.8%	100%
29-39	Count	12	24	288	324
	Expected count	18.9	28.3	276.9	324
	% within age	3.7%	7.4%	88.9%	100%
40-50	Count	12	12	220	244
	Expected count	14.2	21.3	208.5	244
	% within age	4.9%	4.9%	90.2%	100%
51-61	Count	8	12	96	116
	Expected count	6.7	10.1	99.1	116
	% within age	6.9%	10.3%	82.8%	100%
62-72	Count	0	0	20	20
	Expected count	1.2	1.7	17.1	20
	% within age	0%	0%	100%	100%
Total	Count	64	96	940	1100
	Expected count	64	96	940	1100
	% within age	5.8%	8.7%	85.5%	100%
Pearson Chi-Square=22.89, df=8, P-Value=0.004 Likelihood Ratio=26.001, df=8, P-value=0.001 Nominal by Nominal- Cramer's V=0.102, P-Value=0.004					
a. 2 cells (13.3%) have expected count less than 5. The minimum expected count is 1.16					

Source: Field Survey (2022).

In Table 3, the difference between the distribution of observed counts and expected counts indicates an association between these variables. For instance, in the age group of 18-28 years, the observed count for "strongly agree" is 316, while the expected count is 388.4. Among individuals aged 18-28 years, 79.8% strongly agreed that personal well-being is a key component of social well-being, while 88.9% in the 29-39 age group held the same belief. Similarly, 90.2% of those aged 40-50 strongly agreed on this aspect, and 82.8% in the 51-61 age group strongly accepted the assertion. In the 62-72 age group, 100% strongly agreed that personal

well-being is a crucial factor in social well-being. This implies that that Ghanaians aged over 62 years (100%) strongly believed in personal well-being as a key component of social well-being.

Furthermore, in Table 3, the two cells (13.3%) with expected counts less than 5 do not violate the chi-square assumptions, which specify that cells with expected counts less than 5 should not exceed 20%. The chi-squared test of association revealed a significant relationship between age and personal well-being (X^2=22.89, df=8, N=1100, p=.0004<.05), leading to the rejection of the null hypothesis in favour of the alternative hypothesis stating a significant relationship between age distribution and personal well-being. The Cramer's V value (0.102, p=.0004<.05) indicated that age distributions have a small but significant effect size on personal well-being or quality of life. Based on the results in Table 3 Studies have confirmed the association between age and quality of life (Gambin, Molzahn, Fuhrmann, Morais & Paskulin, 2015; Soósová, 2016). In rural southern Brazil, being young has been linked to a lower quality of life (Gambin et al., 2015). In other research, Brazilians aged 60–69 years rated their quality of life lower in psychological and social connection areas, as well as overall quality of life, compared to those aged over 80 years, as assessed by the World Health Organization Quality of Life Questionnaire (WHOQOL–BREF) (Paskulin, Vianna, Molzahn, 2009). However, European research contradicts these findings. For example, Borglin, Jakobsson, Edberg, and Hallberg (2006) found a lower quality of life among the elderly in Sweden, while Soósová (2016) found a higher quality of life among the elderly in Slovakia.

The third research task under this section aimed to determine the essence of the concept of social well-being of the population in modern conditions by assessing whether the concepts of social contribution, social inclusion and integration, social actualization, social acceptance, social coherence, and institutional trust are essential to the Ghanaian population. A five-point Likert scale (strongly disagree, disagree, neutral, agree and strongly agree) was aggregated to a three-point Likert scale (strongly disagree, neutral and strongly agree) to show the frequencies and percentages of the concepts of social contribution, social inclusion and integration, social

actualisation, social acceptance, social coherence and institutional trust as presented in Table 4.

Table 4

The essence of the concept "social well-being"

Components	**Strongly disagree**	**Neutral**	**Strongly agree**
	N (%)	N (%)	N (%)
Social Contribution	76 (6.9)	152 (13.8)	872 (79.3)
Social Inclusion	88 (8)	132 (12)	880 (80)
Social Actualization	76 (6.9)	132 (12)	892 (81.1)
Social Acceptance	72 (6.5)	148 (13.5)	880 (80)
Social Cohesion	88 (8)	200 (18.2)	812 (73.8)
Institutional Trust	72 (6.5)	148 (13.5)	880 (80)

Source: Field Survey (2022)

It is noted in Table 4 that the essence of the concept of social well-being of the population in today's conditions according to the strongly agree responses from the respondents were as follows: social actualisation (81.1%), social contribution (79.3%), social inclusion and integration (80%), social actualisation, social acceptance (80%), social coherence (73.8%), institutional trust (80%). These results meant that the majority of Ghanaians (81.1%) attached more importance to social actualisation as a means of determining effective well-being in modern conditions. This means that Ghanaians believed social actualization to be the most important measuring rod for their social well-being because it features prominently in what gives meaning, hope, social positions and roles in life (Wissing, 2014). Additionally, social actualization forms the evaluative processes shaped by the extent of socio-cultural influences that affect individual appraisals of realities in society. For instance, individuals with a high degree of social actualisation are hopeful about the condition and future of society, recognise the potential that resides in a collective and believe that the world can change and improve for people like themselves (Keyes & Shapiro, 2004).

Based on the results in Table 4, social actualisation was selected for further analysis and normality test. The normality test included the dependent variable (social actualisation) and the independent variable (gender of the respondents). The social actualisation was an ordinal data set and the gender of the respondents was a nominal data set. According to Norman (2010), “parametric statistics can be used with Likert data, with small sample sizes, with unequal variances, and with non-normal distributions without fear of “'getting it wrong””. Thus, the essence of this normality test was to determine how the dependent variable (social actualisation) is approximately and normally distributed for each category of the independent variable (male and female) and to choose the appropriate statistical test; parametric or non-parametric.

The use of the Kolmogorov-Smirnov test with a sample size (n ≥1500), 2-tailed significant value (p>.000) and visual inspection of the histogram, normal Q-Q plots and box plots showed that social actualization was not approximately normally distributed for both males and females (APPENDIX A). This is because a skewness of -2.653, standard error SE= (0.106) with z-values of -25.0 and a kurtosis of 6.131, (SE=0.211) with z-values of +29.1 were recorded for males. A skewness of -1.752, SE= (0.103) with z-values of -17.0 and a kurtosis of 1.686, SE=(0.205) with z-values of +8.20 were also recorded for females. Therefore, the skewness and kurtosis Z-values of -25.0 and +29.1 for males and Z-values of -17.0 +8.20 for females violated the assumption that an approximately and normally distributed data should be between -1.96 and +1.96 (Mishra, Pandey, Singh, Gupta, Sahu & Keshri, 2019).

H_0: There are no significant differences in the nature of social actualization between male and female respondents.

H_1: There are significant differences in the essence of social actualization between male and female respondents.

Due to the non-normality test of the variables (i.e., the individual groups were not normally distributed), the study used the non-parametric test called the Mann-Whitney U test. The table rank provided information on the output of the actual Mann-Whitney U test, which showed the mean rank and the sum of the ranks for the two groups tested (i.e., males and females). The results presented in Table 3 showed a significant difference between the mean rank of males (571.19) and the mean rank of females (530.84), indicating that males had a higher essence of social actualization than females.

To evaluate the differences between the male and female groups using the Mann-Whitney U test statistics, Table 5 further indicated that the mean rank of essence of social actualization for males=571.19 (median=3, N=536) was significantly higher than the mean rank of essence of social actualization for females=530.84 (median=3, N=564); U=140064, Z= -3.022. p-value= 0.003, r= 0.15. This provided significant evidence to reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1) which states that: there are significant differences in the scores of the essence of social actualization between male and female respondents.

Table 5

The Mann U Test

Social actualization	Gender	N	Mean rank	Sum of ranks
	Males	536	571.19	306156
	Females	564	530.84	299394
Mann-Whitney U=140064.000 Z=-5.022 P-Value=0.003 Median: Male=3.0000 Median Female=3.0000				

In measuring the effect size, r, the following formula was used: $r = Z/(\sqrt{N})$,

Z is the Z statistic
N is the number of cases
$r = Z/ (\sqrt{N})$
$r = 5.022/ (\sqrt{1100})$
$r = 5.022/ (33.17)$
$r = 0.15$

According to Cohen (1988), r values above 0.1 can be described as small, values above 0.3 can be described as moderate, and values above 0.5 can be described as large. Thus, the effect size of 0.15 means that there is a small significant effect in the difference of the essence of social actualization scores for male group and female group. Moreover, the results in Table 5 showed that there are differences in sex segregation and the importance of social actualization. The sex distribution of social actualization showed that the essence of social actualization mean score rank for males= 571.19 (Median=3, N=536) were significantly higher than the essence of social actualization mean score rank for female group=530.84 (Median= 3, N= 564); *U*=140064, Z= -3.022. p-value= 0.003, r= 0.15. but with a smaller effect size of 0.15 (Cohen, 1998).

Literature reveals that changes in socio-historical explanations impact social actualization in terms of what individuals have and what they desire to attain in society (Osseiran-Waines, 1995). According to Osseiran-Waines (1995), gender has an impact on what people have and want in society, and there is a perceived gap that shows usefulness in what people have and what they want as objective social indicators. Generally, demographics, activities, biological impacts, and personality features influence people's social evaluations and ambitions in society (Diener, 2009). In contrast, studies have shown that there is no consensus on demographic characteristics such as sex and related to the elderly's aspirations and quality of life in society (Gobbens & Remmen, 2019). For instance, in Chen, Hicks and While's (2014) and Top, Eriş and Kabalcıoğlu's (2013) other studies have demonstrated no differences in the elderly's aspirations and quality of life in society.

1.2. International measuring standards

Several international studies measure well-being and rank countries based on various indicators. Indices like Human Development Index (HDI), World Happiness Report, OECD Better Life Index, Global Peace Index, Social Progress Index, Gallup Global Emotions Report, Legatum Prosperity Index, Canadian Index of Wellbeing (CIW) and Bhutan's Gross National Happiness Index represent a growing body of work that assesses well-being using economic, ecological, and social measures. These indices incorporate a variety of factors such as cultural identity, inequality, job security, health, community vitality, leisure, environmental concerns, and subjective perceptions, all critical for gauging national well-being (Davern et al., 2017).

One of the most notable measures of well-being is the Human Development Index (HDI), published annually by the United Nations Development Programme (UNDP). The HDI considers three dimensions: life expectancy at birth, education level (including mean years of schooling and expected years of schooling), and standard of living (measured by GNI per capita). This index provides a composite measure of human development (UNDP[29]). Table 6 shows that Ghana's HDI value for 2022 is 0.602, placing the country in the Medium Human Development category and ranking it 145th out of 193 countries and territories. The most recent years demonstrate a consistent increase in HDI, with 2022 achieving a score of 0.602. From 1990 to 2022, Ghana's HDI score rose from 0.445 to 0.602, reflecting a positive change of 35.3% and indicating advancements in health, education, and living standards.

[29] UNDP (2023). Human Development Index. United Nations Development Programme. URL: https://hdr.undp.org/content/human-development-report-2023-24.

Table 6

Human Development Index (HDI) of Ghana

Year	HDI	HDI change from previous year
2022	0.602	+0.002
2021	0.600	-0.001
2020	0.601	+0.002
2019	0.599	+0.010
2018	0.589	+0.004
2017	0.585	-0.001
2016	0.586	0.000
2015	0.586	+0.004
2014	0.582	-0.005
2013	0.587	+0.004
2012	0.583	+0.004
2011	0.579	+0.008
2010	0.571	+0.008
2009	0.563	+0.005
2008	0.558	+0.011
2007	0.547	+0.010
2006	0.537	+0.008
2005	0.529	+0.012
2004	0.517	+0.007
2003	0.510	+0.004
2002	0.506	+0.007
2001	0.499	-0.001
2000	0.500	+0.006
1999	0.494	+0.006
1998	0.488	+0.005
1997	0.483	+0.006
1996	0.477	+0.005
1995	0.472	+0.007
1994	0.465	+0.002
1993	0.463	+0.006
1992	0.457	+0.005
1991	0.452	+0.007
1990	0.445	-

Source: United Nations Development Programme [UNDP] (2024)

Despite the overall positive trend, there are year-to-year fluctuations in HDI scores. For example, in 2014, Ghana's HDI experienced a slight decrease, dropping to 0.582 from a score of 0.587 in 2013. Such declines reflect the economic challenges or setbacks in education or health services during those years. The most significant annual increase occurred between 2018 and 2019, with the HDI rising from 0.589 to 0.599 (+0.010), indicating substantial improvements in one or more of the HDI components. An increasing HDI score correlates with successful interventions in the education and health sectors, while any declines warrant a reevaluation of existing strategies.

Another international measure of well-being is the World Happiness Report (WHR) with the 2024 rankings based on a three-year average of each nation's population assessment of quality of life, using factors such as GDP, life expectancy, having someone to count on, a sense of freedom, generosity, and perceptions of corruption (Helliwell, Layard & Sachs, 2024). In utilizing, the Cantril ladder life-evaluation question (on a scale from 0 to 10), Finland ranks at the top with a score of 7.741, while Afghanistan sits at the bottom with a score of 1.721. The Nordic countries continue to dominate the happiness charts, with Finland remaining the happiest nation for the seventh consecutive year, followed closely by Denmark, Iceland, and Sweden (Helliwell et al., 2024).

In Africa, the WHR 2024 report identifies the top ten happiest countries on the continent, with Libya leading the list with a happiness score of 5.866, ranking 66th globally. Following closely is Mauritius, with a score of 5.816, earning the 70th position worldwide. South Africa, with a score of 5.422, ranks 83rd globally. Algeria, placing fourth with a score of 5.364, ranks 85th globally. Congo (Brazzaville) and Mozambique follow, with scores of 5.221 and 5.216, ranking 89th and 90th globally, respectively. Gabon, with a score of 5.106, ranks 95th in the world, while Ivory Coast, scoring 5.08, ranks 96th globally. Guinea and Senegal round out the list, with scores of 5.023 and 4.969, ranking 97th and 99th globally, respectively (Helliwell et al., 2024).

This ranking underscores the diverse experiences of happiness across African nations. Factors such as community support, culture, and governance play significant roles in shaping individual well-being, revealing that happiness is influenced by a complex interplay of social, economic, and cultural elements. One notable country absent from the top ten happiest nations in Africa is Ghana, which is ranked 120th in the world out of 143 countries. This suggests that there is a need for in-depth research on the evaluation of quality of life, life expectancy, reliable support systems, a sense of freedom, generosity, and perceptions of corruption, all of which will influence policy development and implementation aimed at enhancing well-being for Ghanaians (Helliwell et al., 2024).

There is also the Social Progress Index, developed by the Social Progress Imperative, measures the extent to which countries provide for the social and environmental needs of their citizens. It includes 54 indicators across three broad dimensions: basic human needs, foundations of well-being, and opportunity. Ghana ranks 110th out of 169 countries in the 2023 Social Progress Index. This index assesses how well countries address the social and environmental needs of their citizens beyond just economic factors (Social Progress Imperative[30]).

Additionally, the OECD Better Life Index allows for a more nuanced analysis by allowing users to prioritize different aspects of well-being according to their values. It includes 11 dimensions: housing, income, jobs, community, education, environment, governance, health, life satisfaction, safety, and work-life balance (OECD, 2023). Furthermore, the Global Peace Index, published by the Institute for Economics and Peace (IEP)[31], measures the relative position of nations' and regions' peacefulness. It uses 23 indicators, grouped into three main categories: ongoing domestic and international conflict, societal safety and security, and militarization (IEP, 2023). Moreover, the Gallup Global Emotions Report measures positive and negative experiences worldwide. This report is based on over 151,000 interviews in more than 140 countries and regions, providing a snapshot of the emotional states of the

[30] Social Progress Imperative (2023). Social Progress Index. URL: https://www.socialprogress.org.
[31] Institute for Economics and Peace (IEP) (2023). Global Peace Index. Institute for Economics and Peace. URL: https://www.economicsandpeace.org/global-peace-index.

world's population (Gallup, 2023). Finally, the Legatum Prosperity Index[32] measures prosperity based on a wide range of factors including wealth, economic growth, education, health and quality of life. It covers 167 countries and uses 104 different variables (Legatum Institute, 2023).

Critics argue that these international indices for measuring well-being have demonstrated potential as useful guides for effective policy in countries such as Canada, Bhutan, Denmark, and Finland. However, their implementation for assessing national well-being presents significant challenges in many lower middle-income countries (LMICs) in sub-Saharan Africa, including Ghana, due to variations in cultural identities, community vitality, environmental issues, and subjective perceptions (Davern et al., 2017; Kangmennaang et al., 2019).

Ghana recognizes decentralization as a crucial mechanism that enhances local democracy, community participation, well-being and development (Sana, 2011). Throughout the 19th and 20th centuries, many developing nations have undergone significant political and administrative reforms, leading to the development of various models for evaluating the effectiveness of state bodies' activities in both domestic and international contexts (Crawford, 2004; Nagimova, 2010). Countries in Asia, Latin America, and Africa have adopted decentralization and implemented new strategies for economic, social, political, and administrative arrangements to carry out development programs and projects since the 1970s. This has sparked increased interest among politicians and policymakers in delegating government functions to lower levels (Rondinelli, McCullough & Johnson, 1989).

However, the successful adoption of decentralization in public management has not been universal across all countries (Wunsch, 1995). During the colonial period in African nations, local chiefs resisted decentralization and "the dual mandate" out of concern that their involvement would serve to legitimize colonial rule, resulting in power remaining centralized in the metropolis while the colonies were relegated to the status of mere "peripheries". To address this historical imbalance, various governments in countries such as Kenya and Tanzania in Eastern Africa, Sudan

[32] Legatum Institute (2023). Legatum Prosperity Index. URL: https://www.prosperity.com.

in Northern Africa, Zambia in Southern Africa, and Ghana, Nigeria, and Mali in West Africa initiated decentralization policies and programs (Olowu, 1995). These initiatives aimed to foster greater popular participation and ownership of governance processes by transitioning from a top-down command approach to a more consultative process, transferring power, authority, functions, competencies, and resources to the district level (Sana, 2010).

In 1992, Ghana adopted a new Constitution as it transitioned back to democratic governance. Chapter 20 of this Constitution mandates that Ghana establish a decentralized system of local government and administration to the greatest extent possible. The Constitution further specifies that the decentralization of local government should be carried out through legislation enacted by Parliament, transferring powers, responsibilities, and resources from the central government to local authorities. This transfer is intended to empower local governments to plan, initiate, coordinate, manage, and implement policies concerning all matters affecting the people within their jurisdictions. The Local Government Act of 1993 (Act 462), particularly section 79 (1, 2, and 3), and the National Development Planning Systems Act of 1994 (Act 480), specifically Section 1 (3, 4) and Sections 2 to 11, bestow various powers on local governments. These powers include the ability to borrow, invest, charge interest on contracts, provide services through contracts, engage in joint ventures with other entities, and levy fees. With these constitutional powers, Metropolitan, Municipal, and District Assemblies (MMDAs) in Ghana have been able to formulate effective development plans and programs aimed at fostering the socio-economic advancement of the population (Sana, 2010).

Apart from the international indices for measuring well-being, in 1985, PNDC Law 135 established the Statistical Service to facilitate the collection, analysis, and publication of statistical data on economic and social issues. Since then, Ghana has historically focused on addressing the economic, social, and ecological aspects of well-being. The Ghana Living Standard Survey offers methodological insights for comprehending and tracking well-being indicators, covering demographic details of households, education, healthcare, employment, migration and remittances,

information and communication technology (ICT), tourism, housing and public services, agriculture, non-agricultural services, financial services, anthropometry and assets, family management, peace and security, and data protection awareness in Ghana (Ghana Statistical Services, 2019).

This essential data on Ghana's social, demographic, and economic household characteristics serves as the basis for policymakers to develop strategies to achieve the Sustainable Development Goals (SDGs) related to eradicating poverty, ensuring food security, and promoting good health and well-being for all Ghanaian households. However, the presence of notable social stratification and disparities poses challenges in understanding, evaluating, and attaining the SDGs, which aim to eliminate poverty while advocating for effective social safety nets, equitable access to economic resources, basic services, and reducing vulnerability to socio-economic and climate-related risks for all (Hujo, 2021).

Ghana's methodology for poverty assessment has evolved over time (Aboagye-Attah, 2019), aligning with recommendations from international institutions like the World Bank, the International Monetary Fund (IMF), and the United Nations Development Programme (UNDP). The United Nations has urged Ghana to embrace a more comprehensive approach to measuring poverty and living standards to identify and tackle the root causes of underdevelopment, poverty, and household-level challenges. These approaches to measuring poverty and well-being encompass several key methodologies (Aboagye-Attah, 2019).

For instance, the Cost of Basic Needs (CBN) is one such method that assesses poverty levels by calculating the consumption or income required for households to meet their daily nutritional needs. This approach provides a clear benchmark for understanding the economic conditions necessary for maintaining basic health and nutrition. Another significant framework is the Capability Approach, proposed by Amartya Sen in 1993. This approach offers a comprehensive analysis of multidimensional indices of poverty and welfare, grounded in the principles of the Human Development Index. It shifts the focus from mere income levels to broader notions of freedom and well-being, emphasizing the real opportunities individuals are to lead

fulfilling lives. By considering factors such as education, health, and social inclusion, the Capability Approach highlights the importance of personal agency and the personal well-being. Additionally, the Multidimensional Poverty Index (MPI) represents a novel way to measure poverty. Unlike traditional methods that rely solely on income, the MPI aggregates indicators across various dimensions of deprivation, leading to a binary classification of individuals as either poor or non-poor. This comprehensive approach allows for a deeper understanding of the multiple facets of poverty, providing insights into the specific areas where individuals may be lacking.

The monetized consumption and income approaches are two common methods used to measure well-being in Ghana. The standard of living of a household is evaluated by total consumption expenditure, which differentiates between the poor and non-poor based on their combined spending on food and non-food items (GSS, 2018). This relative measure of poverty aligns with the European Commission's definition of poverty as a state of deprivation, wherein individuals are considered to be living in poverty if their income and resources are insufficient to maintain an acceptable standard of living in their society (Aboagye-Attah, 2019).

A preliminary review of Ghana’s socio-economic conditions reveals that objective economic indicators often overlook ecological and social systems. Researchers have uncovered flaws in various approaches to measuring poverty, including those based on monetized consumption and income, basic needs, capabilities, and the Multidimensional Poverty Index (MPI) (Duclos & Tiberti, 2018; Titumir & Rahman, 2013). For instance, Titumir and Rahman (2013) have critiqued the income-based approach, arguing that it can exacerbate the risk of falling into poverty as it fails to account for fluctuations in employment status that directly affect income levels. Moreover, Duclos and Tiberti (2016) pointed out the absence of essential qualities like monotonicity, sensitivity to different levels of deprivation, and continuity in multidimensional poverty indices, suggesting these aspects need more consideration.

Over time, these measurement strategies have proven unsustainable. Particularly in Ghana, the heavy reliance on income, monetary, and economic indicators

(like GDP) for assessing well-being (Aboagye-Attah, 2019) overlooks subjective and social dimensions, which are also crucial for ensuring equity and social justice in development. The assessment of national well-being should not rely solely on economic indicators, as broader perspectives are essential for a comprehensive understanding (Stiglitz, 2012).

Based on the review of Ghana's current HDI position, this study advocate for an imperative measurement of well-being that aimed at achieving social equity rather than GDP. In that sense, Ghana needs measurement of well-being that covers personal (overall satisfaction of current life), relational (contact frequency and subjective quality relations) as well as societal (social integration, social acceptance, social contribution, social actualization, social coherence and institutional trust) (Koo et al., 2016).

Ghana's current measures of well-being and socio-economic development status are founded on multifaceted indicators across various domains. These encompass social indicators (education, health, housing), economic indicators (economic activity, household expenditures, financial services), household agriculture, non-farm businesses, migration, information and communication technologies, governance, peace and security. Reviews and evaluations of Ghana's present socioeconomic conditions, drawing on data from the Ghana Living Standards Survey rounds 6 and 7, show steady gains in socioeconomic development. However, how to maintain this progress remains uncertain (GSS, 2014 & 2019).

Several factors could potentially jeopardize citizens' future welfare, especially given the significant social inequalities in the distribution of socioeconomic gains. For example, the GLSS 6 and 7 reports highlight major gaps between males and females across socioeconomic development metrics (GSS, 2014, 2019). Comparisons reveal clear disadvantages for females in educational attainment, healthcare access, and public safety. Similarly, echoing Karl Marx's classification of societies by economic systems, Ghana's rural inhabitants could be seen as in a state of subservience to production and estranged from basic products of Ghanaian society. Rural

residents struggle to find jobs, earn low wages, and face challenges financing agricultural and non-farm ventures (GSS, 2014, 2019).

Under section, the study provides results on the overview of the current levels of socio-economic development in Ghana. This task presents the current overview of the levels of socio-economic development in Ghana. The findings covered the socio-economic levels of Ghana in five ways:

(1) Social level (education, health, housing).
(2) Economic level (economic activity, household expenditure, financial services).
(3) Agriculture (household farming),
(4) Non-farm enterprises (manufacturing, service),
(5) Governance, peace, and security.

This information is crucial for explaining the current state of Ghana and its socio-economic development levels using descriptive statistics and inferential statistics. Additionally, a Pearson correlation analysis was conducted to determine the relationships between the socio-demographic characteristics of the respondents and the variables for Ghana's socio-economic levels. The study applied Moore, Notz & Flinger's (2013) rule of thumb for interpreting the strength of the association between two variables based on the value of "r," presented as follows: $r < 0.25$ (no relationship), $0.25 < r < 0.5$ (weak relationship), $0.5 < r < 0.75$ (moderate relationship), and $r > 0.75$ (strong relationship).

In Table 7, the current social level of Ghana is analysed using three variables: education, health, and housing. Regarding education, the majority of respondents believed in encouraging school enrolment (77.1%), while the remaining respondents focused on access to educational resources (52.4%), higher expenditure on education (70.5%), higher literacy skill levels (66.4%), and the belief that being educated provides job prospects (59.6%). It is evident in Table 7 that the majority (77.1%) of Ghanaian household members are enrolled in schools, and 70.5% of them spend more on education. The estimated population attending school in Ghana is high, and higher school enrolment suggests that education is an excellent measure of quality

of life (GSS 2016 & 2019; Melnic & Botez, 2014). Furthermore, GSS (2019) confirms that annual expenditures on education per household member are higher, especially with a widening educational expenditure gap among households in the capital city of Ghana, Accra, urban, and rural areas. However, according to Schuetz, Ursprung, and Woessman (2005), educational spending is not significantly associated with the degree of educational opportunity realized.

Table 7

The current social level of Ghana

Statements	**Strongly disagree**	**Neutral**	**Strongly agree**
	N (%)	N (%)	N (%)
School attendance/enrolment is encouraging	88 **(**8)	164 **(**14.9)	848 **(**77.1)
Access educational resources	260 (23.6)	264 (24)	576 (52.4)
Expend high on education	168 (15.3)	156 (14.2)	776 (70.5)
Literacy skills	100 (9.1)	272 (24.7)	728 (66.2)
Education offers job prospect	248 (22.5)	196 (17.8)	656 (59.6)
High incidence of ill-health	532 (48.4)	232 (21.1)	336 (30.5)
Frequent visit to Health facilities	492 (44.7)	264 (24)	344 (31.3)
Access to quality healthcare	472 (42.9)	200 (18.2)	428 (38.9)
Expend high on health	524 (47.6)	216 (19.6)	360 (32.7)
Health insurance bearer	160 (14.5)	168 (15.3)	772 (70.2)
Afford decent house	748 (68)	188 (17.1)	164 (14.9)
Afford utility bills	256 (23.3)	236 (21.5)	608 (55.3)
Access constant water supply	168 (15.3)	172 (15.6)	760 (69.1)
Access constant electricity supply	712 (64.7)	232 (21.1)	156 (14.2)
Access to toilet facilities	216 (19.6)	140 (12.7)	744 (67.6)
Access to solid waste disposal	324 (29.5)	160 (14.5)	616 (56)

Source: Field Survey (2022)

Regarding health, only 30.5% of the respondents reported a high incidence of ill-health. Approximately 44.7% of Ghanaian household members do not visit health facilities regularly, 42.7% do not have access to quality healthcare, and 47.6% do not spend more on health because the majority (70.2%) have health insurance coverage. In terms of health, the results in Table 7 showed that only a few (30.5%) of Ghanaian household members have a high incidence of ill-health, and 70.2% do not spend more on health because the majority of them are health insurance bearers.

Yonk, Smith and Wardle (2017) supported this finding that prioritizing the health of individuals is a good sign of quality of life because at the micro level, a healthy individual has a better chance of working to meet his or her fundamental necessities, and at the macro level, the productivity of healthy employees tends to boost the country's gross domestic product. Their findings further reflected on the importance of Health Insurance coverage policy, indicating that the number of people with health insurance in a community reflects access to healthcare. For instance, in the USA, all forms of insurance including government programs such as Medicaid and Medicare help a proportion of the population meet basic health needs.

In terms of housing, the majority of respondents (68.9%) strongly disagreed that they can afford to rent a decent house. Additionally, 64.7% of Ghanaians face challenges with constant access to electricity. However, additional findings revealed that respondents strongly agreed on their ability to pay utility bills (55.3%), have access to water supply (69.1%), toilet facilities (67.6%), and waste disposal (56.0%). Thus, the study found that the majority of Ghanaians (68.0%) cannot afford to rent a decent house. Affordability is one of Ghana's most visible housing issues due to insufficient housing units and access to housing for low-income earners in Ghana's cities remains a challenge (Adzinku, 2016). The study also found that 64.7% of Ghanaian household members face challenges in accessing a constant supply of electricity. This is confirmed by a report from the GSS (2018) that only a proportion of Ghanaian household members have access to electricity.

Table 8

Multiple correlation showing the association between age and education, health and housing

		Age	Education	Health	Housing
Age	Pearson	1	0.63*	0.87**	-0.001
	Sig. (2-tailed)		0.035	0.004	0.962
	N	1100	1100	1100	1100
*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).					

Source: Field Survey (2022)

H_0: Age has no relationship with education, health, and housing.

Further analysis conducted in Table 8 showed the association between age and the variables used to measure the social levels of Ghana (education, health, and housing). In Table 8, a Pearson's correlation analysis indicated a moderate, positive, and significant association between age and educational level: $r = 0.63$, $N = 1100$, $p < 0.05$. The results found that age is significantly related to educational needs. Many studies have confirmed the relationship that exists between age and education (Monaghan, 2021; Burnett, 2014). Burnett (2014) confirmed that older age groups have experienced greater declines in educational inequality compared to younger age groups. Monaghan (2021) corroborated that age diversity influences educational enrollment and over one-third of American degree-seeking undergraduates are aged 25 or older.

Similarly, the Pearson's correlation results in Table 8 showed a strong, positive, and significant association between age and health: $r = 0.87$, $N = 1100$, $p < 0.01$. Wang, Li, Glicksberg, Israel, Dudley & Ma'ayan's (2017) found out that age predicted healthcare. They explained that the ages of the youngest and oldest patients were more accurately predicted, while patients aged between 40 and 60 years were the least accurately predicted.

However, the findings further showed no association between age and housing needs: $r = -0.001$, $N = 1100$, $p > 0.05$. In contrast to this study's findings, Takats (2012) revealed that age has associations with house prices in the sense that demography boosted advanced economy real home prices by roughly 30 basis points per year and aging will lower them by around 80 basis points per year in the next 40 years compared to neutral demographics. Singh (2018) further showed that the working-age population has a considerable favourable influence on real estate and stock values. His study found no evidence for negative housing wealth effects on aging due to factors such as a lack of state-funded health and old-age safety nets, reliance on family for social insurance, and strong bequeath motives rooted in the social configuration in contrast to evidence for advanced countries.

The findings revealing the Economic Level (work-life activity, household expenditure, financial services) of Ghana were presented in Table 9 and Table 10.

Table 9

The current economic level of Ghana

Statements	**Strongly disagree**	**Neutral**	**Strongly agree**
	N (%)	N (%)	N (%)
Availability of various job for job seekers	596 (54.2)	204 (18.5)	300 (27.3)
Satisfaction with current work	660(60)	184 (16.7)	256 (23.3)
Work hours yields equivalent income	464 (42.2)	256 (23.3)	380 (34.5)
Existence of gainful employment opportunities for the youth	580 (52.7)	152 (13.8)	368 (33.5)
Existence of Child labour	560 (50.9)	180 (16.4)	360 (32.7)
Knowledgeable on the component of HH expenditures	176 (16)	220 (20)	703 (63.9)
Daily consumption expenditures	108 (9.8)	212 (19.3)	780 (70.9)
Shelter/accommodation expenditures	644 (58.5)	172 (15.6)	284 (25.8)
Health expenditures	592 (53.8)	200 (18.2)	308 (28)
Environment expenditures	472 (42.9)	228 (20.7)	400 (36.4)
Family contingency expenditures	628 (57.1)	160 (14.5)	312 (28.4)
Access to financial insurance services	548 (49.8)	260 (23.6)	292 (26.5)
Credit from banks	524 (47.6)	208 (18.9)	368 (33.5)
Credit from family/friends	636 (44.4)	164 (24)	348 (31.6)
Credit from government	468 (42.5)	272 (24.7)	360 (32.7)
Collateral asset to secure credit	524 (47.6)	204 (18.5)	372 (33.8)

Source: Field Survey (2022)

Work-life activities, household expenditures, and financial services were the variables used to measure the current economic level of Ghana. The interpretation of economic activity in Table 9 revealed that more than half of the respondents (54.2%) did not believe in the availability of various jobs for potential job seekers. 60% are currently not satisfied with their jobs, and more than 40%' working hours do not yield equivalent income. About 50% believed that the youthful population is not gainfully employed, while 50.9% of them are not aware of the activities of child labour. Therefore, more than half of Ghanaian household members (54.2%) mentioned the unavailability of jobs for potential job seekers and the lack of gainful

employment opportunities for the youth (52.7%). Similarly, many Ghanaian household members (60%) expressed dissatisfaction with their current jobs. This is supported by the World Bank (2020) report, which stated that Ghana has one of the highest unemployment rates in Sub-Saharan Africa, with 12% youth unemployment and over 50% underemployment, both higher than the overall unemployment rates. Other empirical literature indicates that the unemployment rate among the young is higher than among older individuals (Sackey & Osei, 2006). Reasons cited for unemployment among younger workers include inexperience, lower labour market skills, lower costs, and greater barriers to job access (Baffour-Awuah, 2013; Sackey & Osei, 2006). Considering these factors, those who are already employed are more susceptible to labour layoffs than older cohorts, leading to higher levels of dissatisfaction (Anyanwu, 2013).

Additional findings in Table 9 revealed that many respondents (63.9%) have more knowledge about the components of their household expenditures. Approximately 70.9% of the respondents' spending is on daily household consumption. Unlike consumption, 58.5% of the respondents do not spend on shelter/accommodation, 53.8% do not spend on health, 42.9% do not spend on the environment (39.6%), and 57.1% do not spend on family contingency expenses. Supporting these findings, Taylor, Jenkins, and Sacker (2011) assert that households have knowledge on managing earnings and making financial decisions to identify appropriate products and services for household members. GSS (2019) confirms that out of the total annual expenditure by all households of GH¢93,858 million, food (actual and imputed) expenditure accounts for 42.9%. Other research indicates that urban families prefer to increase their consumption based on their income level and increment to enhance their lifestyle (Shamim & Ahmad, 2007). Beine, Bismans, Docquier, and Laurent (2001) revealed in their findings that American households prefer to spend their money in shopping malls rather than on traditional leisure activities.

It is further observed in Table 9 that fifty 49.8% do not have access to insurance services. 47.6% are unable to access credit from banks, 44.4% are unable to access credit from family and friends, compared to 42.5% of the respondents who

do not have access to credit from the government. Additionally, in order to acquire financing, 47.6% do not have the required collateral assets. In contrast to the study's findings, Dercon, De Weerdt, Bold and Pankhurst (2006) found that families having access to formal financial services can enhance their capacity to accumulate assets, upgrade their income-generating activities, and improve their ability to manage risks. Wangwe and Lwakatare (2004) found that families' access to credit facilities, savings products, and insurance services prevents income volatility and sustains consumption levels during lean periods, which contradicts the findings of this study.

Table 10

Multiple correlation showing the association between personal monthly income and work-related activities, household expenditures and financial services

		Personal monthly income	Work-related activities	Household expendi-tures	Financial services
Personal monthly income	Pearson	1	0.519**	0.120**	0.387**
	Sig. (2-tailed)		0.000	0.002	0.000
	N	1100	1100	1100	1100
** Correlation is significant at the 0.01 level (2-tailed)					

Source: Field Survey (2022)

In elaborating on the current variables used to measure the economic levels of Ghana, a Pearson correlation was conducted to determine the association between personal monthly income and the variables used for measuring the economic levels of Ghana (work-related activities, household expenditures, and financial services). As shown in Table 10, there was a moderate and positive correlation between personal monthly income and work-related activities, which was statistically significant at $r = 0.519$, $n = 1100$, $p < 0.01$. Hudakova (2015) confirms that basic income has relations with individuals, markets, and the economy. She emphasized that basic income is important for reducing labour force participation and improving job performance because of its potential favourable influence on working conditions given vocational choices. However, a basic income program would not necessarily result in significant changes in human behaviour.

Also, in Table 10, the Pearson's correlation results showed a weak, positive, and significant association between personal monthly income and financial services: $r = 0.387$, $N = 1100$, $p < 0.01$. This is confirmed by Twumasi, Jiang, Ameyaw et al. (2020) and Koomson, Villano & Hadley (2020) that there is an improvement in household income when households access and optimally use financial services. For instance, these researchers identified that access to financial services and products (e.g., credit and savings) improves the revenue of rural farmers. Households' lack of technical know-how of financial management limits their income generation power through poor or incorrect investment and borrowing decisions (Atakora, 2016).

However, the Pearson correlation results between personal monthly income and household expenditures were found to have no association at $r = 0.120$, $N = 1100$, $p < 0.01$. Contrary to the study's findings, an increase in disposable income has a rising impact on household savings and consumption expenditures; that is, the demand for products and services among families increases (Twumasi, Jiang, Ding, Wang & Abgenyo, 2022).

Table 11

The current level of agricultural services in Ghana

Statements	**Strongly disagree**	**Neutral**	**Strongly agree**
	N (%)	N (%)	N (%)
Ownership of crop farm inputs	704 (64)	128 (11.6)	268 (24.4)
Ownership of animal farming inputs	692 (62.9)	92 (8.4)	316 (28.7)
Ownership of fish farming inputs	820 (74.5)	96 (8.7)	184 (16.7)
Processing of crop produce	576 (52.4)	116 (10.5)	408 (37.1)
Processing of animal produce	688 (62.5)	92 (8.4)	320 (29.1)
Processing of fish produce	632 (57.5)	100 (9.1)	368 (33.5)
Consumption of crop farming produce	284 (25.8)	140 (12.7)	676 (61.5)
Consumption of animal farming produce	296 (26.9)	108 (9.8)	696 (63.3)
Consumption of fish farming produce	368 (33.5)	132 (12)	600 (54.5)

Source: Field Survey (2022)

The current agricultural level of Ghana is assessed using variables such as ownership, processing, and consumption. Regarding ownership of agricultural inputs, Table 11 showed that 64.0% of the respondents do not own crop farming

inputs, 62.9% do not own animal farming inputs, and 74.4% do not own fish farming inputs. According to GSS (2019) estimates, 44.1% of Ghanaian household members own or operate crop, animal, or fish farms. Crop inputs account for 86%, livestock inputs account for 14%, and fish inputs account for less than 1% of total agricultural input expenditures (GH159,496.79 million).

For the processing of agricultural produce, the results in Table 11 revealed that the majority of the respondents do not process agricultural produce; specifically, unprocessed agricultural products were crop (52.4%), animal (62.5%), and fish (57.5%). Due to the shortfall in output, large quantities of meat have been imported to supplement local production, resulting in a 187.4% increase in meat imports (Nuvey, Kreppel, Nortey, Addo-Lartey, Sarfo, Fokou et al., 2020).

Moreover, 61.5% of the respondents said that crop farming produce is consumed, while 63.3% believed that animal farming produce is consumed, and 54.5% of them consume fish farming produce. Although the number of families engaged in livestock farming in Ghana has increased, the national demand for meat consumption exceeds the country's production of processed meat (Nuvey et al., 2020).

Table 12

Multiple correlation showing the relationship between Household Monthly Income and ownership, processing and consumption.

		Household monthly income	Ownership	Processing	Consumption
Household monthly income	Pearson	1	-.0086**	0.105**	0.216**
	Sig. (2-tailed)		0.004	0.000	0.000
	N	1100	1100	1100	1100
** Correlation is significant at the 0.01 level (2-tailed)					

Source: Field Survey (2022)

Table 12 shows a Pearson correlation between household monthly income and the variables used to measure the levels of agricultural services in Ghana (ownership, processing, and consumption). The findings revealed that a Pearson’s

correlation analysis indicated no association between household monthly income and ownership of agricultural inputs: $r = -0.086$, $N = 1100$, $p < 0.01$. This is supported by Twumasi et al. (2020) and Koomson et al. (2020), indicating that access to income sources (e.g., credit and savings) among rural households, primarily farmers, can increase farm revenue through enhanced farm productivity, improved purchase of farm inputs, and strengthened ability to adapt to climatic conditions and adopt new technologies to enhance production.

Similarly, the Pearson's correlation results in Table 12 showed no association between household monthly income and processing of agricultural products: $r = 0.105$, $N = 1100$, $p < 0.01$. In line with the association between household income and the processing of agricultural products, evidence from Leibtag and Kaufman (2003) supports that low-income households may opt for lower quality fruits and vegetables or more processed fruits and vegetables if they are less expensive. Disparities in spending between low-income and other households explain why there are differences in the consumption of processed products.

Additional findings in Table 12 showed a weak, positive, and statistically significant relationship between household monthly income and consumption of agricultural produce: $r = 0.216$, $N = 1100$, $p < 0.01$. To some extent, Van Den Berg (2001) suggested that income has a connection with agricultural consumption; non-farm income could be a viable option for ensuring income stability and maintaining minimal annual consumption for households. When non-farm activity becomes the primary source of interest for a farm household, the revenue generated by this activity does not impact agricultural productivity and consumption (Van Den Berg, 2001).

Table 13

The current level of non-farm enterprises in Ghana

Non-farm enterprises	Strongly disagree	Neutral	Strongly agree
	N (%)	N (%)	N (%)
Manufacturing enterprise	752 (68.4)	124 (11.3)	224 (20.4)
Service enterprise	608 (55.3)	156 (14.2)	336 (30.5)
Manufacturing enterprise	696 (63.3)	204 (18.5)	200 (18.2)
Service enterprise	608 (55.3)	272 (24.7)	220 (20.0)
Manufacturing enterprise	744 (67.6)	176 (16.0)	180 (16.4)
Service enterprise	608 (55.3)	164 (14.9)	328 (29.8)
Manufacturing enterprise	776 (70.5)	192 (17.5)	132 (12)
Service enterprise	712 (64.7)	228 (20.7)	160 (14.5)

Source: Field Survey (2022)

The assessment of non-farm enterprises in Ghana involved variables such as ownership, sources of capital, earnings/revenue, and expenditures in the manufacturing and service enterprises. The results in Table 13 showed that the majority of the respondents (i.e., 68.4%) do not own manufacturing enterprises, and 55.5% do not own service enterprises. It is further revealed that 63.3% of the respondents stated there are no available sources of capital for manufacturing enterprises, and 55.3% said there are no available sources of capital for service enterprises. However, based on the responses in Table 13, the percentage of respondents that do not spend on manufacturing enterprises and service enterprises were 70.1% and 64.7%, respectively. Explaining these findings, the GSS (2019) noted that only 6.6 million people are engaged in non-farm enterprises. The main reason is attributed to the sources of capital for non-farm enterprises, mainly comprising household savings (68.8%), followed by support from relatives or friends (17.0%), and proceeds from the family farm, constituting 4.2%. The remaining sources of capital combined account for 10% of non-farm enterprise start-up capital. As a result, the estimated total annual revenue for non-farm enterprises was GH¢3,630,800 (US $487,276.16), whereas the average annual expenditure of non-farm enterprises was GH¢3,714,500 (US $497,361.04) (GSS, 2019).

Table 14

Multiple correlation showing the relationship between household monthly income and ownership, sources of capital, earnings and expenditures

		HH monthly income	Owner-ship	Sources of capital	Earnings/ Revenue	Expendi-tures
HH monthly income	Pearson	1	.133**	.095**	.135**	.075*
	Sig. (2-tailed)		0.000	.002	.000	.013
	N	1100	1100	1100	1100	1100
**Correlation is significant at the 0.01 level (2-tailed) *Correlation is significant at the 0.05 level (2-tailed)						

Source: Field Survey (2022)

A Pearson correlation analysis in Table 14 identifies the relationships between household monthly income and ownership, sources of capital, earnings, and expenditures of non-farm enterprises in Ghana. As indicated in Table 14, the Pearson correlation analysis shows no association between household monthly income and ownership of non-farm enterprises: $r = 0.133$, $N = 1100$, $p < 0.01$. Similarly, there was no association between household monthly income and earnings/revenue accrued from non-farm enterprises: $r = 0.135$, $N = 1100$, $p < 0.01$. Additional results in Table 14 revealed that the Pearson correlation results between household monthly income and sources of capital for non-farm enterprise had no association: $r = 0.096$, $N = 1100$, $p < 0.01$. Likewise, there is no association between household monthly income and expenditures of non-farm enterprises: $r = 0.075$, $N = 1100$, $p < 0.05$. However, these findings contradict the findings of Lambon-Quayefio (2017) that non-farm enterprises have an association with income diversification and employment generation for households. Regarding the importance of non-enterprises on income diversification, there is an ongoing debate about households' incentives derived from these activities and the potential to provide employment opportunities to reduce labour surplus in the agricultural sector (Lambon-Quayefio, 2017).

Table 15

Governance, peace and security

Indicators	Strongly disagree	Neutral	Strongly agree
	N (%)	N (%)	N (%)
Protection against sexual offenses	112 (10.2)	396 (36)	592 (53.8)
Protection against violence and crime	128 (11.6)	268 (24.4)	704 (64)
Adequate public safety	92 (8.4)	176 (16)	832 (75.6)
Peace and social cohesion	180 (16.4)	260 (23.6)	660 (60)
Satisfied with the governance style	212 (19.3)	344 (31.3)	544 (49.5)

Source: Field Survey (2022)

In Table 15, sexual offenses, violence, crime, public safety, peace, social cohesion, and governance styles are key variable characteristics that describe the concept of governance, peace, and security in Ghana. 53.8% of the respondents are protected against sexual offenses, and 64% are protected against violence and crime. Additionally, 75.6% of the respondents have adequate public safety, while 60% enjoy peace and social cohesion. Unlike the other variables, less than half of the respondents (49.5%) are satisfied with the governance styles. In supporting these findings, the GSS reports from 2019 and 2014 indicated that less than three percent (2.3%) of Ghanaian households reported instances of sexual offenses, approximately 3% felt unsafe at home due to crime and violence, approximately 1%)felt very unsafe, and approximately six out of ten communities (61.2%) in Ghana indicated experiencing peace and cohesion. Dissatisfaction with governance styles among Ghanaian household members is evident as only a quarter (25.1%) feel their views are occasionally considered in laws, rules, and policies.

The purpose of Table 16 was to ascertain the relationships between the locations of the respondents and their level of satisfaction with the governance approach. The results revealed that half of the respondents (50%) in the Cape Coast Metropolis are satisfied with the governance approaches compared to 48.5% of the respondents from the Bolgatanga Municipal. Gumah and Aziabah (2020) explained that inefficient public service delivery has substantial negative impacts on the quality of citizens' lives, whereas efficient public service delivery enhances and improves the

quality of people's lives. They emphasized that assessing public views of public service delivery using a perception index can provide analytical leverage. The differences in views of efficiency and inefficiency between essential and auxiliary services reflect the spatial-economic characteristics of citizens.

Table 16

Crosstabulation showing the location and satisfaction with the governance

			Satisfaction with the governance		
			Strongly disagree	Neutral	**Strongly disagree**
Location	Cape Coast Metropolitan	Count	153	197	350
		%	21.9%	28.1%	50%
	Bolgatanga Municipal	Count	59	147	194
		%	14.8%	36.8%	48.5%
Total		Count	212	344	544
		%	19.3%	31.3%	49.5%

Source: Field Survey (2022)

CHAPTER 2

ALTERNATIVE APPROACHES TO THE SOCIAL WELL-BEING MEASUREMENT IN GHANA

2.1. Sociological analysis of the well-being changes in Ghana

Ghana, a middle-income country in sub-Saharan Africa, with a per capita income of US$ 2,223 in 2020 (according to the World Bank). Recent economic output of Ghana indicate that the economy grew by 4.7% year-on-year in the first quarter of 2024, representing the strongest growth since the fourth quarter of 2021, an increase from 3.8% in the previous quarter. The industrial sector experienced an annual rise of 6.8% during this period, marking the highest growth in nearly five years, following a 1.6% expansion in the last quarter of 2023. Conversely, growth in the agricultural sector slowed to 4.1%, down from 4.5% in the preceding quarter, largely due to adverse weather conditions, while the services sector also decelerated to 3.3% from 5.1%. Ghana has utilized a rigorous methodological approach, focusing on factual data and empirical evidence to gain a comprehensive understanding of the factors influencing socio-economic development in the country since 1992 (Aboagye-Attah, 2019). This information is vital for improving living standards by tackling inequality and poverty. Poverty is a critical indicator of living standards and overall well-being within a nation. Despite Ghana's efforts to maintain consistent economic growth and development, poverty continues to pose a significant challenge (Aboagye-Attah, 2019).

Historically, the Central Bureau of Statistics of Ghana conducted National Household Budget Surveys in 1962 and 1974 to evaluate poverty levels and living conditions among Ghanaians. These surveys included the National Household Budget Survey (1974/1975) and Agricultural Census (1970 and 1974). Recently, the Ghana Living Standards Survey has been the primary tool for analysing poverty and constructing poverty profiles in the country, following the procedures set forth by

the World Bank. This survey collects data on income and expenditures primarily at the household level to explore intrahousehold inequality (Boateng et al., 1990). To date, there have been seven rounds of the Ghana Living Standards Survey (GLSS): GLSS 1 (1987/1988), GLSS 2 (1988/1989), GLSS 3 (1991/1992), GLSS 4 (1998/1999), GLSS 5 (2005/2006), GLSS 6 (2012/2013), and GLSS 7 (2016/2017). In addition, Ghana has joined several African nations in employing an official Multidimensional Poverty Index (MPI) to assess and monitor multidimensional poverty. The Ghana MPI evaluates twelve indicators across three dimensions: Living Standards, Education, and Health. Households experiencing 33% deprivations are classified as living in multidimensional poverty. The leading contributors to multidimensional poverty in Ghana are deprivations in sanitation and health insurance coverage, whereas school attendance and nutrition rank the lowest (UNDP, 2020).

The findings reveal significant disparities, particularly between rural and urban populations, as well as geographical and age-related divides. Data from the ten regions of Ghana indicate that the Northern Region has the highest rate of multidimensional poverty, affecting 80% of its population, followed closely by the Upper East Region at nearly 70%. The Upper West, Volta, and Brong-Ahafo regions also exhibit high poverty levels, while Greater Accra and Ashanti regions report the lowest rates. Furthermore, rural areas experience more than double the rate of multidimensional poverty (64.6%) compared to urban areas (27.0%). All regions managed to decrease their poverty levels between 2011 and 2017; however, the absolute reduction in the number of poor individuals was greater in the least poor regions (Ashanti and Western) than in the most disadvantaged regions (Northern, Upper East, and Upper West).

While monetary poverty assessments based on consumption expenditure (household spending on goods and services) have been the traditional measure of poverty in Ghana, the MPI provides a comparative analysis of these two measures. The results indicate that approximately 6 million Ghanaians (19.3% of the population) are concurrently identified as poor by both measures. The analysis reveals that more than half of those classified as multidimensionally poor due to simultaneous

deprivations in education, health, and living standards were overlooked in the monetary poverty assessment. Thus, the MPI offers additional insights to ensure that no one is excluded from consideration. Nonetheless, both the monetary poverty and MPI assessments fall short of fully capturing the true well-being and living standards of Ghanaians. A critical gap in research is the lack of assessment of several essential components of well-being, such as relational and societal well-being.

Similar to other West African countries, social and economic issues are closely linked, as the economic situation and fiscal capacity affect the availability of resources for social investment (United Nations Economic Commission for Africa[33]). Health, education, labour, poverty, and gender are the chosen indicators used for measuring the Social Development Goals by 2030, which are at risk of not being met, as well as for leveraging the Demographic Dividend in the region (UN ECA). This is because eliminating extreme poverty in all its forms in West Africa by 2030, as outlined in SDG 1.1, remains a significant challenge. Estimates for 2023 indicate that only three countries; Côte d'Ivoire, Senegal, and Cabo Verde have less than 15% of their populations living on less than $2.15 a day. West African nations face substantial obstacles in achieving key SDG targets related to economic growth, poverty alleviation, health, and education (UN ECA, [21]). To combat extreme poverty effectively, countries should adopt targeted social protection mechanisms that align with SDGs 1 and 2, focusing on investments in health and education, job creation, training, and opportunities for youth to enhance human capital. This approach is essential not only for meeting SDGs 3 and 4, particularly as West Africa lags behind, but also for leveraging the demographic dividend (UN ECA). Given the current circumstances, it is evident that the socio-economic profile of West Africa in 2023 falls short in certain aspects of well-being, particularly in relation to relational and societal well-being indicators.

Furthermore, in Russia for instance, surveys assess various aspects such as material well-being, environmental conditions, social security, and levels of

[33] United Nations Economic Commission for Africa-UN ECA (2023). West Africa Socioeconomic Profile 2023. URL: https://www.uneca.org/eca-events/sites/default/files/resources/documents/sro-na/icsoe-na-wa-2023/socioeconomic-profile-2023-west-africa-english.pdf.

happiness (Narbut & Trotsuk, 2018). Major sociological centres, including the Russian Public Opinion Research Center (WCIOM), gather data on these topics and evaluate happiness indices, identifying key factors that contribute to happiness and unhappiness, like family and health. Trotsuk (2019) noted that such surveys are important since the current sociological landscape is influenced by advancements in empirical research techniques due to globalization and digitalization, alongside ongoing methodological debates about data collection and analysis while maintaining reliability, validity, objectivity, and representativeness.

In the 21st century, it is very essential to ensure sustaining development for every Ghanaian citizen. Sustaining Ghana's socio-economic development is a useful approach to solve some of the most pressing problems of the 21st century; multiple threats to the stability of the planetary social and ecological system. When development is sustained over time, every Ghanaian will have equal access to education, health, acquisition, creation and adaptation of information, knowledge, skills and values. To improve human well-being and social equity by the early 21st century, the process of globalization, along with social relations, must be encouraged together with the growing understanding of how scientific and technological progress changes our living conditions (Grinin & Korotayev, 2013).

Sustaining development requires inter-generational dimensions of economic, social and environmental elements. The links between social, economic and environmental processes are both important and complex, which can either support each other or imply difficult trade-offs between competing goals. Furthermore, the need to adopt more eclectic approaches in the formation of social interventions moves all interventions towards greater ex-ante integration of social goals into other areas of policy making. Approaches to the social aspects of sustainable development should not deter or interfere with either cultural diversity or the peculiarities of civilizational development. As advocated by the OECD (2015) to countries in particular, to eradicate extreme poverty and to shape globalization to the benefit of all, requires coherent policies in the fields of trade, investment, development cooperation and

technology transfers, and the leveraging of the initiatives of a wide range of actors (governments, firms, workers, voluntary groups, citizens and consumers).

In the contemporary society, there is a growing emphasis on social health and quality, which encompasses various aspects such as social cohesion, socio-economic security, social inclusion, and social participation. These elements are based on principles such as increased community engagement, trust, reduced risk, and less experience of discrimination (Koo et al., 2016). Nevertheless, achieving these standards of social health solely through economic indicators of well-being is not a viable approach, as evidenced by the situation in Ghana.

In the current context of Ghana, it is imperative to integrate economic well-being, life satisfaction, and societal well-being into the assessment of poverty and inequality at the national level. Nevertheless, government initiatives in Ghana, such as the Ghana Poverty Reduction Strategy and the Ghana Living Standards Survey, lack considerations for life satisfaction and societal well-being and do not effectively target those in poverty (Derry & Dorway, 2007). Therefore, social researchers posit that an effective way of measuring well-being must be defined to cover the dimensions of micro, meso and macro-levels of analysis, including personal, relational, and societal well-being (Koo et al., 2016), as presented in Figure 1. This multidimensional approach highlights the complex and interconnected nature of individual, interpersonal, and societal factors that contribute to overall human well-being.

The models in Figure 1 show that achieving social well-being is influenced by three components: personal, relational, and societal well-being. The nature of social well-being is a multidimensional approach, remarkable and reflecting the appropriate linkages among these three components (Koo et al., 2016; Dłużewska, 2019). There are intrinsic connections among the three components of social well-being, focusing on improving social well-being by either doing well (objective measures) and feeling good (subjective measures) (Trotsuk, 2019; White, 2006). To achieve these well-being outcomes requires a concerted working relationship among all components of social well-being (White, 2006).

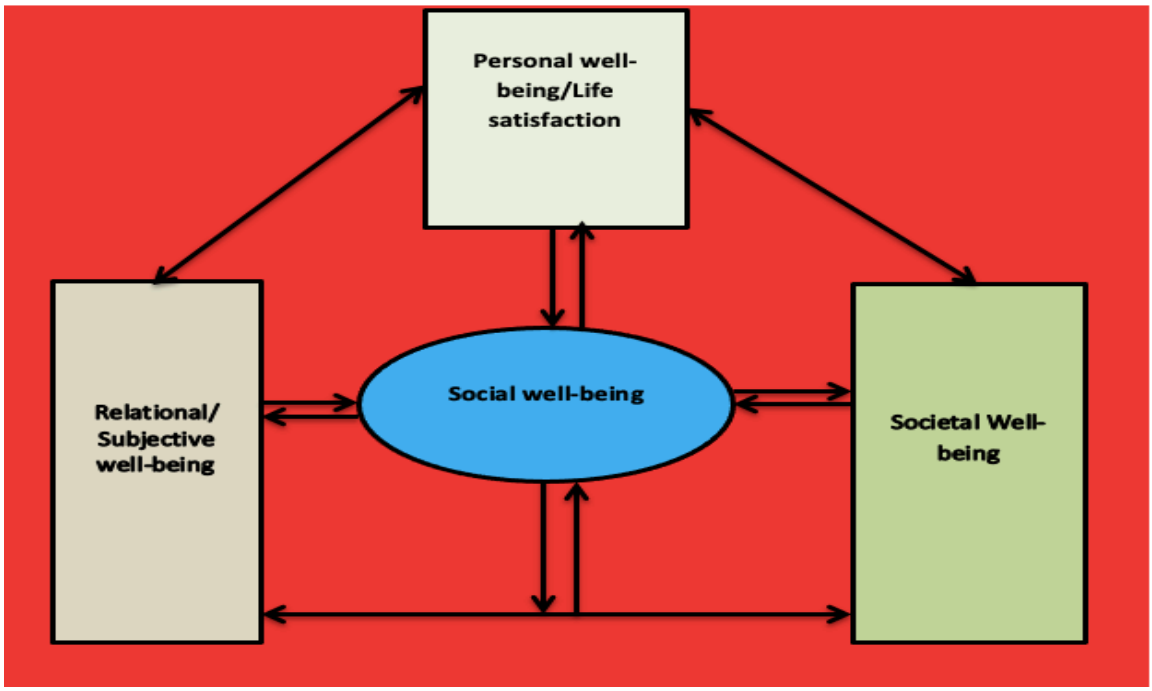

Fig. 1. Conceptual framework for the definition of social well-being
Source: modified from Koo et al. (2016)

For instance, accomplishing personal well-being or life satisfaction needs reinforcing roles from relational activities (with family members, neighbours, etc.) and the role of one's social environments (social institutions) as stated in Figure 1. Also, since the nature and characteristics of social well-being are broader, achieving an overall social well-being is inadequate without the supporting roles from the other three components of well-being. This will ensure that an increase in social well-being will reinforce an increase in all other components of well-being. To support this point, Chambers (1997) coined the term "the responsible well-being concept" to mean that achieving well-being is not an individualistic approach but rather deeply grounded in a particular social and cultural context, with the primary aim of ensuring sustainability and equity (Chambers, 2005).

Despite the extensive research on ensuring the integration of components of well-being, there is a relatively larger research gap on societal well-being as compared to economic and subjective well-being (Keyes, 1998). Societal indicators such as social contribution, social inclusion and integration, social actualization, social acceptance, social cohesion, and institutional trust must be considered important

indicators in the discourse of well-being (Koo et al., 2016; Keyes, 1998). There is a broad agreement that well-being measurement needs insight not solely from personal, economic, and relative subjective well-being but also the inclusion of societal factors (Cummins, Eckersley, Pallant, Van Vugt, & Misajon, 2003). The analysis of well-being should focus on indicators such as social actualization, social acceptance, social cohesion, and institutional trust in filling this research gap in the discourse of well-being.

Under this section, one of the main objectives is to explore sociological strategies aimed at reducing inequality and enhancing societal well-being in Ghana. Ghana has made significant progress in development and poverty reduction, but disparities remain, particularly between the southern and northern regions. In the north, many people live on less than $1 a day, underscoring the need for targeted interventions (Oduro et al., 2018). These inequalities affect not only economic conditions but also access to essential services like education and healthcare, which are vital for social well-being. This section aims to identify the social models and factors that affect the well-being of Ghanaians. The sociological analysis of well-being is measured by incorporating three components: personal, relational, and societal well-being. The personal well-being comprises health, education, and work-life activities. The relational well-being consists of communication with friends/relatives and body management/appearance. The societal well-being includes social contributions, social inclusion and integration, social actualization, social acceptance, social cohesion, and institutional trust. The descriptive findings involving the applications of Mean Deviation (MD) and Standard Deviation (SD) are employed to explain the sociological analysis of the well-being and satisfaction of Ghanaians in modern conditions. The interpretation of findings follows Oxford and Burry-Stock's (1995) scales of low for the range between 1.0 and 2.4, medium for the range between 2.5 and 3.4, and high for the range between 3.5 and 5.0. The results obtained for this task are presented in Tables 18, 19, and 20.

Table 17

Personal well-being of Ghanaians

	Mean	Std. deviation
Education		
Satisfied with the kinds of educational services	3.5636	1.14727
Educated in a conducive educational environment	3.68	1.07556
Afford the cost involved in being educated	3.3818	1.21697
No stigmatization when receiving education	3.7636	0.98327
There's utmost care, love, patients, and respect from educational professionals when I'm schooling	3.6764	1.03126
No long-distance travel to receive education	3.3927	1.20295
Health		
Satisfied with the kinds of healthcare services	3.7345	0.89813
Access medical care in a conducive environment	3.7455	0.87047
Afford the cost involved in seeking healthcare	3.4291	1.06455
No stigmatization when seeking healthcare	3.7782	0.82161
There's utmost care, love, patients, and respect from health professionals when I'm seeking healthcare	3.7455	0.92716
No long-distance travels when seeking healthcare	3.3673	1.19432
Work-life activities		
I'm capable of working in any sector of the economy	3.7745	1.06908
I'm satisfied with the supports I receive at my workplace	3.2945	1.26713
I'm satisfied with my job because my monthly pay corresponds to the amount of work I do	3.1527	1.30455
My monthly income is sufficient to meet the basic and sustenance demands of my family	2.9673	1.30332
My job schedules and activities provide me with sufficient time and resources to address the demands of my family	3.2582	1.16151
I consider my life to be highly important because I have a good career and a supportive family	3.5673	1.0716

Source: Field Survey, (2022).

Table 17 shows a separate mean score for the variables that measure personal well-being in Ghana. Concerning education, the results showed that the variable "no forms of stigmatisation when receiving education" had a slightly higher mean deviation score of 3.7636 and a lower standard deviation score of 0.98327 compared to the other variables that measured education. The mean score of 3.7636 indicates that "no forms of stigmatisation when receiving education" represents a higher

contributor in measuring education as an indicator of personal well-being than the other variables. Ghana's Ministry of Education[34] asserts that education delivery in Ghana is a right for all citizens of school age, irrespective of gender, ethnicity, or religious affiliations. Colleen (2013) further posits that education is a fundamental requisite for realizing one's full potential and making a significant contribution to the development of one's society. Consequently, inclusive education is regarded as a pivotal instrument for guaranteeing that all individuals have equal opportunity to develop their abilities and utilise the knowledge, they have acquired to enhance their well-being (Colleen, 2013).

Further results from Table 17 also showed that "no stigmatisation when seeking healthcare" recorded a slightly higher mean score of 3.7782 with a lower 0.82161 standard deviation as compared to the other variables that measured health as an indicator of personal well-being. The highest mean score of 3.7782 recorded for "no stigmatisation when seeking healthcare" promotes health as a strong indicator of personal well-being. In contrast to the findings of this study, Ross, Lypson and Kumagai (2012) asserted that disparities in healthcare exist in the United States that affect various racial and ethnic minorities, particularly African Americans. African Americans residing in rural areas are less likely to have access to and utilise health services, which results in a lack of aggressive cardiac treatments, inadequate pain management, limited cancer therapy, and less stringent diabetes control (Ross et al., 2012). Historically, societal systems (legalised segregation, discrimination, hectic lifestyle, poor education, inadequate housing, low-paying occupations and a lack of insurance coverage) have compelled African Americans to utilise inferior health services and facilities in comparison to other groups in the United States, which has had a detrimental impact on their well-being (Drayton-Brooks & White, 2004).

Additionally, the capability to "work in any sector of the economy" had a slightly higher mean score of 3.7745 with a corresponding lower standard deviation of 1.06908 as compared to the other variables that measured work-life activities as an indicator of personal well-being. This indicates that the mean score of 3.7745 for

[34] Ministry of Education (2013). Education Sector Performance Report, 2013.

having the capacity to work in any sector of the Ghanaian economy is a great contributor in measuring work-life activities as an indicator of personal well-being. The Labour Force Participation Rate (LFPR), or the ability to work in any sector of the economy, is one of the relevant indicators used to track progress toward national and international development goals such as the Sustainable Development Goals (SDGs). The labour force participation rate (LFPR) in Ghana is 70.9% (GSS, 2019). Conversely, the rate of employment has been relatively low due to a slower rate of development in the sectors of agriculture and manufacturing, which have a high labour absorption rate, compared to significant growth in the sectors of mining and oil extraction, which have a low employment-generating rate (Aryeetey & Baah-Boateng, 2016).

Table 18

Relational well-being of Ghanaians

	Mean	Std. deviation
Satisfying relations/Communication with families/friends		
I have frequent communication with family and friends	3.8436	0.96202
I have good interaction with family and friends	3.9345	0.89243
I am currently satisfied with relationships with family and friends	3.8836	0.92341
The information I share with family and friends is kept secured	3.5891	1.07341
I am engaged in social activities with my family and friends	3.8255	0.99062
Body management, appearance and acceptance		
I am comfortable in my body shape	4.1709	0.90069
I have a positive self-image	4.1491	0.94809
I often have negative feelings such as blue mood, despair, anxiety, depression	3.3418	1.27960
I am satisfied with the number of hours I sleep	3.4509	1.17308
I am able to overcome stress in life	3.7673	.98967
I find it easy to solve personal problems	3.6073	1.07513
To overcome challenges in life, it takes me longer period of time	3.1709	1.20805

Source: Field Survey (2022)

In Table 18, the results showed a separate mean score for the variables that measure relational well-being. Regarding relations with families and friends, the findings revealed that having good interaction with families and friends had a slightly higher mean score of 3.9345 with a lower standard deviation of.89243 as compared to other variables such as frequent communication (MD = 3.8436; SD = 0.96202), satisfied relations, securing shared information (MD = 3.5891; SD = 1.07341) and engagement in social activities with friends and family (MD = 3.8255; SD = 0.99062). This means that the highest mean score of 3.9345 for having good interaction with family and friends is the highest contributing factor to relational well-being. The literature that corroborates the findings of the study reveals that in the context of relational well-being, individuals rarely refer to themselves alone, but rather to individuals who are close to them (McGregor, 2018; Haidt, 2006; Christopher 1999). Wellbeing is understood in collective terms as a property that emerges through relationships with others (Christopher 1999). This is particularly evident when individuals tend to place greater emphasis on collective identities and relationships of (often unequal) reciprocity. According to Haidt (2006), happiness arises from within or is fostered by the establishment of positive relationships with one's work, with others, and with a higher power. Huovinen and Blackmore (2016) posit that relational well-being is classified as active, dynamic, and constituted through the interplay of personal, social, and environmental processes. This emphasises the importance of the health and quality of relationships, as well as the effort people invest in maintaining them, for their well-being. McGregor (2018) identifies that relationships represent a key focus of numerous types of association, through which (psychological and material) commodities are provided and needs are satisfied or denied.

Moreover, the findings in Table 18 showed that comfortability in body shape recorded a slightly higher mean score of 4.1709 and a lower standard deviation of 0.90069 as compared to the other variables that measured body measurement, appearance and acceptance. This suggests that being comfortable in one's own body plays a significant role in influencing body management, appearance, and

acceptance a significant indicator of relational well-being. These findings are supported by Polk's studies on body image and appearance, which describe the way people perceive themselves and how this can affect their well-being. Individuals develop a persona that enables them to present themselves in a particular manner, despite the fact that when in the company of others, they act and appear in a different way. Conversely, individuals frequently perceive a discrepancy between their self-image and the reality of their physical form and size. Thus, the greater the discrepancy between an individual's perception of their body image and their actual physical appearance, the more likely they are to experience negative body image or self-perception. Those with a negative body image tend to fixate on aspects of their physical appearance that they find displeasing. This obsession can give rise adverse outcomes, including the development of eating disorders, depression, and obsessive-compulsive disorders. These conditions have a detrimental impact on an individual's health and quality of life, as well as their capacity for social interaction.

Table 19

Societal well-being of Ghanaians

	Mean	Std. deviation
Social contribution		
Contributes to the levels of education in the community	3.1936	1.7333
Contributes to the culture and religious beliefs	3.3091	1.7294
Contributes to the health needs in community	3.1964	1.14372
Contributes to the environmental needs	3.2909	1.10377
Contributes to politics and governance	3.1273	1.22537
Contributes to daily production and consumption	3.6073	1.03722
Social inclusion and integration		
I feel belonging to the community	3.7855	0.94304
I am an important person in my community	3.7127	0.99188
I feel that people in my community value me as an important person	3.6709	1.96856
I feel that people in my community take me seriously and listen to me	3.5018	1.03926
I feel that people in my community are reliable, kind and honest to me	3.4982	1.04276
I see that people in my community as important	3.8436	0.89132

Social actualization		
My communities offer me freedom to take decision and do what an individual want to do in his/her community	3.8509	0.85081
I am content with my current social position	3.7455	2.02458
My community helps me to learn new things.	3.6655	0.99972
Social institutions (family, politics and law) make my life better	3.6727	0.95622
My community continually evolves to make me a better person in the future	3.68	0.99469
My community is a productive place for me to live in	3.6982	1.00218
Social acceptance		
People in my community are reliable when I need assistance	3.2073	1.00804
They are kind, selfless and considerate to provide other peoples need	3.3818	1.00754
They care about other people's problems	3.3091	1.01441
They have positive thoughts and manners about others	3.3818	1.00754
They have their neighbours social contacts	3.6582	0.93826
They have social interaction with other people	3.7964	0.92787
Social coherence		
My community works to reduce any forms of void, exclusion and marginalization	3.2691	1.05893
My community offers me great protection against risks	3.4655	0.95470
My community creates equal access to the environment	3.2873	0.94297
My community creates equal sense of belonging, inclusiveness and opportunity	3.3273	0.94728
My community offers an equal employment and rising income opportunities	3.0982	1.03505
They offer me understandable cultural transformation	3.2582	1.04611
Institutional trust		
I can trust the local government staff	3.2691	1.11909
I trust in easy access to public welfare organisations	3.2218	1.06473
I trust the services rendered by the mass media	3.1984	1.04051
I trust and feel secured on the streets and the surroundings	3.04	1.21645
I have trust in societal values and cultures	3.5491	1.02042
I have trust in governance, politics and civil organisations (including media)	3.1818	1.10736

Source: Field Survey (2022)

The findings in Table 19 reveal that the contribution to daily production and consumption of products recorded the highest mean score of 3.6073 with the lowest standard deviation of 1.03722 as compared to contributions to education (MD = 3.1936; SD = 1.73330), culture and religious beliefs, health needs (MD = 3.3091; SD = 1.72940), environmental needs (MD = 3.1964; SD = 1.14372), governance and politics (MD = 3.1273; SD = 1.22537) that were used to measure social contribution as an indicator of societal well-being. This implies that one's contribution to daily production and consumption of products is regarded as the most significant variable in social contribution. Teghe and Rendell (2005) expanded the concept of social contribution, suggesting that a desirable society is one in which its members feel a sense of belonging and engagement. This encompasses contributions to effective transportation and communication networks; employment opportunities; educational institutions; healthcare; and other essential services, including those provided by the public, private, community, and voluntary sectors. These services must be responsive to the needs of the population and accessible to all (Pepperdine, 2000).

In terms of social inclusion and integration, the results in Table 19 showed that the importance attached to the people in one's community had a higher mean deviation of 3.8436 and a lower standard deviation of.89132 as compared to the remaining variables that measured social inclusion and integration. This means that seeing people as important parts of society promotes higher social inclusion and integration as an indicator of societal well-being. In Stewart's (2003) studies, social inclusion is defined as "participation in the determination of both individual and group life chances," in addition to a fair share of resources. The measurement of social inclusion is closely related to the concept of socioeconomic equality, particularly in instances where impoverished individuals participate fully in social activities yet do not have an equal share of resources. Similarly, those who are wealthy may experience social isolation as a consequence of political persecution or discrimination based on factors such as age, gender, sexual orientation, or disability (Labonte, Hadi & Kauffmann, 2012; Warschauer, 2004).

More findings in Table 19 revealed that communities that offer individuals the freedom to take decisions and do activities recorded the highest mean score of 3.8509 and the lowest standard deviation of 0.85081 unlike the other variables that measured social actualization as an indicator of societal well-being. This implies that communities that offer individuals the freedom to take decisions and do activities are recognised as the most effective contributors to social actualization as an indicator of societal well-being. This is corroborated by Keyes (1998) that social actualization fosters more positive evaluations of one's life, particularly when society is perceived as a productive place to live. Similarly, social actualisation offers a range of social and cultural domains in which its members can fulfil some or all needs (White, 2010).

It is further presented in Table 19 that having social interaction with other people obtained a higher mean score of 3.7964 and a lower standard deviation of 0.92787 as compared to the other variables that measured social acceptance as an indicator of societal well-being. Social interaction with others is the greatest contributor to social acceptance as an indicator of societal well-being. In accordance with the findings of this study, Keyes (1998) posits that the social counterpart to self-acceptance is the favourable view of human nature, the expectation of kindness from others, and the consequent comfort with others. As Portes and Rumbaut (2006) posit, the success of social acceptance is contingent upon a multitude of receptive factors, including unemployment rates, poverty rates, and levels of discrimination.

Additional findings, as seen in Table 19, revealed that the society that offers great protection against hazards and risks had a higher mean of 3.4655 with a lower standard deviation of 0.95470, compared to the variables that measured social coherence as an indicator of societal well-being. This implies that a society that offers great protection against hazards and risks is a key contributor to social cohesion as an indicator of societal well-being. Other factors that corroborate the findings of this study indicate that a cohesive society has a shared vision and a sense of belonging for all members, which results in greater inclusivity, tolerance of diversity, multiculturalism, and transformation. Furthermore, greater civic participation is

appreciated, positively valued, and not marginalised. Additionally, a cohesive society provides life opportunities for social and economic needs such as better health, employment, and social support measures that reduce inequality and the consequences of economic shocks (Cuellar, 2012; Dhéret, 2015; Woolcock, 2011).

Also, the results in Table 19 showed that the trust for institutions, societal values and cultures had the highest mean score of 3.5491 with the lowest standard deviation of 1.02042 as compared to trust in local government staff (MD = 3.2691; SD = 1.11909), trust in easy access to public welfare organisations and the services they render (MD = 3.2218; SD = 1.06473), trust in services rendered by mass media organisations (MD = 3.0400; SD = 1.21645), trust in the security of one's surroundings (MD = 3.0400; SD = 1.21645), and trust for governance, politics, and civil organisations (MD = 3.1818; SD = 1.10736) that measured institutional trust as an indicator of societal well-being. This means that trust in societal values and culture is a major contributor to institutional trust as a measure of societal well-being. Institutional trust is regarded as a pivotal indicator of social well-being (Salehan, Kim & Koo, 2018). This concept represents an individual's relationship with and trust in their social environment. There are notable variations in trust in government officials (5.63), traditional and religious leaders (8.15), civic organisations (5.34), and political parties (4.83). The research indicates that citizens exhibit a higher degree of trust in so-called "culture" leaders (traditional and religious figures) than in so-called "structural" authorities (government officials). As observed by Salehan et al. (2018), the two institutions in question, namely civic organisations and political parties, which are expected to serve the needs of the public, are currently failing to fulfil their roles in promoting societal well-being.

2.2. The migration dimension of social well-being

The global landscape is currently experiencing an unprecedented period of human mobility and its associated consequences (Bouoiyour & Miftah, 2018). Migration can take place internally (Dugbazah, 2007), externally (Bump, 2006), or both internally and externally (Koser, 2003). The central question revolves around whether migration can have a significant impact on the human development of countries of origin. Migration plays a vital role in a nation's progress. Research has shown that migration can have both positive and negative effects on human well-being (Mora Rivera & Gonzalez, 2020; Yang, 2008; Hanson & Woodruff, 2003). On the positive side, remittances from migration are often used to support current household expenses (Mora Rivera & Gonzalez, 2020). Conversely, migration can disrupt family dynamics, roles, responsibilities, and child development (Hanson & Woodruff, 2003). Extensive studies have explored the socio-economic implications of migration from the perspectives of migrants, non-migrant households, and migrant households in both host and origin countries (McKenzie & Rapoport, 2011; Yang, 2008; Mansuri, 2006). However, the connections between migration and social well-being (personal, relational, and societal well-being) remain not fully elucidated. This study aims to investigate how migration (whether internal or external) influences social well-being as a means to address social challenges among the population of Ghana.

Migration and education are closely intertwined in various aspects. The acquisition of education plays a crucial role in shaping the outcomes of an individual's migration journey (Hanushek et al., 2011). Similarly, migration significantly impacts the investment in education and human capital (Mac, 2010). For example, migration affects educational achievements by altering the skill base, contributing to educational infrastructure, and incentivizing human capital investments, which lead to increased demand for child enrollment in schools and a reduction in child labour for families left behind in both destination and origin countries (Yang, 2008). Notwithstanding, the absence of a migrant family member can lead to a reorganization of household labour structures, increasing child responsibilities and disrupting the

time and resources allocated for educational activities (McKenzie & Rapoport, 2011). Another potential negative impact of migration is brain drain. Education is a key characteristic in the selection of highly skilled migrants (Chiquiar & Hanson, 2005; McKenzie & Rapoport, 2011). This self-selection process of educated migrants increases the likelihood of family members migrating in the future while reducing educational levels and the number of educated individuals in origin countries or societies (Chiquiar & Hanson, 2005).

Migration and health have become key priorities on the global public health agenda because their relationship affects well-being (International Organisation for Migration [IOM], 2019). While labour migration can bring substantial economic benefits for both origin and destination countries, true developmental gains are only realized through the implementation of safe, orderly, and humane migration practices (IOM, 2019). Migration is closely linked to health and well-being, showing improvements in health outcomes for children (Stillman, Gibson & McKenzie, 2012), and lower infant mortality rates among children in at least one household left behind (Hildebrandt & McKenzie, 2005; Zhang, 2018). Macours and Vakis (2010) provided evidence that maternal migration positively influences the early cognitive development of children through changes in income and maternal empowerment resulting from migration. However, research findings on the relationship between migration and health highlight negative consequences for families left behind (Song, Chen & Zhang, 2018; Dahal, 2016). Parental migration can lead to psychological and emotional distress, such as sadness, insomnia, obsessive thinking, loneliness, and crying among family members left behind (Adhikari, 2019; Dahal, 2016). For example, Jampaklay, Richter, Tangchonlatip, and Nanthamongkolchai (2018) reported that around 43% of children aged 12-17 experience psychological distress due to parental migration in Thailand. In China, left-behind children experience anxiety and poor living conditions compared to non-left-behind children (Song et al., 2018; Wang et al., 2017).

Studies on transnational migrants and work-life balance in destination countries have received considerable attention (Baldassar & Merla, 2014; Mazzucato &

Schans, 2011) compared to research on how out-migration affects the work-life balance of households left behind in the home countries. Many of these studies approach work-life balance through the lens of responsibilities, roles, and expectations within migrant households in destination areas (Ivana, 2020), while overlooking the specific challenges arising from out-migration on work-life balance and the well-being of families left behind in the home countries. This study aims to address this gap by focusing on the migration effects on work-life balance of left-behind households in the home countries. The concepts of "breadwinning" (working outside the home) and "homemaking" (fulfilling family obligations) are significant influencers of work-life balance and are closely tied to gender roles (Knodel & Chayovan, 2012). Gender roles are shaped by socio-cultural contexts and play a crucial role in understanding work-life balance issues such as the division of domestic labour (Kurowska, 2018). Research suggests that women's careers are disproportionately impacted by challenges related to work-life balance. For example, male outmigration can disrupt household income sources, leading women to respond by balancing paid employment with family responsibilities at home (Cook & Dong, 2011). As a result, women often bear the burden of anxieties, social isolation, duties, and sacrifices necessary to fulfil family obligations. Additionally, cultural norms and beliefs influence women's work choices and position them as family managers within households with migration experiences (Milewski, 2010; Krapf & Wolf, 2016). In striving to uphold family values, women may become dual breadwinners by juggling home duties with paid work (Haas, Mittnik & Paolella, 2004). This underscores the interconnected nature of various aspects of life, including work and family dynamics (“working motherhood”), as well as support for mothers from extended family networks.

Studies conducted worldwide have highlighted the patterns of out-migration and the significant impacts it has on the subjective well-being of families left behind (UNDP, 2009; Wu, Lu & Kang, 2015). Research focusing on the hedonic (affective) and cognitive (evaluative) dimensions of subjective well-being is crucial for understanding both material and non-material aspects of life, providing valuable insights

into the consequences of emigration on left-behind families in terms of consumption, income, and labour market responses (Dreby, 2015; Wu et al., 2015; Ivlevs, Nikolova & Graham, 2018). Despite the policy relevance of subjective well-being and migration, there are research gaps regarding the effects of emigration on the various dimensions of subjective well-being among families left behind (Ivlevs et al., 2018).

Ivlevs et al. (2018) revealed that families left behind tend to experience positive evaluative well-being when migration leads to remittance receipts. Additionally, it has been observed that families in less developed countries experience greater levels of positive hedonic well-being, such as joy and happiness, compared to those in wealthier nations (Ivlevs et al., 2018). However, parental migration can have negative effects on the hedonic well-being of left-behind families, particularly children, leading to feelings of abandonment, disruptions in family functioning, and emotional detachment (Jia & Tian, 2010). The absence of parents due to migration can hinder communication between parents and children as well as with friends, resulting in nutritional and educational challenges for children (Nguyen, 2015). These difficulties can give rise to negative emotions like loneliness, stress, sadness, worry, insecurity, fear, and may ultimately lead to psychological issues such as maladaptive behaviours and depression (Jia & Tian, 2010; Jingzhong & Lu, 2011; Piper, 2015; Fan, Su, Gill, & Birmaher, 2010).

Furthermore, out-migration poses challenges for self-assessment among left-behind families. Children in these situations may exhibit low self-confidence, social withdrawal, and isolation (Jingzhong & Lu, 2011), with boys often displaying more negative behaviours compared to girls (Fan et al., 2010). Studies indicate lower levels of subjective well-being among families and children left behind in rural areas. Graham and Jordan (2011) found that out-migration reduces happiness levels in migrant families in the home countries, especially for children with migrant fathers in countries like Indonesia and Thailand. Similarly, research suggests that children without parents present tend to be less happy and exhibit higher levels of depression leading to a diminished quality of life and uncertain access to healthcare for these children (Zhao, Yu, Wang & Glauben, 2014).

A systematic review examining the well-being impacts of out-migration on families has identified several gaps in existing research on migration and societal well-being among left-behind households. Firstly, current discussions primarily focus on objective and subjective well-being dimensions rather than analyzing societal well-being (Amit & Riss, 2014; Knipe, Lambert, Pearson et al., 2019; Tong, Yan, Kawachi, 2019). Secondly, limited studies investigate how migration influences various aspects of societal well-being for migrants in destination areas (Castles, 2011; Cortes, 2008; Earl, 2019; Tong et al., 2019). Thirdly, previous research often neglects to assess the impact of out-migration on social contribution, social actualization, social acceptance, social coherence, social inclusion and integration, and institutional trust factors among families left behind at migration origins (Amit & Riss, 2014; Cortes, 2008; Earl, 2019). Migration plays a pivotal role in Ghana's socioeconomic development by promoting pro-poor growth strategies that can positively influence migration and the well-being of families left behind. To address these gaps, there is a need for more comprehensive studies focusing on exploring the dimensions of societal well-being and the effects of out-migration on families left behind in origin areas. Migration has significantly impacted global society by fostering positive development outcomes through migrants' efforts in building homes, establishing enterprises, and contributing to economic growth. Remittances from migrants play a vital role in enhancing the education and health of left-behind families (Mansuri, 2006; Acosta, 2006; Yang, 2008). Families receiving remittances often experience positive hedonic well-being, including feelings of joy and happiness (Ivlevs et al., 2018).

Social integration is a dynamic concept in migration literature that involves mutual processes between migrants and their new communities. It provides stability for migrant groups through participation in organizations, division of labour, and public solidarity (OECD, 2018), fostering a sense of belonging and perceived safety for immigrants at their destination. Gender roles such as being a wife or mother can influence female immigrants' sense of belonging (Earl, 2019). Economic integration focuses on occupational and wage issues for immigrants in the new community

(Lester & Nguyen, 2016; De Paola & Brunello, 2016), while social integration encompasses residential patterns, marriage dynamics, and participation in political and social groups (Sobolewska, Galandini & Lessard-Phillips, 2017).

Migration plays a vital role in the journey towards self-actualization, representing a transformative process (Buergelt, Morgan, Julian & Bedford, 2018) that brings about global changes and fundamental outcomes for fulfilling societal and individual needs (Dovidio & Esses, 2001). When considering social actualization in the context of migration, it reshapes societies and politics by altering demographic, economic, and social structures, fostering increased ethnic and cultural diversity (Castles & Miller, 2009; Omelaniuk, 2005).

At the individual migrant level, migration represents a significant life transition. Extensive literature supports the idea that this transition is not merely a temporal, spatial, or cultural event but a logical step in a long and intricate developmental process that begins in childhood and continues to shape the lives of migrants beyond their migration experience (Omelaniuk, 2005). The transformative process of migration aids individuals in realizing their true selves (Maslow, 1954) and living authentically (Maslow, 1970), morally (Kohlberg, 1984), and cosmopolitan (Beck, 2002; Turner, 2002). Through the migration-transformation process, migrants become more self-aware, detach from cultural roots, gain confidence and capabilities, transcend boundaries, and accumulate experiences to create a better life for themselves and their families (Buergelt et al., 2018).

In a broader sense, social acceptance, integration, and inclusion are interconnected. The social acceptance of migrants in destination areas relies on positive social interactions. Social acceptance helps immigrant youth navigate acculturation challenges and enhance their psychological well-being (Kuperminc, Wilkins, Roche & Alvarez-Jimenez, 2009). It promotes equal status, dispels negative stereotypes, and renews migrants' connections to their ethnic identities (Kuperminc et al., 2009). Moreover, socially accepted migrants benefit from socio-economic, civic, and political inclusion due to proactive migration policies in destination areas. However, during periods of social unacceptance, many migrants face economic and social

disadvantages, exclusion from civic and political participation, discrimination, racism, and xenophobia. This marginalization and exploitation of fears can make migrants easy targets for scapegoating (Kuperminc et al., 2009).

Regarding migration and social coherence, well-integrated migrants in new societies enjoy the benefits of equality and diversity (IOM, 2000). Constructive social integration based on respect for differences between migrants and institutions promotes integration and contributes to a cohesive society. This emphasis on unity and stability among migrants fosters a normative vision of social cohesion. Social inclusion fosters social cohesion by addressing the exclusion of all disadvantaged groups to ensure everyone has access, participation, benefits from, and feels a sense of belonging within society (Castles, 2010). Social cohesion does not imply assimilation into a single unit of individuals governed by hegemonic rules. In a pluralist society, cohesion can be achieved through interactions among various groups that form relationships based on an awareness of differences and interdependence (Rudiger & Spencer, 2003).

While social cohesion thrives on interaction and principles of equality, migrants and ethnic minorities often encounter challenges stemming from unequal treatment (Rudiger & Spencer, 2003). Trust in public institutions may be called into question when there is selective participation in fostering a cohesive society. In certain scenarios, public sentiment can turn against migrants, especially when social welfare benefits are reduced, and exclusion poses a genuine threat to many. This polarization of demographic groups signifies a process of social fragmentation. Embracing diversity and managing differences becomes more challenging in the face of economic, social, and even physical insecurity (Rudiger & Spencer, 2003).

The aforementioned section highlights a gap in the literature review concerning out-migration and societal well-being among families left behind, as most existing studies (Castles, 2010; Cortes, 2008; Earl, 2019; Rudiger & Spencer, 2003) predominantly focus on out-migration and its impacts on immigrants at destination locations. This study aimed to explore the reverse perspective: how out-migration influences the processes of social integration, inclusion, cohesion, acceptance,

contribution, actualization, and institutional trust among families left behind in their places of origin. This investigation is crucial because the effects of migration on families left behind are heavily influenced by the circumstances of migrants at their destination. For example, the integration process of migrants at the destination directly impacts the consequences of migration on families left behind at the origin.

The purpose of this section is to evaluate the role of migration as a tool for addressing social issues and improving social well-being. Over the past two decades, Ghana has made significant advancements in development and poverty alleviation yet, there remain critical research gaps concerning equitable access to resources and opportunities for all Ghanaians (Oduro et al., 2018). These situations have triggered social mobility among the active youth within and outside the country with the sole aim of enhancing the well-being of their households.

The analysis in this section is presented in three main ways: first, it examines the types of migration undertaken by household members, including internal, external, and both internal and external migrations; second, it looks at the impact of migration on personal, relational, and social well-being factors; and third, it explores the effects of different types of migration on personal, relational, and social well-being. The first part analyses the types of migration using descriptive statistics with frequencies and percentages, as shown in Table 20. The second part provides a descriptive analysis of the effects of migration on personal, relational, and societal well-being factors, as depicted in Table 21. The final part involves examining the role of migration in addressing social issues using inferential statistics, such as the ordinal logistic regression technique, where the independent variables (internal, external, or internal and external migrations) predict the ordinal dependent variables (personal, relational, and social well-being), as presented in Table 22. The predictor variables were assessed a priori to ensure that the assumption of no multicollinearity (Tolerance or Variance Inflation Factor [VIF]) was not violated among all predictor variables.

Table 20

Types of migration

Forms of migration	Yes	No
Internal	78.2%	21.8%
External	62.5%	37.5%
Both	66.9%	33.1%

Source: Field Survey, (2022).

Table 20 shows that 78.2% of household members migrated within Ghana, 62.5% of household members migrated outside Ghana, and 66.9% of household members migrated both internally and externally. As shown in Table 20, the majority of Ghanaians (78.2%) engaged in more internal migration than external migrations. This is supported by Dugbazah (2007), who asserts that migration is particularly significant in Ghana due to the country's long history of population movement and high rates of rural-urban migration. However, Micah (2006) explained that Ghanaians have a larger diaspora population compared to their African counterparts in Western countries such as the United Kingdom, the United States, Canada, Germany, Italy, and the Netherlands. Precisely, Quartey (2009) revealed that the number of Ghanaians living abroad, excluding those without legal status, ranges between 1.5 and 3 million, corresponding to 7%–13% of Ghana's population.

The analysis of personal well-being in Table 21 revealed that migration has a positive impact on education (59.3%), health (50.9%), and work-life activities (54.2%). Therefore, the primary impact of migration on personal well-being is education (59.3%). Migration and education are closely intertwined decisions at various stages of an individual's migration journey, with educational attainment playing a crucial role (Hanushek et al., 2011). Migration also affects educational consumption as a human capital investment (Mac, 2010), leading to a mixed impact on natives' educational performance in a given community (Betts & Fairlie, 2003; Gould, Lavy, & Paserman, 2004). Migration alters educational attainment, changes the skill base, and generates educational externalities and remittances that support educational

infrastructure and encourage human capital investments for families left behind in both destination and origin countries.

Table 21

The impact of migration on personal, relational and societal well-being

Variables	Strongly disagree	Neutral	Strongly agree
Migration improves personal well-being			
Education	320 (29.1)	128 (11.6)	652 (59.3)
Health	340 (30.9)	200 (18.2)	560 (50.9)
Work-life activities	348 (31.6)	156 (14.2)	596 (54.2)
Migration improves relational well-being			
Frequent/good communication	296 (26.9)	192 (17.5)	612 (55.6)
Satisfying relations with family and friends	256 (23.3)	164 (14.9)	680 (61.8)
Body appearance and acceptance by family and friends	400 (36.4)	200 (18.2)	500 (45.5)
Migration improves societal well-being			
Social contribution	295 (26.8)	195 (17.7)	610 (55.5)
Social integration/inclusion	324 (29.5)	208 (18.9)	568 (51.6)
Social actualization	280 (25.5)	184 (16.7)	636 (57.8)
Social acceptance	275 (25)	200 (18.2)	625 (56.8)
Social coherence	308 (28)	228 (20.7)	564 (51.3)
Institutional trust	316 (28.7)	232 (21.1)	552 (50.2)

Source: Field Survey (2022)

In terms of relational well-being, migration improves respondents' communication levels (55.6%), fosters satisfying relationships with family and friends (61.8%), and enhances body appearance and acceptance by family and friends (45.5%). Therefore, results in Table 21 indicated that the primary impact of migration on relational well-being is satisfying relationships with family and friends (61.8%). This finding aligns with literature suggesting that migrants and left-behind families in less developed nations are more likely to experience positive hedonic well-being, such as joy, contentment, and fulfilling relationships, compared to those in more developed countries (Ivlevs et al., 2018). However, it has been noted that parental migration can lead to negative hedonic well-being in left-behind households, particularly among children, due to the effects of out-migration on positive

hedonic well-being (Zhao et al., 2014). Out-migration and parental absence can result in feelings of abandonment among children, as well as a decline in family functioning and inadequate social-emotional connections (Jia, Shi & Yang, 2010).

Furthermore, the effects of migration on societal well-being are reflected in social contribution (55.5%), social integration/inclusion (51.6%), social actualization (57.8%), social acceptance (56.8%), social coherence (51.3%), and institutional trust (50.2%). Moreover, Table 21 indicated that the primary impact of migration on societal well-being is social actualization (57.8%). Supporting this finding, Buergelt et al., Morgan (2018) identified migration as a crucial component of the transformational process leading to self-actualization. Migration brings about global change and has profound implications for meeting social and individual needs (Dovidio & Esses, 2001). It reshapes society and politics by altering demographic, economic, and social structures, resulting in increased ethnic and cultural diversity (Castles & Miller, 2009; Omelaniuk, 2005).

In Table 22, an ordinal logistic analysis was conducted to investigate the forms of migration (internal, external, and internal-external) and social well-being (personal, relational, and societal). The model fitting information for personal well-being [χ^2 (3) = 270.330, p < 0.000 < 0.005], relational well-being [χ^2 (3) = 116.509, p < 0.000 < 0.005], and societal well-being [χ^2 (3) = 225.079, p < 0.000 < 0.005] showed a significant improvement of fit with the model; forms of migration. Additionally, the Pearson chi-square test for personal well-being [χ^2 (11) = 129.330, p = 0.146], relational well-being [χ^2 (11) = 41.848, p = 0.096], and social well-being [χ^2 (11) = 22.601, p = 0.109] were all non-significant, suggesting a good model fit. Moreover, the Pseudo R squared indicated that forms of migration (internal, external, and internal-external migrations) explained 28% of the variance in personal well-being, 15.3% of the variance in relational well-being, and 24.6% of the variance in societal well-being.

Table 22

Ordinal Logistics Regression showing the types of migrations and personal, relational and societal well-being

Variables		Personal			Relational			Societal		
		Estimate (St. error) Sig.	Wald χ^2	95% CI	Estimate (Std. error) Sig.	Wald χ^2	95% CI	Estimate (Std. error) Sig.	Wald χ^2	95% CI
Threshold	Well-being = 1	0.266 (0.167) 0.112	2.519	-0.062_ 0.593	0-.823 (0.193) 0	18.21	-1.201_ -0.445	-0.192 (0.176) 0.274	1.199	-0.536_0.152
	Well-being = 2	0.778 (0.169) 0	21.25	0.447_1.108	0-.32 (0.188) 0.09	2.881	-0.689_0.049	0.26 (0.175) 0.137	2.208	-0.083_0.603
Location	Internal	0.335 (0.168) 0.046**	3.979	0.006_.0664	0.413 (0.195) 0.034**	4.474	0.03_0.795	0.105 (0.177) 0.552	0.354	-0.241_0.452
	External	1.226 (0.181) 0***	45.83	0.871_1.580	0.569 (0.223) 0.011**	6.538	.133_ 1.005	1.61 (0.193) 0***	69.28	1.231_1.989
	Both	1.399 (0.179) 0***	60.97	1.048_1.750	1.418 (0.222) 0***	40.82	0.983_ 1.853	0.819 (0.188) 0***	19.06	0.451_1.187
Model Fitting Information Goodness-of-Fit (Pearson) Pseudo R-Square (Nagelkerke) Test of Parallel Lines[a] Standard errors in parentheses		[χ^2 (3) = 270.3300, p<0.005] [χ^2 (11) = 129.33, p=0.146] 0.280 0.246 *** p<0.01, ** p<0.05, * p<0.1			[χ^2 (3) = 116.509, p005] [χ^2 (11) = 41.848, p=0.096] 0.153 0.408 *** p<0.01, ** p<0.05, * p<0.1			[χ^2 (3) = 225.079, p<0.005]0. [χ^2 (11) = 22.601, p=.0109] 0.246 0.316 *** p<0.01, ** p<0.05, * p<0.1		

Source: Field Survey (2022)

The first hypothesis for internal migration and personal, relational, and societal well-being was as follows:

1. **H_0: There is no significant relationship between internal migration and personal well-being.**
2. **H_0: There is no significant relationship between internal migration and relational well-being.**
3. **H_0: There is no significant relationship between internal migration and societal well-being.**

It can be seen in Table 22 that internal migration in the ordinal logistic regression analysis was a significant predictor of personal and relational well-being. The ordered log-odd estimate of personal well-being= [0.335], SE= (0.168), Wald χ^2 = [3.979], 95% CI= [0.006, 0.644], $p < 0.005$ showed a positive relationship, indicating that for every one unit increase in internal migration, there is a predicted increase of .335 in the log odds of being in a higher level of personal well-being (compared to those who do not migrate internally). In line with this finding, UNDP noted that (2009), internal migration contributes more to personal well-being for individuals left behind, including socioeconomic, behavioural, and health consequences, as well as the increasing relevance of remittances as social development tools for origin nations. This includes improvements in objective well-being (economic situation, access to food and water, child education).

Similarly, the odd-log estimates of relational well-being influenced by internal migration [0.413], SE= (0.195), 95% CI= [0.03, 0.795], were statistically significant effects at Wald χ^2 = [4.474], $p < 0.005$. For every unit increase in internal migration, there is a predicted increase of .413 in the log odds of being in a higher level of relational well-being (compared to those who do not migrate internally). Ivlevs et al (2018) confirms this finding that families left behind tend to experience positive evaluative well-being from remittance receipts due to migration, and interestingly, those in less developed countries report higher levels of positive hedonic well-being, such as joy and happiness, compared to families in wealthier nations.

However, internal migration was not a significant predictor of societal well-being. The regression coefficient indicates that for every one unit increase in internal migration, there is a predicted increase of .105 in the log odds of being in a higher level of societal well-being. As Nguyen, Yeoh & Toyota (2006) indicated, individuals left behind often have limited understanding and connections to migration in relation to their roles, experiences, and well-being.

The second hypothesis for external migration and personal, relational and societal well-being was as follows:

1. **H_0: There's no significant relationship between external migration and personal well-being**
2. **H_0: There's no significant relationship between external migration and relational well-being**
3. **H_0: There's no significant relationship between external migration and societal well-being.**

Furthermore, in Table 22, the external migration in the ordinal logistic regression analysis was a significant predictor of personal, relational, and societal well-being. The ordered log-odd estimate of personal well-being = [1.226], SE = (0.181), Wald χ^2 = [45.827], 95% CI = [0.871, 1.58], $p < 0.005$ showed a positive relationship, indicating that for every one unit increase in external migration, there is a predicted increase of 1.226 in the log odds of being at a higher level of personal well-being (compared to those who do not migrate externally). Literature corroborates this finding that emigration migration affects personal well-being in areas such as poverty and income (Adams, 2011), education (Antman, 2012; Cortes, 2021; Kroeger & Anderson, 2014), and health (Antman, 2012).

Similarly, the odd-log estimates of relational well-being influenced by external migration [0.569], SE = (0.223), 95% CI = [0.133, 1.005] were statistically significant effects at Wald χ^2 = [6.538], $p < 0.005$. For every unit increase in external migration, there is a predicted increase of 0.569 in the log odds of being at a higher level of relational well-being (compared to those who do not migrate externally). This is consistent with studies on subjective well-being that migrant and non-

migrant households exhibit similar levels of happiness, suggesting that remittances compensate migrant households for the pain of separation and disruption of family life (Borraz, Pozo, & Rossi, 2010).

Furthermore, external migration was a significant positive predictor of societal well-being with an odd estimate = [1.61], SE = (.193), Wald χ^2 = [69.283], 95% CI = [1.231, 1.989], $p < 0.005$. This indicates that for every unit increase in external migration, there is a predicted increase of 1.61 in the log odds of being at a higher level of societal well-being (compared to those who do not migrate externally). Regarding this finding on societal well-being, studies confirm that non-monetary or social remittance outcomes from migration include the effects of emigration on social contributions such as political participation (Chauvet & Mercier, 2014), behaviour regarding corruption (Ivlevs & King, 2017), and other non-monetary or social remittance outcomes from migration.

The third hypotheses for internal-external migrations and personal, relational, and societal well-being was as follows:

1. **H_0: There is no significant relationship between internal-external migration and personal well-being.**
2. **H_0: There is no significant relationship between internal-external migration and relational well-being.**
3. **H_0: There is no significant relationship between internal-external migration and societal well-being.**

Additionally, the findings in Table 22 revealed that internal-external migration in the ordinal logistic regression analysis was a significant predictor of personal, relational, and societal well-being. The ordered log-odd estimate = [1.399], SE = (0.179), Wald χ^2 = [60.971], 95% CI = [1.048, 1.75], $p < 0.005$ for personal well-being showed a positive relationship, indicating that for every one unit increase in internal-external migration, there is a predicted increase of 1.399 in the log odds of being at a higher level of personal well-being (compared to those who do not migrate both internally and externally). Similarly, the odd-log estimates of relational well-being influenced by internal-external migration [1.418], SE = (0.222), 95% CI =

[0.983, 1.853] had statistically significant effects at Wald χ^2 = [40.818], $p < 0.005$. For every unit increase in internal-external migration, there is a predicted increase of 1.418 in the log odds of being at a higher level of relational well-being (compared to those who do not migrate both internally and externally). Furthermore, internal-external migration was a significant positive predictor of societal well-being with an odd estimate = [0.819], SE = (0.188), Wald χ^2 = [19.055], 95% CI = [0.451, 1.187], $p < 0.005$, indicating that for every unit increase in internal-external migration, there is a predicted increase of 0.819 in the log odds of being at a higher level of societal well-being (compared to those who do not migrate both internally and externally). These findings confirm Rapoport and Docquier's (2006) study that both internal and external migrations have significant development and poverty implications for individuals and households, as well as for national economies, covering aspects of personal, relational, and societal well-being. Migration contributes to socio-economic development and welfare, diversifies livelihoods, and provides household insurance against future risks. Ratha (2007) asserted that migration has both direct and indirect effects on the welfare of the population in migrant-sending countries.

2.3. Technological dimension of social well-being in Ghana

The recent global environment is significantly shaped by technological advancements, particularly through social technology, which utilizes human, intellectual, and digital resources to influence social processes (Ilynykh et al., 2018; Skaržauskienė, 2015). Personal digital devices, such as computers and mobile phones, facilitate social interactions and activities across various sectors (OECD, 2017). These social technology tools are essential in the Sociology of Management, with historical ties to the evolution of these technologies (Ilynykh et al., 2018; Shcherbina, 2014). The concept of "social technology" is historically linked to social engineering (Veblen, 1891) and was associated with Soviet socio-economic policies (Preobrazhensky & Filtzer, 2017). Furthermore, Popper (1945) discussed how social

technology addresses poverty through two forms of social engineering: utopian and piecemeal engineering, each with distinct approaches to societal improvement.

Both international scholars like B. Brown, Jürgen Habermas, K. Popper, N. Stefanov, and P. Kotler, and domestic scholars such as V. Afanasyev, N. Danakin, L. Dyadchenko, V. Scherbin, J. Toschenko, B. Yudin, and O.A. Urzha have also made significant contributions in this field (Ilynykh et al., 2018). Perspectives on social technologies vary; they are seen as standardized methods for enhancing management activities (Shcherbina, 2014) and as systems addressing management challenges (Markov, 1982). While Toshchenko (2020) described social technologies as procedural tools for influencing social entities, Ilynykh et al. (2018) emphasized that social technology aims to develop social management entities for optimal functionality.

Technology and social needs are continually evolving (OECD, 2017). Since the internet's emergence in the early 1990s, various technologies have driven digital transformation to meet contemporary societal needs. Key technologies include the Internet, mobile devices, the Internet of Things (IoT), big data analysis, artificial intelligence (AI), and blockchain (OECD, 2017). The Internet is a pivotal technology of the information age, facilitating immediate global connections that enhance social transformations (Castells, 2014). In 2017, 3.5 billion people accessed the Internet, including 70% of the global youth population (ITU[35]). It fosters social networking, with platforms like Facebook capturing 54% of users' online time. Mobile devices revolutionize communication and social participation, with smartphones offering functionalities similar to computers (Kim, Lee, Lee, Nam & Chung, 2014). Many users express an inability to live without their smartphones (Smith, 2015). Computers process, store, and output data, becoming integral to daily routines across various fields (Grudin, 2007; Foster, 2002). The IoT consists of interconnected devices that optimize usage through data exchange, addressing challenges in sectors like healthcare and transportation. The number of connected devices in OECD

[35] International Telecommunication Union-ITU (2017). Facts, ICT Figures 2017. URL: https://www.itu.int/en/mediacentre/Pages/2017-PR37.aspx.

households is projected to rise from 1 billion in 2016 to 14 billion by 2022 (OECD, 2015). Big data analysis uses advanced technology to analyze large volumes of data, enhancing processes in science, medicine, government, education, and business (OECD, 2017). AI enables machines to perform human-like cognitive functions, leveraging big data and machine learning for autonomous operation, with its full potential yet to be realized (OECD, 2017). Blockchain technology provides a secure digital ledger for decentralized transactions, utilizing cryptographic algorithms to maintain tamper-proof records. It is applicable in various democratic processes, including secure value storage and voting systems (OECD, 2017).

These digital technologies have played a crucial role in driving social transformations (OECD, 2019). However, Kranzberg's first law of technology states that technology is neither inherently good nor bad; numerous studies have documented the contributions of social engineering to societal advancement (OECD, 2012 & 2019; Urzha, 2017; Turban, Strauss & Lai, 2016; Harlow & Guo, 2014). The OECD (2019) links social technologies to understanding the impact of digital transformation on well-being. Urzha (2017) emphasizes that social engineering evaluates and provides strategies to enhance social conditions. Social technologies also underpin governmental policies that leverage social theories to promote power dynamics between citizens and officials, fostering inclusive societies (United Nations Department of Economic and Social Affairs, 2020; Leibeseder, 2011). The Internet and digital applications reshape social and civic life by facilitating interactions and access to information (OECD, 2017). This digital landscape fosters a globally interconnected environment, referred to as the "Network Society," where networks are the fundamental unit of social structures (Castells, 2000). Harlow and Guo (2014) note that social technology enables digital activism that transcends geographical boundaries. Additionally, societal changes are linked to significant economic transformations. Turban et al. (2016) highlights the influence of social technology in e-commerce, particularly through mobile computing and smartphones. In the digital economy, social technologies create value beyond traditional goods and services,

expanding into information and knowledge-based assets (Brynjolfsson & Kahin, 2000) and opening opportunities in sectors like healthcare and finance.

Despite the benefits of social technologies, significant risks are associated with digital transformations aimed at enhancing well-being (OECD, 2019). Digitalization introduces new risks, including cyberbullying, hate speech, and terrorism (World Economic Forum[36]). Excessive digital media engagement can adversely affect cognitive and behavioural development, as well as mental and physical health (WEF, 2020; OECD, 2019). Traditional face-to-face interactions have declined, replaced by hyperconnectivity, complicating access to accurate government information for digitally illiterate individuals (WEF, 2020). The automation and digitization of work have fragmented jobs, displaced workers, and threatened job security for traditionally skilled roles in developed nations (UNDP, 2020). Rapid technological advancements have left many in the agricultural sector behind, with reports indicating a significant decline in agricultural employment globally. Between 1991 and 2018, the proportion of total employment in agriculture decreased by 16% worldwide, though it remained stable in Sub-Saharan Africa.

A significant digital gap and unequal access to technology exist worldwide (OECD, 2017). Approximately 3.7 billion people, or half of the global population, do not use the Internet, with about four-fifths of the offline population located in Africa and the Asia-Pacific region (International Telecommunication Union, 2019). The OECD (2020) warns that the growing digital disparity in Africa may lead to substantial job losses. In 2019, 87% of the population in developed countries was online, compared to 47% in developing nations and 19% in least developed countries (LDCs). Despite advancements in communication infrastructure, significant usage gaps remain, particularly among marginalized groups such as women, rural residents, the impoverished, older individuals, and those with low education and literacy levels (ITU, 2020). Furthermore, urban households have nearly double the Internet access rate of rural households, with 72% in urban areas and 38% in rural areas. This

[36] World Economic Forum (2020). The Future of Jobs Report 2020. URL: https://www.weforum.org/publications/the-future-of-jobs-report-2020.

gap is especially pronounced in developing countries, where only 6.3% of rural households in Africa have Internet access compared to 28% in urban areas (ITU, 2020). In West Africa, Internet access in 2018 was 24% for the poorest, 26% for rural residents, and 29% for women, yet e-commerce grew robustly at 9.1% from 2010 to 2017 (OECD, 2020). Notably, older individuals are increasingly falling behind digitally; for instance, 27% of those aged 65 and over in the U.S. do not use the Internet (Anderson, Perrin, Jiang & Kumar, 2019). People with disabilities face additional barriers to accessing the Internet and ICTs due to affordability issues and limited accessibility of devices and programs. Indigenous communities also struggle with digital inclusion, lacking content in their native languages (Anderson et al., 2019).

In relation to Ghana's estimated population of 31.4 million, there are 15.7 million Internet users, 8.2 million social media users, and 41.69 million mobile connections as of January 2021 (Kemp, 2020). From January 2020 to January 2021, Ghana witnessed an increase of 943 thousand Internet users (+6.4%), 2.2 million social media users (+37%), and 3.1 million mobile connections (+8%) (Kemp, 2020). These improved statistics on technological advancements in Ghana align with the OECD's (2017) digital transformation efforts towards ensuring equal access to technologies that can support the achievement of significant development goals. It is crucial to evaluate the impact of digital technologies on the social well-being of Ghanaians within the contemporary context.

Starting with the relationship between technologies and personal well-being, technology's impact on access to educational resources, learning methods, and teacher proficiency addresses households' inequality and well-being challenges (Rauscher & Burns, 2021). The integration of technology into the curriculum aims to promote integrative learning, ethical study, social awareness, and active engagement in authentic tasks (Berson, Lee & Stuckart, 2001). Technology has expanded access, redistributed educational resources, automated assessment processes, and offered learning opportunities to refugees, out-of-school youth, and educators; however, barriers such as limited computer availability and inadequate training hinder

its integration (Berson et al., 2001; VanFossen, 2000). Linking technologies in healthcare has been effective for medical appointments, access to health information, health insurance availability, healthcare payment methods, and ease of access to medical facilities, while addressing stigmatization and marginalization in healthcare. In healthcare, technology influences access to information and services, with AI showing promise in diagnostic imaging (Greenspan, Van Ginneken, Summers, 2016). Remote access tools have transformed primary care, although the use of health-related apps remains limited. Additionally, technology affects work-life balance by facilitating flexible work arrangements and blurring boundaries between work and personal life (Arnold, 2003; Duxbury & Smart, 2011). For instance, ICT tools such as personal digital assistants (PDAs) and universal computing environments manage work-life boundaries through integration and segmentation of work and personal life, providing professionals with increased flexibility and helping to manage job demands, thus supporting work-life integration and segmentation (Cousins & Varshney, 2009; Middleton, Scheepers & Cukier, 2005). However, this also increases workloads and stress (Golden & Geisler, 2007; Grant, Wallace, Spurgeon, 2013). Factors such as gender, age, and family status influence work-life balance dynamics (Bond, 2004; Nicholas & Guzman, 2009). Nicholas and Guzman (2009) highlight that aging employees tend to be less adaptive to ICT-driven work-life integration due to a decreased likelihood of adopting new technologies.

Building on the connection between technology and subjective well-being, this study examines factors like body image acceptance, communication patterns, social interactions, and privacy among family and friends. It highlights the correlation between Internet usage and obesity, with online resources promoting extreme diet and exercise measures (Alger, 2019; Borzekowski, 2010). Non-tech stress management techniques, like improved sleep and physical activity, are shown to reduce stress levels, while technologies like Muse 2 and smartwatches promote relaxation and mental well-being (Alger, 2019). Advancements in wearable technology allow real-time monitoring of brain signals, aiding personalized meditation. Some devices track physiological indicators to help manage stress, and virtual environments are

being explored for stress relief, as evidenced by Airways providing VR headsets for passengers to alleviate flying anxiety (Alger, 2019). Technology affects well-being by facilitating communication and social support within families (O'Keefe & Clarke-Pearson, 2011). Adolescents gain autonomy through access to peer networks, while "technoference" can impact romantic relationships, affecting personal and relational well-being (McDaniel & Coyne, 2016; Boyd, 2015). Although technology enhances connection, excessive use can disrupt interactions during leisure activities, leading to reduced relationship satisfaction and increased conflict (McDaniel, 2015; Przybylski & Weinstein, 2013).

Regarding the relationship between technology and social well-being, technology plays a crucial role as a social contributor in fulfilling personal well-being indicators, including economic and socio-political needs (Castells, 2004). It supports production, civic engagement, and social development while also advancing education, government, healthcare, and cultural transformations. Moreover, technology enhances energy efficiency and environmental sustainability (Castells, 2004). In the workplace, automation and digital innovations have transformed work dynamics (Burgess & Cornell, 2020; Du & Wei, 2020). These advancements have led to new products and industries, boosting productivity and wages (Burgess & Cornell, 2020). The Internet, digitalization, machine learning, robotics, big data, and biotechnology have revolutionized job markets and communication, education, and research. A thorough examination of technological change reveals its significant effects on employment rates and job structures across industries (Du & Wei, 2020).

Also, technological advancements, especially in information and communication technologies (ICT), are key drivers of social inclusion policies (Adam & Fitch, 2006). Digital technologies address issues of identity, language, and social participation, providing solutions to educational disparities, unemployment, social isolation, and healthcare accessibility (Adam & Fitch, 2006). In a digitally empowered society, digital inclusion is vital for economic growth and socio-political reasons, ensuring universal access to communication (Amadeu da Silva, 2001). Technology promotes social inclusion by offering support services for disadvantaged

groups through free access to resources. ICT has particularly benefited marginalized individuals, such as those with disabilities, by helping them overcome mobility and social barriers (Adam & Fitch, 2006). However, challenges remain due to poverty and lack of social support, which hinder access to online resources. Excluding disadvantaged groups from technological resources can undermine social cohesion and perpetuate inequalities (Levitas, 2006). It is essential to eliminate barriers to ensure social inclusion and foster connectivity through new information and communication technologies (Adam & Fitch, 2006).

Additionally, technology influences social actualization through factors such as community decision-making freedom, social status satisfaction, knowledge acquisition, the role of social institutions, and perceptions of society as a supportive environment. Social actualization, in this context, aligns with Maslow's self-actualization, reflecting growth, eudaimonic happiness, and personal development (Maslow, 1968; Waterman, 1993; Ryff, 1989). Individuals with high social actualization are optimistic about society's present and future, recognize collective potential, and believe in the possibility of positive change (Keyes & Shapiro, 2004). Also, Keyes (1998) explained that social actualization encourages positive life evaluations, especially in productive environments. Social actualization offers opportunities for individuals to meet their social and cultural needs (White, 2010). Conversely, negative perceptions of society's future can lower actualization and discourage community engagement. During crises, many turn to social media platforms like Twitter and YouTube to cope with insecurity when societal actualization is threatened (White, 2010).

Moreover, technology is directly link with social and public acceptance (Rideout, 2015). In a digitally connected society, social acceptance is facilitated by technology (Rideout, 2015; Devine-Wright, 2008). Technology helps develop social skills and acceptance strategies, fulfilling needs for family and friendships. Access to social contacts through technology improves interactions (Rideout, 2015; Boyd, 2015; Yarosh, Inkpen & Brush, 2010). Adolescents use smartphones and social media to socialize, highlighting technology's role in social connectedness. However,

digital technologies can create a disconnect between online and offline interactions, potentially impacting the quality of personal connections (Gardner, 2013).

Furthermore, the relationship between technology and social cohesion includes building bonds to reduce exclusion, providing protection against risks, ensuring equal access to resources, fostering belonging and inclusivity, promoting equal employment opportunities, and driving cultural transformation. Digital technology platforms have been linked to participatory cultures and enhanced societal cohesion (Craig & Williams, 2011). Media like Facebook and Twitter facilitate connections and community engagement across diverse identities. However, concerns arise that these connections may often reflect shared ethnicity (Benitez, 2006), and it remains uncertain if digital technologies can bridge interactions across different social categories. Additionally, digital technologies can exacerbate social inequalities by limiting access for those with economic, literacy, or language barriers. For those with access, excessive engagement in virtual communities may hinder face-to-face relationships, potentially diminishing local interactions (Dekker & Engbersen, 2014).

Similarly, the relationship between technology and institutional trust reveals that governments, traditional systems, and expert structures serve as institutional pillars of trust alongside technology, albeit with certain limitations. As highlighted by Sztompka (1999) and Hardin (2002), existing frameworks lack a comprehensive theoretical foundation that fully integrates all relevant aspects of trust and digital technologies, failing to anticipate the current significance and impact of digital technologies on institutional trust. The rise of platformization and datafication has enhanced public values and services (Poell, Nieborg & Van Dijk, 2020). Citizens' reliance on global technological platforms influences institutions' capacity to govern democratically. Online infrastructures have improved communication and expanded social and economic activities, emphasizing "trust and governance". Research shows that technology enhances government reforms and citizen political engagement (Bowler & Donovan, 2004; Tolbert & Mossberger, 2006). Trust is crucial for shaping technology policy (Poell et al., 2019). A trustworthy digital environment counters the weaponization of internet services (Suzor, 2019). Van Dijk (2020)

highlights that building institutional and technological trust requires collaboration among private, public, and civil society actors. This broader perspective on digital technology promotes public values and fosters trust in democratic institutions, emphasizing trustworthiness, reliability, and transparency in socio-technical power dynamics (Van Dijk, 2020).

The theoretical frameworks used in this study to examine the influence of technology on social well-being are the Technology Acceptance Model (TAM) and Technological Determinism (TD). The TAM, introduced by Fred Davis in 1989, predicts technology adoption based on "perceived usefulness" and "perceived ease of use" (Smahel, Macháčková, Smahelová, Cevelíček, Almenara, Holubčíková, 2018). Users are likely to adopt technology for societal challenges if they find it beneficial and user-friendly. For example, Lunney, A., Cunningham and Eastin (2016) validated the TAM by demonstrating the health benefits of wearable fitness technology. Additionally, the Internet serves as a key information source (Boyd & Ellison, 2007), while social networking sites positively correlate with self-esteem (Gonzales & Hancock, 2011; Valkenburg, Koutamanis, Vossen, 2017) and enhance life satisfaction through social support (Oh, Ozkaya, LaRose, 2014). Despite its utility, the TAM has limitations, such as its inability to fully explain individual behaviour and the factors influencing technology adoption, like cost and structural requirements (Ajibade, 2018; Hai & Alam Kazmi, 2015).

In addition, TD credited to Thorstein Veblen asserts that technology shapes societal structures and values (Smith & Marx, 1994). It posits that technological progress influences societal evolution, transforming production relations and cultural superstructures (Adler, 2006). The core tenet of TD is that advancements in technology drive changes in social organization, often leading to shifts from "capitalist" to "industrial" to "modern" societies. For instance, the rise of the Internet has not only revolutionized business practices but also altered social interactions and cultural norms. However, critics argue that TD presents a one-sided view, suggesting that society must adapt to new technologies. This perspective overlooks the reciprocal influence between society and technology, where cultural context also shapes

technological development (Castells, 2000). It is argued that societal needs, values, and conditions dictate the direction of technological innovation, emphasizing that technological change is as much a product of social dynamics as it is a driver of them. Toffler (2022) posits that social conditions dictate human psychology and technological progress, illustrating the inventiveness of society in utilizing technology to address various social processes.

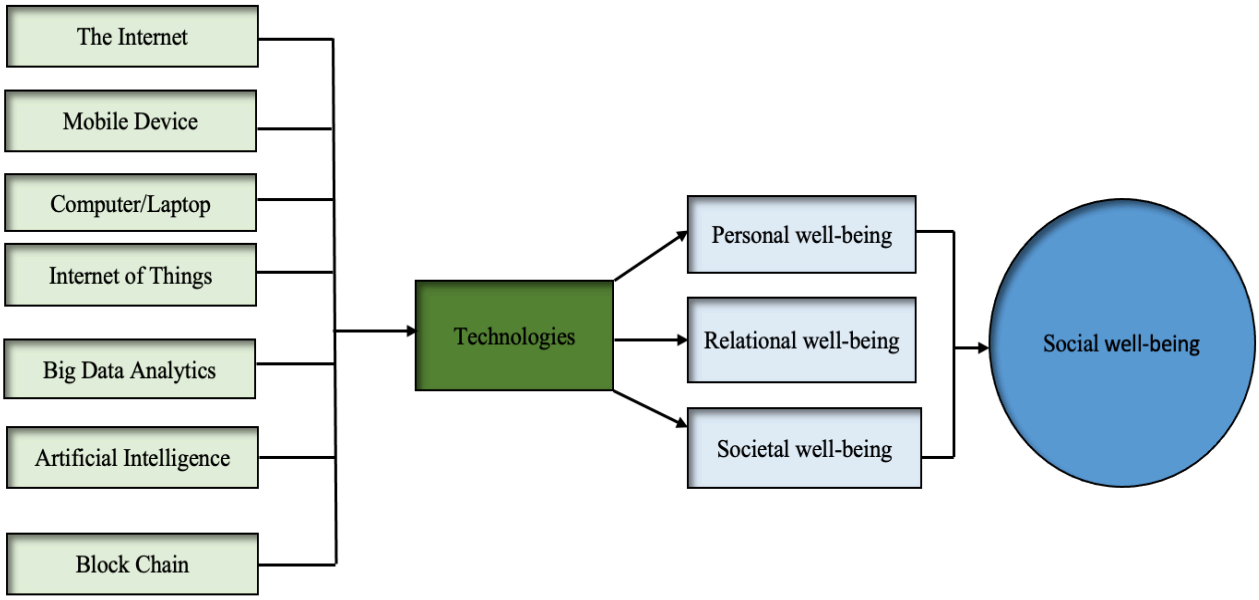

Fig. 2. A conceptual framework for technology – social well-being

The conceptual framework in Figure 2 indicates that there are seven types of technologies available for use in Ghana, including the internet, mobile devices, computers/laptops, the Internet of Things, blockchain, and artificial intelligence. It further outlines the framework of the three components that define the social well-being of Ghanaians as personal, relational, and societal well-being. Linking the various theoretical assumptions of the TAM and TD suggests a relationship between technology and the social well-being of Ghanaians. In terms of the TAM, the perceived ease of use of available technologies by Ghanaian households is seen as instrumental in achieving specific goals such as improving social well-being (Smahel et al., 2018). Similarly, Technological Determinism theorists believe that the use of

technologies by Ghanaian households influences and enhances personal, relational, and societal well-being (Adler, 2006).

Therefore, Figure 2 is based on the premise that the use of all types of technologies has an impact on all components of social well-being. This implies that technologies can be utilized to address specific issues in Ghanaian society by enhancing the personal, relational, and societal well-being aspects of social well-being. As supported by literature, the current use of technologies can influence health, facilitate frequent communication with family and friends, and provide social support (Boyd & Ellison, 2007; Valkenburg et al., 2017; Oh et al., 2014).

This task analysis examines the technologies that can influence and enhance the social well-being of Ghanaians. The analysis covers both descriptive and inferential statistics. First, a descriptive analysis is presented in Table 24, showcasing the types of technologies and their modes of use, access, and provision at the Ghanaian household level. The other aspect of the study involves an inferential analysis, which explores three key relationships: (1) the relationship between the types of technologies and personal well-being, encompassing factors such as education, health, and work activities; (2) the relationship between the types of technologies and relational well-being, including body appearance, acceptance, and relationships with family and friends; and (3) the relationships between the types of technologies and societal well-being, which encompasses social contribution, inclusion, integration, actualization, acceptance, coherence, and institutional trust. The findings for this task are presented in Tables 25, 26, and 27, respectively. To ensure the validity of the analysis, the predictor variables were tested a priori to verify that there was no violation of the assumption of no multicollinearity.

From Table 23, many Ghanaians accessed and used the internet (41.1%), which was provided by the private sector. 80% of Ghanaian households used mobile phones that were individually or privately owned, while approximately 40% of them (39.8%) utilized desktop computers or laptops that were privately owned. However, most Ghanaians did not use the Internet of things (59.3%), Big Data (60.4%), Artificial Intelligence (56%), and Blockchain (71.6%). The small percentage of

Ghanaians who used these technologies, namely Internet of things (11.3%), Big Data (12%), Artificial Intelligence (16.0%), and Blockchain (7.6%), accessed them through private sector providers. From the findings in Table 23, the majority (80%) use mobile devices owned by themselves. This contradicts the International Telecommunication Union-ITU (2017) findings that 3.5 billion people around the world used the Internet, including 70% of the world's younger population. The Internet is the most popular social media platform (Zhang, Wang, Cao & Wang, 2019).

Table 23

Types of technologies and their medium of use, access and provision

Type of technologies	**Medium of use/access/provision**			
	Public N (%)	Private N (%)	Both N (%)	None N (%)
Internet	268 (24.4)	452 (41.1)	228 (20.7)	152 (13.8)
Mobile phone devices	52 (4.7)	880 (80)	152 (13.8)	16 (1.5)
Computer/Laptop	94 (8.5)	438 (39.8)	232 (21.1)	336 (30.5)
Internet of Things	92 (8.4)	124 (11.3)	(232 (21.1)	652 (59.3)
Big Data analytics	116 (10.5)	132 (12)	188 (17.1)	664 (60.4)
Artificial Intelligence	112 (10.2)	176 (16)	196 (17.8)	616 (56)
Block Chain	60 (5.5)	84 (7.6)	168 (15.3)	788 (71.6

Table 24

Multiple regression analysis showing the influence of technologies on personal well-being

Types of technologies (Base = No use of technology)	**Personal well-being**		
	Education	**Health**	**Work-life activities**
	B	B	B
Constant	3.164*** (0.062)	3.449*** (0.051)	2.865*** (0.068)
Internet	0.183*** (0.058)	0.173*** (0.048)	0.048 (0.064)
Mobile devices	0.124* (0.071)	-0.148** (0.059)	0.317*** (0.078)
Computer/Laptop	0.423*** (0.057)	0.296*** (0.047)	0.346*** (0.062)
Internet of things	0.09 (0.073)	.366*** (0.06)	0.041 (0.08)

Types of technologies (Base = No use of technology)	Personal well-being		
	Education	**Health**	**Work-life activities**
	B	B	B
Big Data analytics	-0.005 (0.068)	0.065 (0.056)	0.089 (0.074)
Artificial Intelligence	0.098 (0.062)	-0.056 (0.051)	0.013 (0.068)
Block Chain	-0.457*** (0.085)	-0.144** (0.069)	-0.219** (0.092)
R R^2 Adjusted R^2 df F-Value Observations Standard errors in parentheses	0.358[a] 0.128 0.122 (7, 1092) 22.897 1100 *** p<0.01, ** p<0.05, * p<0.1	0.376[a] 0.142 0.136 (7, 1092) 25.735 1100 *** p<0.01, ** p<0.05, * p<0.1	0.283[a] 0.08 0.074 (7, 1092) 13.569 1100 *** p<0.01, ** p<0.05, * p<0.1

H_0: Technologies do not influence or enhance education

The Internet, Mobile Device, Computer/Desktop, Internet of things, Big Data, Artificial Intelligence and Block Chain were used to predict education as shown in Table 24. The prediction model was statistically significant F (7, 1092) = 22.897, p (0.000) < 0.05 and accounted for approximately 12.2% of the variance of education (adjusted R-square value of 0.122). The estimated model coefficients are given as: Predicted Education = 3.164 + 0.183 (Internet) + 0.124 (Mobile phone devices) + 0.423 (Computer/Laptop) + 0.09 (Internet of things) - 0.005 (Big Data Analytics) + 0.098 (Artificial Intelligence) -0.457 (Block Chain).

Considering this, the study accepts the alternate hypothesis that technologies have influences on education. Education was primarily predicted by use of the Internet, Mobile phone devices, Computer/Desktop/Laptop and Block Chain. For the internet, there is 18.3% increase in education for each extra use of the internet. Also, for an additional use of mobile phone devices, education increases by 12.4%. Similarly, for every unit increase in the use of computers there is 42.3% increase in

education, holding all other variables constant. However, users of Block Chain have 8.5% decrease in the education than non-users. Therefore, considering the findings in Table 24, education was predicted by higher levels of the use of computers (42.4%), the internet (18.3%), and mobile phone devices (12.4%), and to some extent by lower levels of the use of blockchain (8.5%). This supports Burns' (2021) research findings that technology has increased access, redistributed educational inputs, automated educational processes such as assessment, and provided learning to refugees, out-of-school youth, and instructors.

H_0: Technologies do not influence or enhance health

In Table 24, a multiple linear regression was conducted to test if technologies predicted health. The prediction model, F (7, 1092) = 25.735, p (0.000) < 0.05, was statistically significant and explained 13.6% of the variance in health (Adjusted R-square value of 13.6). The estimated model coefficients are given as: Predicted Health = 3.449 +0.173 (Internet) -0.148 (Mobile devices) +0.296 (Computer/Laptop) +0.366 (Internet of things) +0.065 (Big Data analytics) -0.056 (Artificial Intelligence) -0.144 (Block Chain).

Considering this, the study accepts the alternate hypothesis that technologies have influences on health. The Internet, Mobile Devices, Computer/Laptop, Internet of Things, and Block Chain statistically significantly predicted health. For each additional use of the internet results in an increase in health of 17.3%. Again, each additional increase in computer uses results in a 29.6% increase in health. There is also 36.6% increase in health for each extra use of internet of things. However, for every unit increase in the use of mobile devices, there is a 14.8% decrease in health, and users of block chains have a 14.4% decrease in health as compared to non-users of block chains. Thus, in Table 24, health was predicted by higher levels of the use of the Internet of things (36.6%), computers (29.6%), and the Internet (17.3%), and to some extent by lower levels of the use of mobile devices (14.8%) and blockchain (14.4%). Unlike this finding, studies show that advances in healthcare infrastructure

and design have led to the adoption of AI to satisfy contemporary health and care demands (Combi, Pozzani, Pozzi, 2016; Greenspan et al., 2016).

H_0: Technologies do not influence work-life activities

The Internet, Mobile devices, Computer, Internet of things, Big Data, Artificial Intelligence and Block Chain were used to predict work-life activities as shown in Table 24. The prediction model was statistically significant F (7, 1092) = 13.569, p (0.000) < 0.05 and accounted for approximately 7.4% of the variance of work-life activities (adjusted R-square value of .074). The estimated model coefficients are given as: Predicted work-life activities= 2.865 +0.048 (Internet) +0.317 (Mobile devices) + 0.346 (Computer/Laptop) + 0.041 (Internet of things) + 0.089 (Big Data analytics) +0.013 (Artificial Intelligence) -0.219 (Block Chain).

Considering this, the study accepts the alternate hypothesis that technologies have influence on work-life activities. Work-life activities were primarily predicted by the use Mobile Devices, Computers and Block Chain. For each additional use of mobile devices, there is a 31.7% increase in work-life activities. Furthermore, with an increase in computer use, work-life activities increased by 34.6%. However, Block Chain users have a 21.9% decrease in work-life activities compared to non-users. It is therefore inferred in Table 24 that work-life activities were predicted by higher levels of the use of computers (34.6%) and mobile phone devices (31.7%), and to some extent by lower levels of the use of blockchain (21.9%). Studies evidence that the use of mobile phones enables ubiquitous work settings through web-based communications (e-mail, webinar) outside the confines of the office (Duxbury & Smart, 2011); provide more flexibility than traditional office workers to meet work, non-work, and family needs and invariably increase the permeability of work-life boundaries (Haddon & Silverstone, 2000; Valcour & Hunter, 2005).

Table 25

Multiple regression analysis showing the influence of technologies on relational well-being

Types of technologies (Base = No use of technology)	**Relational well-being**	
	Body, appearance and acceptance (BAA)	Relations with families and friends (RFF)
	B	B
Constant	3.522 *** (0.051)	3.737*** (0.059)
Internet	0.051 (0.048)	-0.048 (0.055)
Mobile phone/Devices	-0.072 (0.058)	0.029* (0.067)
Computer/Laptop	0.302*** (0.047)	0.236*** (0.054)
Internet of things	0.116* (0.06)	-0.323*** (0.069)
Big Data analytics	0.1* (0.055)	0.181*** (0.064)
Artificial Intelligence	0.053 (0.051)	0.105* (0.059)
Block Chain	-.0259*** (0.069)	-0.257*** (0.08)
R R^2 Adjusted R^2 df F-Value Observations Standard errors in parentheses	0.287[a] 0.082 0.076 (7, 1092) 13.952 1100 *** p<0.01, ** p<0.05, * p<0.1	0.233[a] 0.054 0.048 (7, 1092) 8.949 1100 *** p<0.01, ** p<0.05, * p<0.1

H_0: Technologies do not influence or enhance body appearance and acceptance

In Table 25, a multiple linear regression was conducted to test if technologies predicted body appearance and acceptance. The prediction model, F (7, 1092) = 25.735, p (0.000) < .05, was statistically significant and explained 7.6% of the variance in body appearance and acceptance (Adjusted R-square value of .076). The estimated model coefficients are given as: Predicted Health= 3.522 + 0.051

(Internet) -0.072 (Mobile device) + 0.302 (Computer/Laptop) + 0.116 (Internet of things) + 0.1 (Big Data analytics) +0.053 (Artificial Intelligence) -0.259 (Block Chain).

Considering this, the study accepts the alternate hypothesis that technologies have influences on body, appearance and acceptance. The Computer/Laptop, Internet of things, Big Data analytics and Block Chain statistically significantly predicted body, appearance and acceptance. For each additional use of the computers/laptops contribute 30.2% increase in body, appearance and acceptance. Furthermore, each additional increase in the use of Internet of things results in a 11.6% increase in body, appearance and acceptance. There is also 10% increase in body, appearance and acceptance for each extra use of internet of things. However, for every unit increase in the use of block chain, there is a 25.9% decrease in body, appearance and acceptance. Thus, inferring from the findings in Table 25, body, appearance, and acceptance were predicted by higher levels of the use of the computer (30.2%), the Internet of Things (11.6%), and Big Data Analytics (10%), and to some extent by lower levels of the use of blockchain (25.9%). Research supporting these findings shows how Internet use relates to childhood and adult obesity (Alger, 2019; Borzekowski, 2010). On the Internet, there are thousands of websites, blogs, videos, chat rooms, photos, and advice on how to go to extremes with diet and exercise to improve body form and appearance (Borzekowski, 2010). Furthermore, various technology-free stress management measures such as getting more sleep, exercising regularly, and taking regular screen breaks all lead to lower stress levels (Alger, 2019).

H_0: Technologies do not influence or enhance the relations with families and friends

The Internet, Mobile sevice, Computer/Desktop, Internet of things, Big Data, Artificial Intelligence and Block Chain were used to predict relations with families and friends as shown in Table 25. The prediction model was statistically significant $F(7, 1092) = 8.949$, $p(0.000) < .05$ and accounted for approximately 4.8% of the variance in relations with families and friends (adjusted R-square value of 0.048).

The estimated model coefficients are given as: Predicted relations with families and friends = 3.737 -0.048 (Internet) +0.029 (Mobile phone) + 0.236 (Computer/Laptop) -0.323 (Internet of things) + 0.181 (Big Data analytics) + 0.105 (Artificial Intelligence) - 0.257 (Block Chain).

Considering this, the study accepts **the alternate hypothesis that technologies have influences on relations with families and friends**. Relations with families and friends were primarily predicted by use of technologies. For the mobile devices, there is 2.9% increase in relations with families and friends. Also, for each unit increase in the use of Computer/Laptop, results in 23.6% increase in relations with families and friends. Furthermore, for an additional use of Big Data analytics, relations with families and friends increase by 18.1%. There is 10.5% increase in body, appearance and acceptance for each extra use of Artificial Intelligence. Meanwhile, for every unit increase in the use of Internet of things, there is 32.3% decrease in relations with families and friends, similar to the 25.7% decrease in relations with families and friends for each unit increase in the use of Block Chain. It can therefore be deduced that in Table 25, the relations with families and friends were predicted by higher levels of the use of computers (23.6%), Big Data analytics (18.1%), and Mobile devices (2.9%), and to some extent by lower levels of the use of Internet of things (32.3%) and Blockchain (25.7%). Literature similar to the findings reveals that technology aids communication, multitasking, emotional regulation, and social support among family members. It has improved emotional bonds by expediting communication and information exchange (Carvalho, Francisco & Relvas, 2015). Many communications between couples now happen via computers and cell phones through email, chat, and text messaging, resulting in beneficial family relations (Pettigrew, 2009).

Multiple regression analysis showing the role of technologies in societal well-being

Types of technologies (Base = No use of technology)	**Societal well-being**					
	Social contribution	**Social inclusion**	**Social actualization**	**Social acceptance**	**Social coherence**	**Institutional trust**
	B	B	B	B	B	B
Constant	3.282***	3.563***	3.571***	3.331***	3.054***	3.169***
	(0.073)	(0.068)	(0.064)	(0.057)	(0.058)	(0.065)
Internet	0.264***	0.105*	0.001	0.02	0.063	0.146**
	(0.069)	(0.063)	(0.06)	(0.053)	(0.054)	(0.06)
Mobile phone devices	-.0458***	-0.069	0.054	-0.026	0.054	-0.163**
	(0.084)	(0.078)	(0.074)	(0.065)	(0.067)	(0.074)
Computer/Laptop	0.387***	0.21***	0.287***	0.335***	0.350***	0.285***
	(0.067)	(0.062)	0(.059)	(0.052)	(0.053)	(0.059)
Internet of things	-0.089	-0.161**	-0.255***	-0.015	-0.008	0.143*
	(0.086)	(0.08)	(0.076)	(0.067)	(0.068)	(0.076)
Big Data analytics	0.219***	-.0118	-0.339***	0.081	0.064	0.068
	(0.08)	(0.074)	(0.07)	(0.062)	(0.063)	(0.07)
Artificial Intelligence	-0.063	0.183***	0.196***	-0.222***	-0.142**	-0.217***
	(0.074)	(0.068)	(0.065)	(0.057)	(0.058)	(0.065)
Block Chain	0.138	0.033	0.224**	0.178**	-0.011	-0.052
	(0.1)	(0.092)	(0.088)	(0.078)	(0.079)	(0.088)
R	0.308[a]	0.168[a]	0.228[a]	0.258[a]	0.258[a]	0.237[a]
R^2	0.095	0.028	0.052	0.066	0.066	0.056
Adjusted R^2	0.089	0.022	0.046	0.06	0.0600	0.05
df	(7, 1092)	(7, 1092)	(7, 1092)	(7, 1092)	(7, 1092)	(7, 1092)
F-Value	16.3600	4.529	8.536	11.100	11.099	9.261
Observations	1100	1100	1100	1100	1100	1100
Standard errors in parentheses	*** p<0.01, ** p<0.05, * p<0.1	*** p<0.01, **p<0.05, * p<0.1	*** p<0.01, **p<0.05, * p<0.1	*** p<0.01, ** p<0.05, * p<0.1	*** p<0.01, **p<0.05, * p<0.1	*** p<0.01, **p<0.05, * p<0.1

H_0: Technologies do not influence or enhance social contribution

The Internet, Mobile device, Computer/Desktop, Internet of things, Big Data, Artificial Intelligence and Block Chain were used to predict social contribution as shown in Table 26. The prediction model was statistically significant F (7, 1092) = 16.36, p (0.000) < 0.05 and accounted for approximately 8.9% of the variance in social contributions (adjusted R-square value of .089). The estimated model coefficients are given as: Predicted social contribution = 3.282 + 264 (Internet) - 458 (Mobile devices) + 0.387 (Computer/Laptop) - 0.089 (Internet of things) + 0.219 (Big Data analytics) - 0.063 (Artificial Intelligence) + 0.138 (Block Chain).

Considering this, the study accepts the alternate hypothesis that technologies influence social contributions. Social contribution was primarily predicted by use of the Internet, Mobile devices, Computer/Laptop and Big Data analytics. There is 26.4% increase in social contribution for each extra use of the Internet. Also, for each unit increase in the use of Computer/Laptop, results in 38.7% increase in social contribution. Furthermore, for an additional use of Big Data analytics, social contribution increases by 21.9%. Meanwhile, every unit increase in Mobile Devices, there is 45.8% decrease in social contribution. Referring to the findings in Table 26, social contribution was predicted by higher levels of the use of computers (38.7%), the Internet (26.4%), and Big Data analytics (21.9%), and to some extent by lower levels of the use of Mobile devices (45.8%). This is corroborated by literature that technology plays a critical role in society's socioeconomic growth (Adam & Fitch, 2006). Technology has aided in the advancement of education, government, healthcare, renewable and efficient energy, types of production, participation, civic engagement, as well as some significant religious and social shifts (Castells, 2004).

H_0: Technologies do not influence or enhance social inclusion

The Internet, Mobile devicea, Computer/Desktop, Internet of things, Big Data, Artificial Intelligence and Block Chain were used to predict social inclusion as shown in Table 26. The prediction model was statistically significant *F* (7, 1092) = 4.529, p (0.000) < 0.05 and accounted for approximately 2.2% of the variance in

social inclusion (adjusted R-square value of .022). The estimated model coefficients are given as: Predicted social inclusion = 3.563 + 0.105 (Internet) - 0.069 (Mobile devices) + 0.21 (Computer/Laptop) - 0.161 (Internet of things) - 0.118 (Big Data analytics) + 0.183 (Artificial Intelligence) + 0.033 (Block Chain).

Considering this, the study accepts the alternate hypothesis that technologies influence social inclusion. Social inclusion was primarily predicted by use of the Internet, Computer/Laptop, the Internet of things and Artificial Intelligence. For every unit increase in the use of the Internet results in 10.5% increase in social inclusion. Also, there is 21% increase in social inclusion for each extra use of the computer. Furthermore, for an additional use of Artificial Intelligence, social inclusion increases by 18.3%. But every unit increase in the use of the Internet of things, there is 16.1% decrease in social inclusion. In sum, Table 26 revealed that social inclusion was predicted by higher levels of the use of computers (21%), Artificial Intelligence (18.3%), and the Internet (10.5%), and to some extent by lower levels of the use of the Internet of things (16.1%). According to Adams and Fitch (2006), the engines of social inclusion policies are technologies (ICT). Digital technologies address a variety of challenges, including identity, language, social involvement, civil society, educational underachievement, unemployment, social isolation, and healthcare services, as well as assisting in the cost-cutting of healthcare (Adams & Fitch, 2006; Castells, 1997). Especially in the areas of free access to resources and the fundamental right to communication, technologies decrease exclusion gaps and guarantee fair support services for disadvantaged groups (Amadeu da Silva, 2001).

H_0: Technologies do not influence or enhance social actualization

As shown in Table 26, for social actualization, the prediction model was statistically significant F (7, 1092) = 8.536 p (0.000) < 0.05 and accounted for approximately 4.6% of the variance in social actualization (adjusted R-square value of 0.046). The estimated model coefficients are given as: Predicted social actualization = 3.571 + 0.001 (Internet) + 0.054 (Mobile devices) + 0.287 (Computer/Laptop) -

0.225 (Internet of things) -0.339 (Big Data analytics) + 0.196 (Artificial Intelligence) + 0.224 (Block Chain).

Considering this, the study accepts the alternate hypothesis that technologies influence social actualization. Social actualization was primarily predicted by the use of Computer/Laptop, the Internet of things, Big Data analytics, Artificial Intelligence and Block Chain. For every unit increase in the use of the computer, there is the probability of increasing social actualization by 28.7%. There is also 19.6% increase in social actualization for each extra unit of Artificial Intelligence. Furthermore, users of Block Chain have the probability of increasing social actualization by 22.4% for an additional use of Block Chain. But for every unit increase in the use of the Internet of Things, there is 25.5% decrease in social actualization, and for additional use of Big Data Analytics, social actualization decreases by 33.9%. It can be deduced that in Table 26, social actualization was predicted by higher levels of the use of computers (28.7%), Blockchain (22.4%), and Artificial Intelligence (19.6%), and to some extent by lower levels of the use of Big Data analytics (33.9%) and Internet of things (25.5%). Like the findings of the study, the use of technologies facilitates social actualization to offer various types of social and cultural opportunities for its members to fulfil some or all of these needs (White, 2010). When social actualization aspirations are challenged by unfulfilled societal requirements, many people feel compelled to use social media platforms like Twitter and YouTube to relieve uncertainty (White, 2010).

H_0: Technologies do not influence or enhance social acceptance

It is seen in in Table 26 for social acceptance, the prediction model was statistically significant F (7, 1092) = 11.1 p (0.000) < 0.05 and accounted for approximately 6% of the variance in social acceptance (adjusted R-square value of .060). The estimated model coefficients are given as: Predicted social acceptance = 3.331 + 0.02 (Internet) -0.026 (Mobile devices) + 0.335 (Computer/Laptop) -0.015 (Internet of things) + 0.081 (Big Data analytics) -0.222 (Artificial Intelligence) + 0.178 (Block Chain).

Considering this, the study accepts the alternate hypothesis that technologies influence social acceptance. Social acceptance was primarily predicted by the use of Computer/Laptop, Artificial Intelligence and Block Chain. For every unit increase in the use of the computer, there is the probability of increasing social acceptance by 33.5%. There is also 17.8% increase in social acceptance for each extra unit of Block Chain. However, for every unit increase in the use of Artificial Intelligence, there is 22.2% decrease in social acceptance. Moreover, the result in Table 26 revealed that social acceptance was predicted by higher levels of the use of computers (33.5%), Blockchain (17.8%), and to some extent by lower levels of the use of Artificial Intelligence (22.2%). Existing studies support that social acceptance is effectively executed in a digitally connected society (Rideout, 2015; Devine-Wright, 2008). Fulfilling the needs of family, friendship, and intimacy are increasingly leveraged by networked technology. Access to social contact through the use of smartphones and social media, video chat, texting, and instant messages to socialize, make plans, provide support, improve social connectedness, social interaction, and acceptance (Rideout, 2015; Boyd, 2015).

H_0: Technologies do not influence or enhance social coherence

Table 26 further shows that for social coherence, the prediction model was statistically significant F (7, 1092) = 11.099 p (0.000) < 0.05 and accounted for approximately 6% of the variance in social coherence (adjusted R-square value of .060). The estimated model coefficients are given as: Predicted social coherence = 3.053 + 0.063 (Internet) + 0.054 (Mobile devices) + 0.35 (Computer/Laptop) - 0.008 (Internet of things) + 0.064 (Big Data analytics) -0.142 (Artificial Intelligence) - 0.011 (Block Chain).

Considering this, the study accepts the alternate hypothesis that technologies influence social coherence. Social coherence was primarily predicted by the use of Computer/Laptop, and Artificial Intelligence. For every unit increase in the use of the computer, there is the probability of increasing social coherence by 35%. However, for every unit increase in the use of Artificial Intelligence, there is 14.2%

decrease in social coherence. Therefore, Table 26 indicated how social coherence was predicted by higher levels of the use of computers (35%) and to some extent by lower levels of the use of Artificial Intelligence (14.2%). According to Marlowe, Bartley, and Collins (2016), social and digital technologies have a link that enhances social contact and emphasizes the necessity of social cohesiveness. For a wide spectrum of individuals and groups, media platforms have become crucial tools for connection and belonging. These technologies have a significant impact on daily life, providing new opportunities for community engagement, attachments across multiple forms of identity, and influencing a sense of belonging in increasingly diverse societies, as well as strengthening ties within locally based communities based on shared ethnicity (Craig & Williams, 2011; Gifford & Wilding, 2013; Lievrouw, 2001).

H_0: Technologies do not influence or enhance institutional trust

As shown in Table 26, for institutional trust, the prediction model was statistically significant F (7, 1092) = 9.261 p (0.000) < 0.05 and accounted for approximately 5% of the variance in institutional trust (adjusted R-square value of .050). The estimated model coefficients are given as: Predicted institutional trust = 3.169 + 0.146 (Internet) -0.163 (Mobile devices) + 0.285 (Computer/Laptop) + 0.143 (Internet of things) + 0.068 (Big Data analytics) -0.217 (Artificial Intelligence) -0.052 (Block Chain).

Considering this, the study accepts the alternate hypothesis that technologies influence institutional trust. Institutional trust was primarily predicted by the use of the Internet, Mobile Device, Computer/Laptop, the Internet of things and Artificial Intelligence. For every unit increase in the use of the Internet, there is the probability of increasing institutional trust by 14.6%. There is also 28.5% increase in institutional trust for each extra unit of the use of computer. Furthermore, users of Internet of things have the probability of increasing institutional trust by 14.3% for an additional use of Internet of things. But for every unit increase in the use of Mobile devices, there is 16.3% decrease in institutional trust, and for additional use of

Artificial Intelligence, institutional trust decreases by 21.7%. It can therefore be concluded that institutional trust was predicted by higher levels of the use of computers (28.5%), Internet (14.6%), and Internet of things (14.3%), and to some extent by lower levels of the use of Artificial Intelligence (21.7%) and Mobile devices (16.3%). Similar to this finding, Poell et al. (2019) revealed that a trustworthy digital environment is considered to counter the weaponization of Internet services (Suzor, 2019). Van Dijk (2020) states that ensuring institutional and technological trust involves negotiated efforts between governing private (corporate, consumer), public (institutional, governmental), and civil society (NGOs, citizens) actors. The global dependence on digital technologies to govern societies has promoted public values and established trust in democratic institutions. The use of technology is concerned with trustworthiness, reliability, and transparency in public values and institutions; it promotes trust at the heart of a socio-technical and ideological power shift (Van Dijk, 2020).

General design of the study

This study was carried out in Ghana, a West African nation. Ghana is situated next to the Gulf of Guinea and the Atlantic Ocean to the south, sharing its borders with Ivory Coast to the west, Burkina Faso to the north, and Togo to the east (World Bank, 2021). Historically, Ghana has been viewed as a model for other African countries, having a relatively stable history and being the first nation south of the Sahara to gain independence from colonial rule. The country spans an area of 239,567 km² and features a variety of biomes, from coastal savannas to tropical rainforests. With a population nearing 35 million, Ghana is the second most populous nation in West Africa. Accra serves as the capital and largest city, while other notable cities include Kumasi, Tamale, and Sekondi-Takoradi (World Bank, 2021).

Ghana's GDP grew by 0.4% in 2020, but in the first quarter of 2021, the economy expanded by 3.1% year-on-year, following a 3.3% increase in the previous period (World Bank[37]). Despite the impressive economic performance, there exists a

[37] World Bank (2021). In Ghana. URL: https://www.worldbank.org/en/country/ghana/overview#1.

gap between economic growth and well-being, and the measured growth figures often do not directly impact people's livelihoods (Aryeetey & Fosu, 2002). Various factors influenced the selection of study areas, including worsening income inequalities and declining living standards (Osei-Assibey, 2014; GSS, 2015). Additionally, concerns exist regarding social fabric breakdown, community cohesion challenges, low educational performance, increased corruption, and youth unemployment issues described as a national security threat (Fosu, 2015; Kangmennaang et al., 2019).

Although Ghana now has 16 regions, the study was based on the 2010 Population and Household Census, which categorized Ghana into 10 administrative areas in the north and south. There is a significant spatial disparity in income and wealth between the northern and southern regions across the 10 administrative regions, as well as gender disparities in access to and control of various assets such as jobs, political participation, education, and social capital (GSS, 2015; Osei-Assibey, 2014).

There is a growing recognition for a comprehensive analysis of Ghana's development agenda. Failure to understand the multi-dimensional factors affecting well-being may hinder achieving shared prosperity. Ghana is home to diverse ethnic groups with varying cultural backgrounds, access to resources, connections to global markets, exposure, and world views that can influence perceptions of inequality and well-being. Based on these considerations, the study areas selected were the Cape Coast Metropolis and Bolgatanga Municipal to ensure fair national geographical representation.

According to the 2010 Population and Housing Census, the population of the Cape Coast Metropolis is 169,894, making up 7.7% of the region's total population, with males accounting for 48.7% and females for 51.3%. 23% reside in rural areas. The metropolis has a household population of 140,405 distributed among 40,386 households, with an average household size of 3.5 individuals. The housing stock in the metropolis stands at 17,738, representing 5.1% of the total number of houses in the Central Region, with an average of 7.9 persons per household (GSS, 2014a).

Of the population aged 11 years and above, approximately 90% are literate, while 10% are non-literate. However, the proportion of literate males is higher (94.1%) than that of females (85.6%). Around 54.7% aged 15 years and older are economically active, while 45.3% are not. Among the employed population, about 32.5% work as service and sales workers, 23.6% are in craft and related trades, 13.2% are professionals, and 6.8% are skilled agricultural, forestry, and fishery workers (GSS, 2014a).

In terms of technology usage, 69.5% aged 12 years and above own mobile phones, with men constituting 74.1% compared to 65.2% of females. Approximately 32% of the population aged 12 years and older use Internet facilities in the metropolis (GSS, 2014a).

The Bolgatanga Municipality has a total population of 131,550, accounting for 12.6% of the population of the Upper East Region. The male population is 62,783, representing 47.7%, while the female population is 68,767, making up 52%. Half (50.2%) of the municipal population resides in rural areas. There are 129,696 people in households, with an average household size of five persons, which is higher in rural areas (5.5) than in the urban ones (4.4). The municipality has 14,523 houses with an average of 1.8 households per house and an average of nine persons per house (GSS, 2014b).

Nearly two-thirds (64.6%) of the population aged 11 years and older are literate, with the proportion of literate males (72.8%) higher than females (57.4%). More than 70% aged 15 years and older are economically active. Among the economically active population, 97.6% are employed and 2.4% – unemployed. Around 38% of the employed are skilled agricultural, forestry, and fishery workers, nearly one-fifth are craft and related trades workers, while service and sales workers constitute 18.5% of the employed population in the Municipality (GSS, 2014b).

In terms of technology usage, about a quarter (24.2%) of the population aged 12 years and older in the Bolgatanga Municipality own a mobile phone, with more males (49.7%) than females (38.7%). Additionally, 15.5% aged 12 years and older use Internet facilities, with more males than females. Approximately one in every

10 households (9.4%) in the Municipality have a desktop or laptop computer, with more male-headed households (10.7%) than female-headed households (7%) (GSS, 2014b).

Recognizing this gap, the current study aims to explore distinct methods for measuring and enhancing the social well-being of Ghanaians in contemporary settings by using a comprehensive positivist perspective on epistemology, ontology, methodology, and research methods (Creswell, 2003; Creswell & Plano Clark, 2007; Prowse, 2010). An explanatory research design was chosen to understand the phenomenon of the study; specifically, the approaches to measuring and ensuring social well-being. The study population comprised household members in the Cape Coast Metropolis and the Bolgatanga Municipality of Ghana. The study population included household members from the Cape Coast Metropolis and Bolgatanga Municipality, with two criteria for participation: residency for at least five months and being 18 years or older.

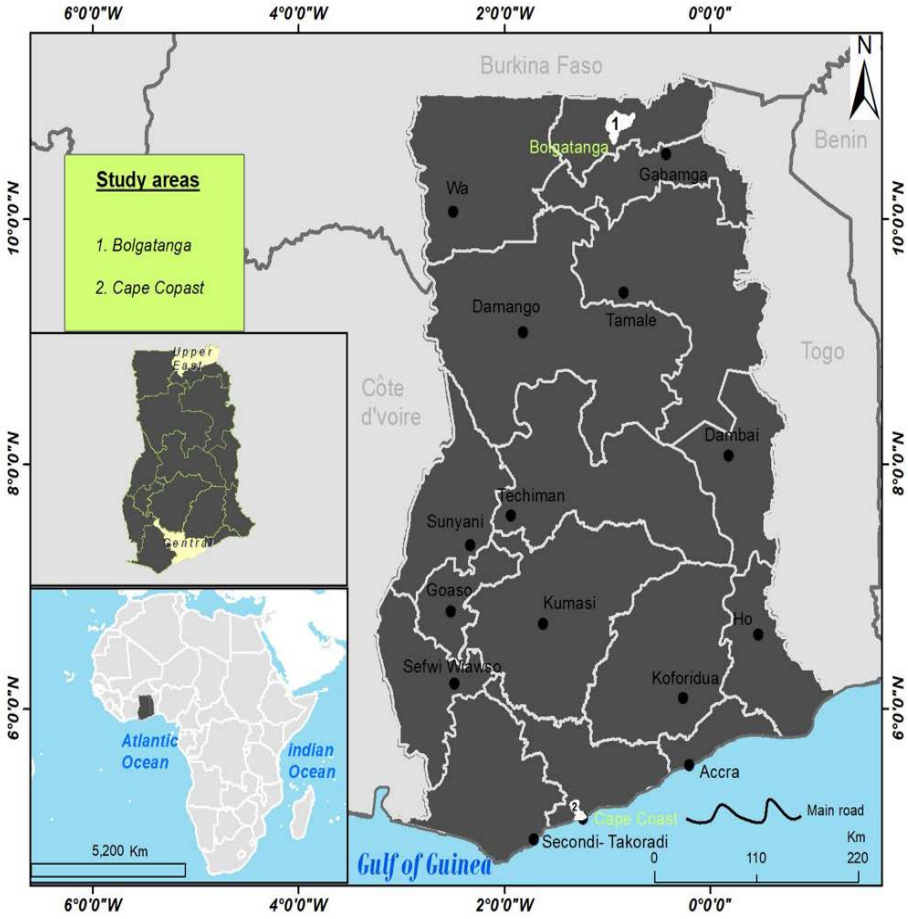

Fig. 3. Map showing the study areas – the Cape Coast Metropolis and Bolgatanga Municipality

Multi-stage sampling was employed, starting with stratified sampling to divide the population into northern (Upper East, Upper West, Northern regions) and southern (Western, Central, Greater Accra, Ashanti, Volta, Eastern, Brong-Ahafo regions) strata. This aimed to reduce sampling error and enhance homogeneity, allowing for flexible sample designs for each subgroup (Randolph & Myers, 2013). The second stage used simple random sampling to select regional capitals, where names of regions were drawn from two bowls labelled for the northern and southern sectors, resulting in the selection of Bolgatanga Municipality and Cape Coast Metropolis. This ensured fair representation (Taherdoost, 2016; Wilson, 2014). The final stage involved random cluster sampling to select large, fragmented households in both locations. Due to the impracticality of listing all households, the researcher clustered Cape Coast into two zones (North and South) and randomly selected towns and communities, then households within those areas. This process was similarly conducted in Bolgatanga Municipality to identify household members for questionnaire administration. This method was less time-consuming and economically efficient (Davies, 2005). The study used the Yamane's (1967) formula for determining the sample size. This is given as:

$$n = \frac{N}{1 + N(e)^2}$$

N = corrected sample size,

N = population size,

e = Margin of Error (MoE), e = 0.05 based on the research condition.

Cape Coast Metropolis	**Bolgatanga Municipal**
140,405/(1+140,405* 0.05^2)= 399	129, 696/(1+129, 696* 0.05^2)= 399

Yamane's (1967) formula for sample size yielded 399 respondents for each of the study areas, the Cape Coast Metropolis and the Bolgatanga Metropolis respectively. However, the study extended the sample size of 399 respondents and ended up with a larger sample size of 700 respondents for the Cape Coast Metropolis and

400 respondents for the Bolgatanga Metropolis for more accurate predictions and generalizations.

The nature of the study was a survey that requires soliciting information from large number of respondents. Thus, questionnaires served as the primary data collection tool due to their significant advantages in terms of objectivity and the ability to reach a large number of respondents within a specific timeframe (Kumar, 2005). The questionnaire was structured into seven sections. The first section addressed the socio-demographic characteristics of the respondents, while the second section focused on the essence of the concept of "social well-being" in modern conditions. The third section covered the factors that determine the social well-being of Ghanaians today. The fourth section analysed the current state of Ghana and the level of its socio-economic development. The fifth section investigated the sociological analysis and satisfaction regarding the well-being of the Ghanaian population in contemporary conditions. The sixth section assessed migration as a tool for addressing social problems faced by the Ghanaian population. The final section developed technologies that can influence and enhance the social well-being of Ghanaians.

The data collection of this study took place from 1st December 2021 to 30th April 2022. The data was collected by six trained field assistants. They comprised of post-graduate students, all from the university of Cape Coast, who are fluent in dialects spoken in the two selected study areas. These filed assistants were given a three-day online training workshop. The online workshop focused on the research objectives, data collection techniques, items and research instruments, practice in the use of the instruments, skill-building exercises on administering questionnaires and discussion of ethical issues. The training took place in the last week of November 2021. Before commencing the data collection exercise, the researcher obtained a letter of introduction from the Head of the Department of Management and Administration at the Russian State Social University. A preliminary data collection exercise was conducted in the Kumasi Metropolis in the Ashanti Region (the middle belt of Ghana). Selected households were contacted, and a letter of introduction was provided to each household member before administering the research instruments.

Each item in the questionnaire was assigned a code for easy identification, and responses were coded accordingly. To determine whether technologies informed social well-being in the Kumasi Metropolis, respondents were given five-point Likert scale questions to answer. The scoring was based on the five-point Likert scale of strongly disagree (SD), disagree (D), neutral (N), agree (A), and strongly agree (SA). The options were weighted as follows: (SD=1), (D=2), (N=3), (A=4), and (SA=5).

The response rate was notably high. A total of 1,200 respondents were selected for the survey, with 750 from Cape Coast Metropolis and 450 from Bolgatanga Metropolis receiving questionnaires to complete and return by an agreed-upon date. Consequently, 1,100 respondents completed the survey, resulting in a response rate of 92%. Therefore, 700 respondents from Cape Coast Metropolis and 400 from Bolgatanga Metropolis were chosen for the survey to enhance the accuracy of predictions and generalizations.

The reliability of the research instrument was measured by the degree to which the questionnaires produced consistent, stable, accurate, and repeatable measurements regarding technologies and social well-being under constant conditions (Moser & Kalton, 1989). Additionally, to ascertain the content validity of the research instrument, the questionnaire was evaluated against the intended research objectives concerning technologies and social well-being, as well as the specific targeted respondents, content, and interpretations based on correct test scores (Burns, 2005).

The challenges encountered in the field was that respondents often were in a hurry to return the questionnaire without completing all the questions due to time constraints. To address this issue, they were permitted to take the questionnaires home, complete them at their convenience, and we followed up to collect them. However, this created additional pressure on both time and finances. Additionally, some respondents expected immediate or long-term material benefits before participating in the survey, primarily because they believed it was a government initiative. This was especially true in the commercial areas of the selected regions. We took

steps to clarify the purposes and objectives of the research to the participants. While this approach yielded positive results in many cases, it was not always effective.

The outcomes of this research will carry significant implications for policies aimed at improving social well-being and poverty alleviation efforts in Ghana. By pinpointing the primary issues related to social well-being, policymakers can formulate targeted interventions and strategies to tackle specific challenges. Recommendations may include enhancing access to personal, relational, and social well-being. Furthermore, this review underscores the necessity for further research into specific dimensions of poverty and well-being in Ghana. Future research initiatives could investigate the effectiveness of social well-being programs, the impact of social protection measures, and the gender and child dimensions of well-being. Additionally, examining regional disparities in poverty and understanding the complexities of the informal sector would contribute to a more nuanced comprehension of well-being dynamics in Ghana. While this study seeks to provide an in-depth analysis of the methods for measuring social well-being in Ghana, it is crucial to acknowledge its limitations. The research relies on existing literature and data sources, which may possess inherent biases and limitations. The findings may also be affected by the availability and quality of data. Moreover, the scope of this review is confined to the approaches for measuring social well-being in only two regional capitals in Ghana, thus not addressing the broader context of social well-being across the remaining eight regions.

CONCLUSION

Social well-being is a multidimensional approach to reducing poverty and improving standards of living and can be explained from the perspectives of personal, relational, and societal well-being. One great concern about social well-being is its ability to be measured in terms of the modern conditions of individual household members. Efforts to measure social well-being should encompass a careful consideration of developing technologies that will ensure and enhance the social well-being of individual households.

The study therefore examined technologies for ensuring the social well-being of the population of Ghana in modern conditions. The study was organized into two chapters and guided by six specific objectives: ascertaining the interpretations and approaches to measuring well-being in Ghana, identifying the international measuring standards and factors used to assess well-being in Ghana, conducting a sociological analysis of well-being processes in Ghana, assessing the migration analysis of social well-being in Ghana, and evaluating the technological analysis of social well-being in Ghana. A total of 1100 Ghanaian household members were sampled using multi-stage sampling technique. The data was collected using a well-structure questionnaire in a survey. The data collected was analysed using the Statistical Product for the Service Solutions (SPSS) version 21. The analysis involved the use of statistical techniques such as descriptive statistics that includes frequency distributions, percentages and cross-tabulations, chi squares and inferential statistics such as correlation and regression were used to describe and summarize the data. The conclusions of the study were:

Chapter One comprised two primary research goals. The first goal focused on interpreting well-being and the methods for its measurement, concluding that members of Ghanaian households consider the achievement of personal well-being essential for social well-being. Elderly Ghanaians (aged over 62 years) identified personal well-being as the most critical aspect of their social well-being. Overall, age distribution had a small yet significant effect on the attainment of personal well-

being, suggesting that different age groups may experience varying levels of personal well-being, although these differences are not substantial enough to be deemed highly impactful. Thus, most Ghanaians, regardless of age, recognize the attainment of personal well-being as a significant achievement. Additionally, Ghanaian household members emphasized the importance of social actualization for effective well-being in contemporary society, with males assigning greater importance to social actualization than females, albeit with minor differences in effect size.

The second research goal evaluated the international standards and factors used to assess well-being in Ghana. In the light of current social conditions, the study concludes that Ghanaians prioritize and encourage high school enrolment rates. Furthermore, while some households face high rates of illness, they manage to spend modestly on health due to coverage provided by National Health Insurance. Many households also struggle to afford adequate housing, and reliable access to electricity remains a challenge. Notably, age correlates more strongly with health outcomes than with education or housing needs.

Regarding the economic situation in Ghana, the study reveals several key findings: first, existing economic conditions indicate a lack of sufficient employment opportunities, leading to underemployment and dissatisfaction among the youth. Second, Ghanaians are increasingly mindful of their spending habits, prioritizing daily consumption over expenses related to housing, health, and the environment. Third, limited access to collateral assets hampers many Ghanaians from obtaining financial insurance. Fourth, personal monthly income is more closely associated with work-related activities than with household expenditures or financial services, showing no direct correlation with spending patterns.

Insights from the agricultural sector indicate that many farmers lack essential inputs for crop, animal, and fish farming, with most products consumed domestically rather than processed for sale. Additionally, household income has a moderate influence on agricultural consumption, but ownership of inputs and processing activities does not directly correlate with income levels. In the realm of non-farm enterprises, financial constraints limit many households from engaging in manufacturing

or service sectors, thereby reducing the benefits derived from these activities. Moreover, there is no correlation between ownership, capital sources, profits, and expenditures of non-farm enterprises and household monthly earnings.

With respect to governance, peace, and security in Ghana, the study indicates that households generally experience relative peace and security, with adequate protection against sexual offenses, violence, and crime. Residents of the Cape Coast Metropolis express higher satisfaction with government performance compared to those in Bolgatanga Municipality.

Chapter Two identified three key research goals. The first goal focused on the sociological analysis of well-being processes in Ghana. The findings suggest that the absence of stigma associated with obtaining education, seeking healthcare, and participating in various sectors of the economy significantly enhances the sociological understanding of personal well-being. Notably, in terms of healthcare access, the lack of stigma related to gender, race, or ethnic background emerged as the most influential factor affecting personal well-being. Additionally, relational well-being is fostered by positive interactions with family and friends, as well as by individuals feeling comfortable with their body image. The analysis concluded that comfort with one's body shape is the most significant contributor to the relational well-being of Ghanaian households. In examining the factors that contribute to societal well-being, the study identified several critical elements: contributions to daily product consumption, the importance placed on community members, a community that empowers individuals to make decisions and engage in activities, social interactions, and a community that offers robust protection against hazards and risks. Among these factors, the community's provision of opportunities for individuals to make decisions and participate in activities emerged as the most impactful contributor to societal well-being.

The second research goal centered on the analysis of migration in relation to social well-being. The findings indicate that Ghanaian household members are increasingly engaging in internal migration within the country. The study assesses migration as a tool for addressing social issues and reveals that it influences personal

well-being by enhancing educational opportunities. Additionally, migration fosters relational well-being by strengthening positive relationships with family and friends and significantly impacts societal well-being by promoting social fulfilment. The evidence suggests that internal migration within Ghana enhances personal and relational well-being, although it does not significantly affect societal well-being. Conversely, the migration of Ghanaians outside the country substantially contributes to the enhancement of personal, relational, and societal well-being. Internal-external migrations also play a crucial role in improving all three dimensions of well-being. Overall, Ghanaian household members perceive migration as a strategic approach to enhancing well-being, with the most significant impact on personal well-being, followed by societal well-being and relational well-being.

The final research goal under chapter two draw conclusions on the analysis of technologies in relation to social well-being in Ghana. This study identifies several technologies available to Ghanaian household members, including the internet, mobile devices, computers or laptops, the Internet of Things, Big Data Analytics, Artificial Intelligence, and Blockchain. Among these, mobile phones are the most widely utilized technology, while blockchain is the least commonly used. Furthermore, rather than accessing these technologies in public settings, many Ghanaian household members tend to use them individually or privately.

This analysis highlights the technologies that can influence and enhance the social well-being of Ghanaians, revealing a clear relationship between these technologies and personal well-being. The use of the internet, mobile devices, computers/desktops/laptops, and blockchain significantly affects education, with computers identified as the strongest predictor of educational success in Ghana. Health outcomes are similarly influenced by the internet, mobile devices, computers/laptops, the Internet of Things, and blockchain, with the Internet of Things recognized as the top predictor of health in the country. Work-life activities are primarily driven by the use of mobile devices, computers, and blockchain, with computers again emerging as the most significant predictor of work-life activities in Ghana. Overall, the findings indicate that the utilization of computers is expected to result in substantial

improvements across all dimensions of personal well-being: education, health, and work-life balance.

The examination of the relationship between technologies and relational well-being reveals that body appearance and acceptance are significantly influenced by the use of computers and laptops, the Internet of things, Big Data analytics, and blockchain, with computers being the strongest predictor of body appearance and acceptance. Furthermore, relationships with family and friends are significantly impacted by technologies such as Big Data analytics, Artificial Intelligence, and blockchain, with computers again identified as the highest predictor of these relationships in Ghana. Overall, the findings indicate that the use of computers and Big Data analytics is linked to substantial improvements in body appearance and acceptance, as well as in relationships with family and friends. The analysis of the relationship between technologies and societal well-being indicates that social contribution is significantly influenced by the predicted use of the internet, mobile devices, computers/laptops, and Big Data analytics, with computers identified as the strongest predictor of social contribution. Social inclusion is primarily shaped by the use of the internet, computers/laptops, the Internet of things, and Artificial Intelligence, where again, computers emerge as the strongest predictor of social inclusion.

Additionally, social actualization is largely influenced by the use of computers and laptops, the Internet of things, Big Data analytics, Artificial Intelligence, and blockchain, with computers serving as the most significant predictor of social actualization. Furthermore, the use of computers and laptops, along with Artificial Intelligence and blockchain, has a substantial impact on social acceptance, with computers being the strongest predictor in this area. Moreover, social coherence is primarily influenced by the use of computers and laptops, as well as Artificial Intelligence, where computers again stand out as the strongest predictor. Finally, institutional trust is significantly affected by the use of the Internet, mobile devices, computers/laptops, Internet of things, and Artificial Intelligence, with computers recognized as the strongest predictor of institutional trust.

Thus, technology has a minor influence on Ghanaian household members' social well-being. Linking various theoretical assumptions from the Technology Acceptance Model and Technological Determinism to this study leads to the conclusion that technologies can be used to solve specific problems in Ghanaian society by improving personal, relational, and societal components of social well-being.

Based on these conclusions, the following recommendations are made:

1. The Government of Ghana (GoG), through the Ghana Statistical Service, should adopt a multidimensional approach to measuring the well-being of Ghanaians that incorporates the relational and societal components of well-being to augment the personal (economic, income, monetary) measurement of well-being. This will close the gap left by traditional unidimensional measures of standard of living that are solely based on monetary variables. Such intervention will provide a holistic approach and prioritise for instance, the importance of attaching social actualization to personal well-being indicators in measuring the poverty, living standards and well-being levels of Ghanaians in modern conditions.
2. The study urges the GoG to continue to improve the delivery of high-quality public services in the areas of education, health, finance, employment, agriculture, and non-farm enterprises. This is because the level of satisfaction Ghanaians have with public services will have a significant impact on their trust in the governance approaches that will help the government overcome the challenges posed by citizens' mistrust in governance. It is also necessary for the Government of Ghana to use social media platforms to consistently advocate on issues of governance, laws, policy reforms and most importantly, Ghanaians' general well-being to further enhance citizens' contentment with public services and their trust in government.
3. The Government of Ghana should also devise a long-term plan that involves gathering accurate demographic data on potential migrants and providing them with essential resources such as education, skills, and training to enhance their competitiveness and meet market demands in destination locations. This approach will make potential migrants highly employable, enabling them to work,

earn income, and send remittances to their families back home, thus improving their overall well-being.

4. The Government of Ghana (GoG) should focus on increasing access and connectivity to technologies for Ghanaians. This can be achieved by introducing high-speed broadband networks in all metropolitan, municipal, and district capitals through institutions like the National Communication Authority and Accra Digital Centre. Educating Ghanaian households on the importance of developing digital skills across various technologies, led by the National Commission for Civic Education (NCCE), would further enhance this effort.
5. The Government of Ghana (GoG) should create a favourable environment for multinational digital companies to operate in Ghana is essential. By providing a conducive social, political, and economic setting, these companies can invest, grow, and offer services at a lower cost, benefiting the social well-being of Ghanaians.

This study examines the approaches to assessing and ensuring the social well-being of Ghanaians in contemporary conditions. It presents several notable strengths that contribute to its significance and relevance within the field of social science research, enhancing the robustness of valuable insights into the complexities of social well-being in the Ghanaian context. One of the primary strengths of the study is its multidimensional approach to evaluating social well-being. By incorporating personal, relational, and societal dimensions, the research allows for a nuanced understanding of how various factors interact to influence overall well-being. This comprehensive framework moves beyond simplistic measures that focus solely on economic indicators, offering a richer perspective on what constitutes well-being in the lives of individuals and communities. Furthermore, the study draws on existing literature, incorporating and adapting the social dimensions of well-being as proposed by notable scholars such as Keyes and Lopez (2002) and Koo et al. (2016). This foundation in established theories enhances the research's credibility and situates it within a wider academic discourse, reinforcing the relevance of its findings on

societal well-being components such as social contribution, social inclusion and integration, social actualization, social acceptance, social cohesion and institutional trust.

Additionally, the research contributes to the understanding of migration as a factor influencing social well-being. By exploring both internal and external migration trends, the study provides a broader perspective on how individuals navigate social challenges and opportunities. This focus on migration highlights the interplay between mobility and well-being, enriching the discourse on demographic trends in Ghana. Another significant strength of the study is its focus on the impact of technology on social well-being, which is particularly relevant in today's digital age. By examining how various technologies influence personal, relational, and societal well-being, the research addresses a critical area of inquiry often overlooked in traditional well-being studies. This emphasis on technology highlights the evolving nature of social interactions and the potential for technological advancements to enhance well-being. Also, the robust quantitative methodological framework employed in the research further strengthens its reliability. Utilizing a multi-stage sampling technique, the study collected data from a substantial sample of 1,100 Ghanaian household members. This methodological rigor enhances the representativeness of the findings, allowing for more generalizable conclusions about social well-being in the selected regions. Such a large sample size also contributes to the statistical power of the analyses conducted, capturing the complexities of social well-being.

While the findings of the study offer valuable insights for policymakers and practitioners in Ghana, enhancing its relevance to policy and practice by identifying key areas for improvement such as education funding, public service delivery, and access to technology the research provides actionable recommendations that can inform policy decisions aimed at enhancing social well-being. This practical applicability underscores the study's contribution to improving the lives of individuals and communities in Ghana. However, there are some limitations. One significant limitation is the geographical scope of the study, which focused on only two regions out of ten in Ghana. While this approach allowed for a detailed examination of social

well-being within these specific areas, it may not provide a comprehensive representation of the entire regional populations in Ghana. Consequently, the findings may not be generalizable to the broader Ghanaian context, limiting the applicability of the results to other regions. An additional limitation of the study pertains to the reliance on a structured questionnaire. While this facilitates quantitative analysis, it restricts the depth of responses and overlooks nuanced perspectives on social well-being. Moreover, the cross-sectional nature of the study is a concern. The findings are based on data collected at a specific point in time, which may not account for changes in social, economic, or political conditions over time.

Another inherent limitation is the contested and subjective nature of the concept of well-being. The operationalization of social well-being through specific dimensions may overlook other critical factors that influence well-being, such as mental health, cultural identity, and community resilience, which may not have been adequately addressed. This could potentially lead to an incomplete understanding of the social well-being landscape. Furthermore, the study places a strong emphasis on the role of migration and technology in enhancing social well-being but does not expand the findings to consider the complex nature of migration or the digital divide that exists within Ghana. Not all households have the resources to migrate or equal access to technology, which could skew the results and limit the applicability of the findings to households that don't migrate or to less technologically connected populations in Ghana.

One outstanding area that future studies should address is the inclusion of a more extensive range of regions across Ghana to enhance the generalizability of findings. Incorporating diverse geographical areas will provide a more comprehensive understanding of social well-being across different contexts. Additionally, to capture the depth of responses and nuanced perspectives, future research could employ a mixed-methods approach. Combining quantitative surveys with qualitative interviews or focus groups would allow for a richer exploration of social well-being and its influencing factors. Furthermore, conducting longitudinal research would help track changes in social, economic, and political conditions over time. This

approach would provide insights into how these factors impact social well-being and allow for a better understanding of trends and patterns. Moreover, future research should consider a broader operationalization of well-being, including factors such as mental health, cultural identity, and community resilience. This would help create a more holistic view of what constitutes social well-being.

Future studies should also delve deeper into the complexities of migration, examining the motivations behind migration and its effects on social well-being, as well as the experiences of migrants compared to non-migrants. Additionally, research should investigate the impact of the digital divide on social well-being. Understanding how access to technology varies among different populations can help identify barriers and inform policies aimed at promoting equitable access to technological resources.

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APPENDIX A

MODEL TECHNIQUES FOR REGRESSION ANALYSIS

The study used the ordered logistic regression model to investigates the roles of migration in solving the social problems of Ghana. There are large number of parametric ordinal models that can be expressed as a latent variable model (Long & Freese, 2006; Greene, 2003; Van Der Ark, 2001). In estimating the basic equation for ordinal logistic regression, the study considered

Y_i be the ordinal outcome variable for observation i, where $i = 1, 2, ..., n$ and n is the total number of observations. Y_i takes on values from 1 to J, representing the J ordinal categories. Let X_{ij} be the predictor variables for observation i, where $j = 1, 2, ..., p$ and p is the number of predictor variables.

The cumulative log odds of being at or below category j relative to the reference category (usually the last category) is modelled as:

$$\text{Logit}\,(P(Yi \leq j)) = \alpha j + \beta 1 Xi1 + \beta 2 Xi2 + ... + \beta p Xip$$

- $P(Yi \leq j)$ is the cumulative probability that the outcome variable Yi is at or below the category
- $\text{logit}(p) = \ln\left(\frac{p}{1-p}\right)$ is the natural logarithm of the odds. - αj represents the intercept for category j.
- β1,β2,...,βp are the coefficients associated with the predictor variables.
- Xi1,Xi2,...,Xip are the values of the predictor variables for observation i.

The parameters αj and βk are estimated using maximum likelihood estimation methods. The study considered a response variable Y (Personal, Relational, Social well-being) which was measured at the ordinal levels as; Strongly Disagree, Neutral and Strongly Agree categories and an explanatory variable (internal, external and internal-external migration) $\chi = (x_1, x_2, \ldots, x_5)$ the vector of explanatory variables (co-variables) which was measured on a nominal level and the occurrence of migration was coded as "Yes" =1 and its absence coded as "No" = 0.

The goodness of fit test was carried out to ascertain if the model was appropriate and determine whether the predicted probabilities deviate from the observed in a way that the ordered logistic model cannot predict. This test was done using the chi-square test. The chi-square test is based on the difference between the observed and the expected values for each category. The chi square statistic is defined as;

$$x^2 = \sum \left(\frac{Oi - Ei}{Ei}\right)^2 \quad (2)$$

O_i is the observed value of cases in category i, and Ei is the expected value of cases in category i.

Thus, the results in Table 23 shows all variables are significant except for the relationships between internal migration and societal well-being. Using Table 24 as an example, the logit model for the types of migration and personal well-being is given as;

Personal well-being Logit (y_1) = .266 - [.335β_1 + 1.226β_2+ 1.399β_3] (3)
Personal well-being Logit (y_2) = .778 - [.335β_1 + 1.226β_2+ 1.399β_3] (4)

Where β_1 is the parameter estimates for internal migration, β_2 is the parameter estimates for external migration and β_3 is the parameter estimates for internal-external migrations on personal well-being.

Relational well-being= (y_1) = -.823 - [.413β_1 + .569β_2+ 1.418β_3] (5)
Relational well-being= (y_2) = -.320 - [.413β_1 + .569β_2+ 1.418β_3] (6)

Where β_1 is the parameter estimates for internal migration, β_2 is the parameter estimates for external migration and β_3 is the parameter estimates for internal-external migrations on relational well-being.

Societal well-being= (y_1) = -.192 - [.105β_1 + .1.610β_2+ .819β_3] (7)
Societal well-being= (y_2) = .260 - [.105β_1 + .1.610β_2+ .819β_3] (8)

Where β_1 is the parameter estimates for internal migration, β_2 is the parameter estimates for external migration and β_3 is the parameter estimates for internal-external migrations on societal well-being.

The study adopted the multiple linear regression technique to examine the relationships between technologies and the components of social well-being. Multiple linear regression models the relationship between dependent and two or more independent variables in a hyperplane and seeks to know if the direction of each of the independent variable is positively or negatively predicting the value of the dependent variable (Killada, 2017). Given the general simple regression equation as:

$$Y = \beta_0 + \beta_1 X_{i1} + e \quad (1)$$

The expansion of this equation (1) with two or more independent variables provides the general model specification for multiple linear regression as;

$$Y = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} ..... \beta_p X_{ip} + e \quad (2)$$

Where Y is the output or target vector, β1, β2 ..... βn are regression coefficients and Xi1, Xi2..... Xin are independent variables or input variables. For any regression coefficients, the main features are sign, size, and significance. A positive or negative coefficient sign for an independent variable shows the direction of its association with the dependent variable. The size indicates the magnitude of the observed effect between the independent variable and the dependent variable. The significance explains the circumstances in which the observed result provides enough evidence to reject the null hypothesis for the entire.

In multiple linear regression, the model is fit using ordinary least squares or linear least squares which estimate the unknown variables, minimizing the sum of the squares of the differences between actual values and predicted values for the given data set. The error of model is defined and measured using cost function or loss function. The differences between actual and predicted values for test set are called prediction errors or test errors. The errors are calculated using the following formula:

$$E = \sum^{n}_{i=1}(yi - f(xi))^2 \quad (3)$$

Where y_i is the actual value and $f(x_i)$ is the predicted value based on the multiple linear regression function. The model tested model can be evaluated using regression metrics such as R^2 score.

The predictor variables for this study which included technologies such as; Internet-(Int), Mobile Device-(Mob), Computer/Laptop-(Com), Internet of things-(Iot), Big data-Bd, Artificial Intelligence-Ai, Block Chain-Bc were dummy coded as "Yes=1" for the use technology and "No=0" for no use of technology and assessed in terms of what it adds to the prediction of the dependent variable (personal or relational or societal well-being that was separately coded in a continuous scores coded). Due to differences that exist in the use of technologies for personal or relational or societal well-being, separate models were estimated to cater for this heterogeneity. Thus, the model specification for the study was:

$$y = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} \ldots\ldots\ldots \beta_p X_{ip} + e \quad (4)$$

where, for $i=n$ observations:

Y_i= Outcome variable (Social well-being)

X_i=Predictor variables-(Technologies)

$\beta 0$=Y-intercept (constant term)

βp=slope coefficients for each predictor variable

e=the model's error term (also known as the residuals).

The model specification for Education, Health and Work-life activities as dimensions of personal well-being were given as;

Model 1: Education (Edu)

$$Edu = \beta_0 + \beta_1 Int + \beta_2 Mob + \beta_3 Com + \beta_4 Iot + \beta_5 Bd + \beta_6 Ai + \beta_7 Bc + e \quad (5)$$

Model 2: Health (Hlth)

$$Hlt = \beta_0 + \beta_1 Int + \beta_2 Mob + \beta_3 Com + \beta_4 Iot + \beta_5 Bd + \beta_6 Ai + \beta_7 Bc + e \quad (6)$$

Model 3: Work-Life Activities (WkL)

$$WkL = \beta_0 + \beta_1 Int + \beta_2 Mob + \beta_3 Com + \beta_4 Iot + \beta_5 Bd + \beta_6 Ai + \beta_7 Bc + e \quad (7)$$

The model specification for Body, Appearance and Acceptance and Relations with Families and Friends as dimensions of relational well-being were given as;

Model 4: Body, Appearance and Acceptance (BAA)

$$BAA = \beta_0 + \beta_1 Int + \beta_2 Mob + \beta_3 Com + \beta_4 Iot + \beta_5 Bd + \beta_6 Ai + \beta_7 Bc + e \quad (8)$$

Model 5: Relations with Families and Friends (RFF)

$$RFF = \beta_0 + \beta_1 Int + \beta_2 Mob + \beta_3 Com + \beta_4 Iot + \beta_5 Bd + \beta_6 Ai + \beta_7 Bc + e \quad (9)$$

The model specification for Social Contribution, Social Inclusion and Integration, Social Actualization, Social Acceptance, Social Coherence and Institutional Trust as dimensions of societal well-being were given as;

Model 6: Social Contribution (SCon)

$$SCon = \beta_0 + \beta_1 Int + \beta_2 Mob + \beta_3 Com + \beta_4 Iot + \beta_5 Bd + \beta_6 Ai + \beta_7 Bc + e \quad (10)$$

Model 7: Social Inclusion and Integration

SII= β_0 + β_1 Int + β_2 Mob + β_3Com+ β_4Iot+ β_5Bd+ β_6Ai + β_7Bc+ e (11)

Model 8: Social Actualization (SAct)

SAct= β_0 + β_1 Int + β_2 Mob + β_3Com+ β_4Iot+ β_5Bd+ β_6Ai + β_7Bc+ e (12)

Model 9: Social Acceptance (SAcc)

SAcc= β_0 + β_1 Int + β_2 Mob + β_3Com+ β_4Iot+ β_5Bd+ β_6Ai + β_7Bc+ e (13)

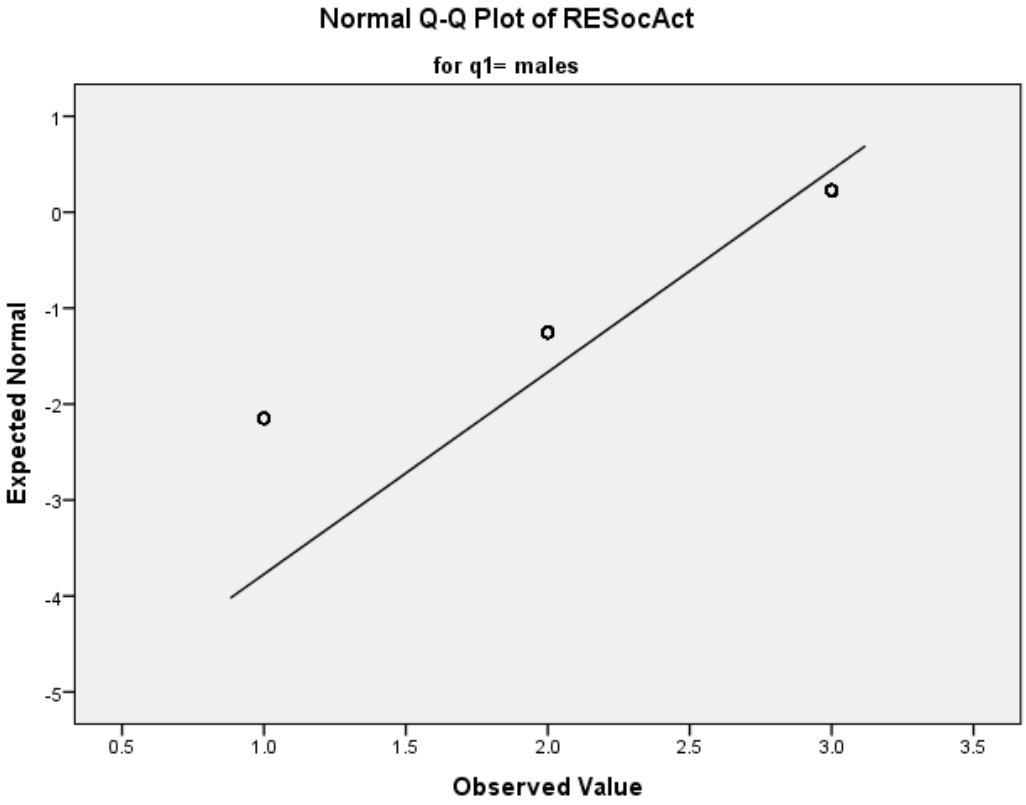
Model 10: Social Coherence (SCoh)

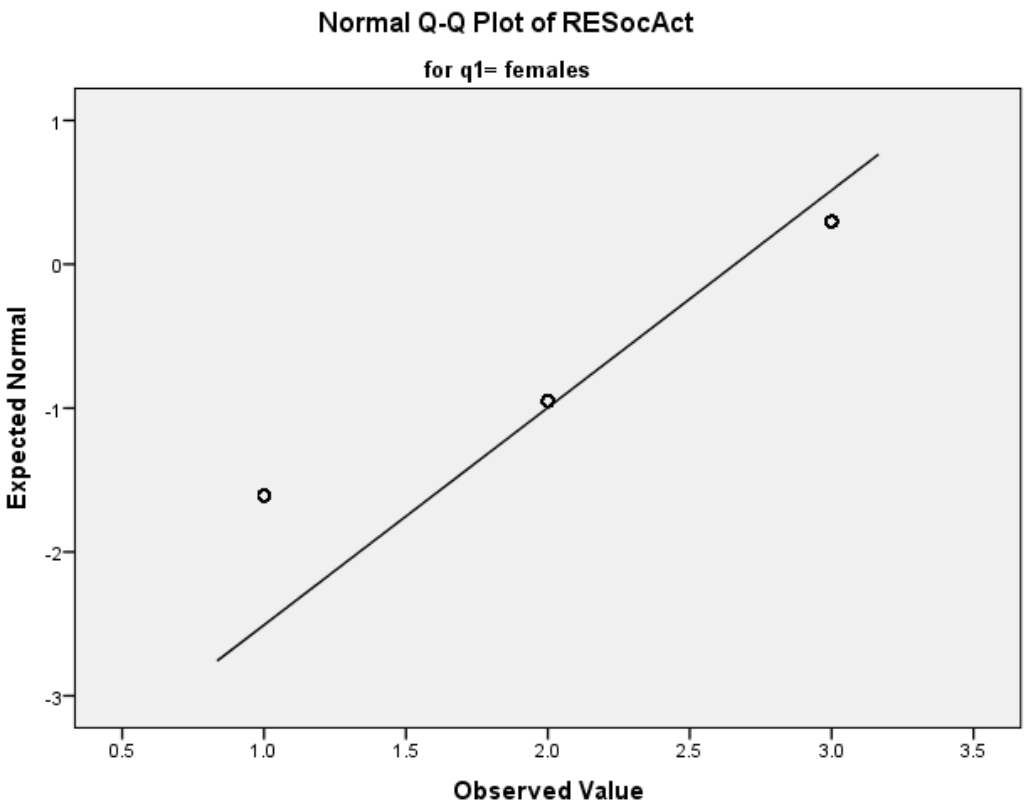
SCoh= β_0 + β_1 Int + β_2 Mob + β_3Com+ β_4Iot+ β_5Bd+ β_6Ai + β_7Bc+ e (14)

Model 11: Institutional Trust (InT)

InT= β_0 + β_1 Int + β_2 Mob + β_3Com+ β_4Iot+ β_5Bd+ β_6Ai + β_7Bc+ e (15)

The study submitted copies of the research instruments to the Institutional Review Board of the Russian State Social University before the field survey. The submitted copies of the research instruments highlighted the proposed research design, methodology, written consent forms as well as explanatory literature in the procedures for ensuring confidentiality, voluntary participation, and anonymity. In addition, information on the objectives of the study and a debriefing session for respondents immediately following administration of questionnaires were adhered to. This research was approved by the Institutional Review Board of the Russian State Social University which ensured that the research design and field work procedures do not violate ethical considerations.




Normal Q-Q Plot of RESocAct
for q1= females
Expected Normal
1
0
-1
-2
-3
0.5
1.0
1.5
2.0
2.5
3.0
3.5
Observed Value

APPENDIX B

QUESTIONNAIRE

PURPOSE: This thesis aims to examine the relationship between technology and the social well-being of Ghanaians in modern conditions. The study is designed to determine if the use of technology impacts a person's social well-being, with a specific focus on the Ghanaian population.

PROCEDURE: If you agree to participate in this study, you will be asked to complete a survey that will take approximately 20-30 minutes of your time. The survey consists of a set of closed-ended questions on basic socio-demographic information, digital technologies, and social well-being.

RISKS: Some respondents may feel uncomfortable discussing the use of technologies and social well-being, although this survey is no different from everyday conversation. Respondents are encouraged to stop the survey if they experience excessive discomfort and may contact the researcher/administrator of this questionnaire for assistance.

BENEFITS: There are no direct benefits for respondents participating in this study. However, the findings may lead to the development of services that better address issues related to technology use and social well-being.

CONFIDENTIALITY: Confidentiality will be maintained to the best extent possible. Survey data will be securely stored in a locked location accessible only to the researcher. All research data will be destroyed after the completion of the project. No individually identifying data will be collected or included in any papers or publications resulting from this study. Only the researcher and the thesis advisor will have access to the data.

VOLUNTARY PARTICIPATION: Participation is voluntary, and you may withdraw from the study at any time without explanation. Returning the survey implies consent.

QUESTIONS: If you have any questions or comments regarding this study, please feel free to contact Standhope Anamoa-Pokoo at standhopemail@gmail.com. Please return the survey to the researcher upon completion.

THANK YOU!

Questionnaire Number……...……...
Region…….
Locality……
Name of Field Researcher……....

SOCIO-DEMOGRAPHIC CHARACTERISTICS			
NO.	**STATEMENTS**	**OPTIONAL RESPONSES (√)**	
QN1	Gender	1.	Male
		2.	Female
QN2	Age	In completed years…….	
QN3	Marital status	1.	Single
		2.	Married
		3.	Separated/Divorced
		4.	Widowed
		5.	Cohabiting
		6.	Others (Specify) ……
QN4	Religious affiliation	1.	No religion
		2.	Catholic
		3.	Protestant
		4.	Pentecostal/Charismatic
		5.	Islam
		6.	Traditionalist
		7.	Others (Specify)……
QN5	Ethnic Group	1.	Akan
		2.	Ga-Dangme
		3.	Ewe
		4.	Guan
		5	Mole-Dagbani
		6	Others (specify)…….
QN6	Forms of Disability	1.	No disability
		2.	Physical
		3.	Visual
		4.	Hearing
		5.	Others (Specify)……
QN7	Educational status	1.	No formal education
		2.	Primary education
		3.	Middle/JHS
		4.	SHS/Vocational/Technical
		5.	Post-secondary/Tertiary
		6.	Others (Specify) ……

QN8	Employment status	1. 2. 3. 4. 5. 6. 7.	Wage employment Self-employed with employees Self-employed without employees Contributing family worker Causal worker Unpaid apprentice Domestic worker Others (Specify)……
QN9	Household size		……
QN10	Personal monthly income	1. 2. 3. 4. 5. 6. 7.	Below GH₵100 GH₵100- GH₵1000 GH₵1100- GH₵2000 GH₵2100- GH₵3000 GH₵3100- GH₵3000 GH₵4100- GH₵5000 Above GH₵5000
QN11	Household monthly income	1. 2. 3. 4. 5. 6. 7.	Below GH₵100 GH₵100- GH₵1000 GH₵1100- GH₵2000 GH₵2100- GH₵3000 GH₵3100- GH₵3000 GH₵4100- GH₵5000 Above GH₵5000

TASK 1: THE ESSENCE OF THE CONCEPTS "SOCIAL WELL-BEING"

For each of the following items respondents should select one of the following
1. Strongly Disagree 4. Agree
2.Disagree 5. Strongly Agree
3. Neutral

QN12	*In your view, the concept of measuring social well-being is essential because;*
A	**Social Contribution:** (the evaluation of one's value to society/the feeling that what one does is valued by society and contributes to the greater good)……..
B	**Social Inclusion and Integration:** (the evaluation of the quality of one's relationship to society and community) …….
C	**Social Actualization:** the evaluation of the positive view of society's potentials/progress to citizens) ……
D	**Social Acceptance:** (the construal of society through the character and qualities of other people's trust, kindness)……..
Q	**Social Coherence:** (the perception of the quality and operation of the social world/ meaningfulness in life/appraisals that society is discernible, sensible, and predictable)

F	**Institutional Trust:** (the evaluation of trust for local governance, civil organisations, staffs, friends and families) ……..
TASK 2: TO IDENTIFY THE FACTORS THAT DETERMINE THE SOCIAL WELL-BEING OF GHANAIANS	
QN13	*Determining social wellbeing is based on factors such as:*
	For each of the following items: Respondents should select one of the following: *1. Strongly Disagree 4. Agree* *2. Disagree 5. Strongly Agree* *3. Neutral*
A	**Personal (e.g.;** Satisfaction of current lifestyle and behaviour; Genes and biology)……
B	**Relational (e.g.;** Contact frequency; Subjective quality of relation) …….
C	**Societal Level (e.g.;** Social contribution; Social Inclusion and Integration; Social Actualization (Positive View on Society's Progress); Social Acceptance; Social Cohesion; Institutional Trust) …….
TASK 3: TO ANALYSE THE CURRENT STATE OF GHANA AND THE LEVEL OF ITS SOCIO-ECONOMIC DEVELOPMENT	
QN14	*What is the current socio-economic and development state of Ghana?*
	For each of the following items: Respondents should select one of the following; *1. Strongly Disagree 4. Agree* *2. Disagree 5. Strongly Agree* *3. Neutral*
A	**Education**
i	I /family members like *attending* to *school* ……
ii	I/ family members get all their *needed educational material*
iii	I /family members spend *higher household expenditure on education*……
iv	I/family members can *read and write* ……
v	I/family members see the *important* of being *educated*…….
vi	I/family members' education level *guarantees* me/them the *better job* and *livelihood*…….
B	**Health**
i	I /Family members have *high incidence of ill-health*……...
ii	I/Family members pay *frequents number of visits to health facilities*…….
iii	I/Family members have *quality health facilities* available in community……
iv	I/Family members spend higher household expenditure on health……
v	I'm entitled to or a *card bearer of health insurance*……
C	**Economic activity**
i	I have the *chance* to *choose* from *various forms of work*……
ii	I'm okay with my *current work status*…….
iii	My *hours of work* are *equivalent* to the *income* from work…….

iv	I /Family members/Youth have *gainful work*…….
v	I know some children of this family who are into *child labour*…….
D	**Housing**
i	I live in a *decent dwelling unit* with my family members …….
ii	I have adequate money for the *payment of utilities*……
iii	I'm satisfied with the *portable drinking water* in my house……
iv	I'm satisfied with the *constant supply of electricity* …….
v	I have *decent toilet facilities* in my house……...
vi	I have *designated place* in my house to dispose *generated solid and liquid waste.*……
E	**Household farming**
a	**Ownership of agricultural activities and asset**
i	I own *crop farming inputs* (e.g., organic fertilizer composite Insecticides/Pesticides/Herbicides/Weedicides) …….
ii	I own *animal rearing inputs* (e.g., feed and veterinary services) ……
iii	I own *fish farming inputs* (e.g., canoes, premix fuel, lubricant) …….
b	**Home processing of agricultural produce……**
i	I *processed crop produce* into finished products……
ii	I *processed fish produce* into finished products……
iii	I *processed meat produce* into finished products……
c	**Family/home consumption of agricultural produce**
i	I do *family/home consumption of farm* produce……
ii	I do *family/home consumption of* animal produce…….
iii	I do *family/home consumption of* fish produce…….
F	**Non- farm enterprises**
i	I have *types of non-farm enterprises* in the *manufacturing industry* …
ii	I have *types of non-farm enterprises* in the *service industry* …..
iii	I have access to *sources of capital* for non-farm enterprises in the *manufacturing industry*…….
iii	I have access to *sources of capital* for non-farm enterprises in the *service industry*……
iv	I earn *significant revenue* from non- farm enterprises in the *manufacturing industry*
vi	I earn *significant revenue* from non- farm enterprises in the *service industry...*
vii	I incur *high expenditures* on non-farm enterprises in the *manufacturing industry*
viii	I incur *high expenditures* on non-farm enterprises in the *service industry* …
G	**Household expenditures**
i	I *know* the *components* of my household expenditures…….
ii	I *expend* on my *daily consumption*……
iii	I *expend* on my *shelter and accommodation*……
iv	I *expend* on my *health*……
v	I *expend* on my *environment*…….

vi	I *expend* beyond the *family*……
H	**Financial and insurance services, credit and asset**
i	I have an *access to financial and insurance services*……
ii	I have an *access to credit from banks*…….
iii	I have an *access to credit from family and friends*…….
iv	I have an *access to credit from government*…….
v	I own *collateral assets that can help me secure credit from banks*……
I	**Governance, peace and security**
i	I am protected *against high sexual offences*…….
ii	I am protected *against violence and crime*…….
iii	I have *adequate public safety*…….
iv	I have *adequate peace and social cohesion*…….
v	I'm satisfied with the style and approaches of governance……
TASK 4: WELL-BEING OF THE POPULATION OF GHANA AND THEIR SATISFACTION WITH CONTEMPORARY CONDITIONS	
QN15	*Sociological analysis of well-being/component of social well-being in Ghana*
A	**PERSONAL SOCIAL WELL-BEING (Personal well-being)**
For each of the following items respondents should select one of the following: *1. Strongly Disagree. 4. Agree* *2. Disagree 5. Strongly Agree 3. Neutral*	
a	**Education:**
i	I am *satisfied* with the *kinds of education* I receive .....
ii	I receive education in a *conducive educational environment*…….
iii	I can afford the *cost* involved in being *educated* …….
iv	I am *not stigmatised and marginalised* when receiving education …….
v	I get the *utmost care, love, patient and respect* from educational professionals whenever I'm in school …….
vi	I do not travel for *long distance* when I want to go to school…….
b	**Health:**
i	I am *satisfied* with the *kinds of healthcare* I receive .....
ii	I receive medical care in a *conducive healthy environment*…….
iii	I can afford the *cost* involved in *seeking medical treatment*…….
iv	I am *not stigmatised and marginalised* when receiving medical care……
v	I get the *utmost care, love, patient and respect* from health professionals whenever I visit the health facility…….
vi	I do not travel for *long distance* when I want to seek medical care…….
c	**Work and life balance:**
i	I have the *capacity* to work in any *sector of the economy*…….
ii	I'm satisfied with the *supports I get at my workplace*……

iii	I' m satisfied with my work because my *monthly income matches with my work out-put*…….
iv	My monthly *income is enough* to cover all my family *basic and sustenance needs*…….
v	My *work schedules* and activities offer me *enough time and resources* to meet family needs/demands……
vi	I feel my *life is very meaningful* because I have decent job and supporting family…….
B	**RELATIONAL SOCIAL WELL-BEING**
a	**Relations with family members, friends and neighbours**
i	I have *frequent communication* with family members, friends and neighbours……
ii	I have *good level of interaction* with family members, friends and neighbours……
iii	I'm currently *satisfied with relationships* family members, friends and neighbours.....
iv	The *kind of information* I share and communicate with family members, friends and neighbours are kept *secured* .....
v	I *engage* in *social activities* with your family members, friends and neighbours
b.	**Body shape, appearance, and stress management:**
i	I am *comfortable* in my *body appearance*……
ii	I have a *positive self-image*……
iii	I often have *negative feelings* such as blue mood, despair, anxiety, depression…….
iv	I'm satisfied with the *number of hours I sleep*/ I get enough sleep……
v	I'm able to *overcome stress in life*…….
vi	I find it easy to *solve personal problems* that come up in my life ……
vii	To overcome challenges in life, it takes me *longer period* of time ……
C	**SOCIETAL SOCIAL WELL-BEING**
a	**SOCIAL CONTRIBUTION**
i	I sufficiently *contribute to the levels of education* in community…….
ii	I sufficiently *contribute to the culture and religious beliefs* in community …
iii	I sufficiently *contribute to health needs* in community…….
iv	I sufficiently *contribute to the levels of environmental needs*……
v	I sufficiently *contribute to politics and governance*…….
vi	I think my work provides an important product for my community. …..
b	**SOCIAL INCLUSION AND INTEGRATION**
i	I feel I *belong to a community*……..
ii	I feel that I'm *an important person in my community*……
iii	I feel like *people* in my community value me as *an important person*…..

iv	I feel that people my community take me *seriously and listen to my views…*
v	I feel that people in my community are *reliable, kind and honest* to me……
vi	I see *people in my community as important persons.….*
c	**SOCIAL ACTUALIZATION**
i	I am free to *take decisions* and *do what I want to do* in my community ……...
ii	I am *content with my current social position*……
iii	My community helps me to *learn new things* in my life…….
iv	Social institutions (family, politics, law) *make my life better*…….
v	My community is continually *evolving to make me a better in future*……
vi	My community is a *productive place for me* to live in…….
d	**SOCIAL ACCEPTANCE**
i	People in my community are *reliable* when I need assistance…….
ii	People in my community are *kind, not self-centered and considerate* to provide other people's needs……
iii	People in my community *care* about other people's problems…….
iv	People in my community have *positive thoughts and manners* about other people...
v	People in my community have their *neighbours' social contact* (telephone/email) …...
vi	People in my community have *social interaction* with other people…
e	**SOCIAL COHERENCE**
i	My community works towards reducing any *forms of void, exclusion and marginalisation …….*
ii	My community works towards offering me *great protection against hazards/risks.……*
iii	My community creates *equal access to environmental needs* (land, water etc)……
iv	My community creates an equal *sense of belonging, inclusiveness and opportunities* for upward social mobility (social status) ……
v	My community offers an *equal employment and rising income opportunities* ....
vi	My community offers me great and an understandable *cultural transformation* equally as other people…….
f	**INSTITUTIONAL TRUST**
i	I can trust the *local government staffs* (staff, police, and other civil servants) in my community ……
ii	I trust that I can easily have *access to the public welfare organisation* whenever I need help from them ……
iii	I trust the *services* rendered by *public welfare organizations* in my community ……
iv	I trust and *feel secured on the street and the surroundings of my house* when I provide vital information to state institutions…….
v	I have trust in *societal values and cultures*…….
vi	I have trust for *local governance, politics and civil organisations*……

	THREATS TO SOCIAL WELL-BEING
QN 16	*What are the threats to social well-being?*
For each of the following item respondents should select one of the following: 1. *Extremely Low 4. High* 2. *Low. 5. Extremely High* 3. *Moderately High/Low*	
A	**Trust gap**
i	To what degree do you feel you can trust "most people?
ii	To what degree do you feel you can trust "family members"?
iii	To what degree do you feel you can trust "your neighbors"?
iv	To what degree do you feel you can trust "friends and acquaintances"?
v	To what degree do you feel you can trust "work colleagues"?
vi	To what degree do you feel you can trust "unknown individuals" (strangers)?
B	**Risk experience**
i	I have a threatened livelihood due to *unemployment*……
ii	I have a threatened livelihood due to *low income*……
iii	I have a threatened livelihood due to *illness or injury*……...
iv	I have a threatened livelihood due to *food insecurity and shortage of portable drinking water* …….
v	I have a threatened livelihood due to *poor means of transportation or road conditions, traffic accidents* ……...
vi	I have a threatened livelihood because I have been a *victim of armed conflict.*…….….
vii	I have a threatened livelihood because I have been a *victim of political oppression and denial of human rights*……
viii	I have a threatened livelihood because I have been *a victim of corrupts acts* (e.g., civil servants demand brides from me) ……
C	**Discrimination experience**
i	I am discriminated in *job search/ occupation*…….
ii	I am discriminated in *mate selection*…….
iii	I am discriminated in *seeking justice*…….
iv	I am discriminated in *feeling secured*…….
v	I am discriminated in *choosing my place of residence*……
vi	I am discriminated in *seeking quality healthcare*……
D	**Community participation experience**
i	I find it difficult to participate in socio-economic activities in my community….
TASK 5: TO ASSESS MIGRATION AS A TOOL FOR SOLVING SOCIAL PROBLEMS BY THE POPULATION OF GHANA	
QN 17	*Is migration a tool to improving social well-being?*
	For each of the following items respondents should select one of the following:

	1. Strongly Disagree. 4. Agree *2. Disagree 5. Strongly Agree 3. Neutral*					
A	Some members of this family have out-migrated	**SD**	**D**	**N**	**A**	**SA**
	a) Within the country…					
	b) Outside the country…					
	c) Both within & outside the country….					
B	The out-migration of family members have solved the problems of *personal social well-being factors* such as:	**SD**	**D**	**N**	**A**	**SA**
i	Education					
ii	Health					
iii	Work and life balance					
C	The out-migration of family members have solved the problems of *relational social factors* such as:	**SD**	**D**	**N**	**A**	**SA**
i	Frequent communication					
ii	Good level of interaction					
iii	Satisfied relations					
iv	Engagement in social activities					
v	Body shape, appearance, and acceptance					
D	The out-migration of family members have solved the problems of *societal social well-being factors* such as:	**SD**	**D**	**N**	**A**	**SA**
i	Social Contribution					
ii	Social Inclusion and Integration					
iii	Social Actualisation					
iv	Social Acceptance					
v	Social Coherence					
vi	Institutional Trust					

TASK 6. TECHNOLOGIES THAT CAN INFLUENCE AND ENHANCE SOCIAL WELL-BEING OF GHANAIANS					
QN 18	*In the last three (3) months, I used the following emerging technologies from*				
	*Respondents should **tick** (√) once under the following options:*				
		Public	Private	Both	None
A	Internet				
B	Mobile devices				
C	Desktop computer/Laptop				
D	Internet of Things (IoT)				

E	Big Data Analytics				
F	Artificial Intelligence (AI)				
G	Block Chain				

QN 19 *In the last three (3) months, I use (A, B, C, D, E, F, G) for……*

Please indicate your response to each of the items that follow, by ticking **(√)** *or multiple responses under the respective alphabets (emerging digital technologies):*

A. Internet

B. Mobile devices

C. Desktop computer/Laptop

D. The Internet of Things (IoT)

e.g.; Connected appliances/Smart home/security systems/autonomous farming equipment, wearable health monitors/biometric cybersecurity scanners

E Big Data Analytics

e.g.; Using big data to predict and prevent cyber-crimes, card fraud detection/Advertisers use Big Data on Facebook, Google, Twitter to keep a track of the user behaviour and Transactions).

F. Artificial Intelligence (AI)

(**e.g. Google Maps and Ride-Hailing Applications/Face Detection and Recognition/Text Editors or Autocorrect/Chatbots/Digital Assistants/Social Media/E-Payments)**

G. Block Chain

***(e.g.*, Bitcoin/Spotify/Maersk/Aeternity/Matchpool/SimplyVital Health**

A	***PERSONAL SOCIAL WELL-BEING***							
	My personal wellbeing is influenced or can be influence when I use:	**A**	**B**	**C**	**D**	**E**	**F**	**G**
a	**Education**							
i	I have access to *basic educational information/resources* via……							
ii	I do *learn/ access education* via…….							
iii	My *teachers are knowledgeable in technology* and use …… in teaching							
iv	I am *satisfied* with the *kinds of education* I receive using……							
v	I can afford paying for the *cost involved in being educated* using…….							
vi	I am *not stigmatised and marginalised* when receiving education using…….							

vii	I do not travel for *long distance* when I want to use……. to study							
b	**Health**	**A**	**B**	**C**	**D**	**E**	**F**	**G**
i	I can/*make medical appointment* using…							
ii	I can/obtain *health information* using….							
iii	I can/make an *order for health insurance* using…….							
iv	I can/make *payment for the healthcare services* via…….							
v	I can/use …….to avoid *stigmatisation and marginalisation* when seeking healthcare							
vi	I can/use …….to avoid travelling for *long distance* when I want to seek medical care…							
c	**Work and life balance**	**A**	B	**C**	**D**	**E**	**F**	**G**
i	I'm eligible to job searches using……							
ii	I have the *capacity to work in any sector of the economy* because I know how to use…….							
iii	I'm satisfied with the *supports I get at my workplace* whenever I use…..…….							
iv	I am satisfied with *my work* because my *monthly income matches with my work output* whenever I use……							
v	My *work schedules* and activities using……offer me *enough time and resources* to meet family needs							
vi	I use…….at home and I feel my life is *meaningful and I enjoy life with my family*							
B	**RELATIONAL SOCIAL WELL-BEING**							
i	***My relational wellbeing is influenced or can be influenced when I use:***	**A**	**B**	**C**	**D**	**E**	**F**	**G**
ii	I make *frequent communication* with friends and families via…….							
iii	I'm currently *satisfied with relationships* family members, friends and neighbours via…….							
iv	The *kind of information* I share and communicate with family members, friends							

	and neighbours are *kept secured* using.....							
v	I engage in *social activities* with my family members, friends and neighbours via.....							
vi	Using……for relational and communication purposes with friends and families *avoid communication bullying....*							
d	**Body appearance and stress managements**	**A**	**B**	**C**	**D**	**E**	**F**	**G**
i	I get enough information about being *comfortable* and *confident in my body appearance* via……							
ii	I'm satisfied with the *number of hours I sleep*/ I get enough sleep because I get effective sleeping tips using ……							
iii	I *overcome stress in life* through the basic information I obtain via…….							
iv	I *overcome life challenges* and I find it easy to solve problems that come up in my life though the information I obtain via							
v	I often *overcome despair, anxiety depression* by using……							
vi	It takes me *longer period of time* to overcome challenges in life……							
C.	**SOCIETAL WELL-BEING**							
	My social wellbeing is influenced or can be influenced when I use:	**A**	**B**	**C**	**D**	**E**	**F**	**G**
a	**SOCIAL CONTRIBUTION**							
i	I sufficiently contribute to the *levels of education* in my community via…….							
ii	I sufficiently contribute to the *culture and religious beliefs* in my community via……							
iii	I sufficiently contribute to *health needs* in my community via…….							
iv	I sufficiently contribute to the *levels of environmental needs* via…….							
v	I sufficiently contribute to *politics and governance* via…							

vi	I think *my work provides an important product* for my community via…….							
	My social wellbeing is influenced or can be influenced when I use:	**A**	**B**	**C**	**D**	**E**	**F**	**G**
b	**SOCIAL INCLUSION AND INTEGRATION**							
i	I feel I *belong to my community* when I use...							
ii	I feel that I'm an *important person in my community* when I use …							
iii	I feel like people in society value as an important part of society when I use …							
iv	I feel people take me *seriously and listen to my views* in society when I use …….							
v	I feel that people in my society are *reliable, kind and hones*t to me when I use							
vi	I see people in my society as *valuable persons* in the community when …….							
	My social wellbeing is influenced or can be influenced when I use:	**A**	**B**	**C**	**D**	**E**	**F**	**G**
c	**SOCIAL ACTUALIZATION (POSITIVE VIEW ON SOCIETY'S PROGRESS)**							
i	I am free to *take decisions and do what I want to do* in my community……...							
ii	I am content with my current *social position* because I use……							
iii	My community helps me to *learn new things* in my life…….							
iv	Social institutions (family, politics, law) make my *life better*…….							
v	My community is *continually evolving* to make me a *better in future*……							
vi	Society is a *productive place* for me to live in…….							
	My social wellbeing is influenced or can be influenced when I use:	**A**	**B**	**C**	**D**	**E**	**F**	**G**
d	**SOCIAL ACCEPTANCE**							
i	People in my community society are *reliable* when I need assistance…….							

ii	People in my community are *kind, not self-centered and considerate* to provide other people's needs……							
iii	People in my community *care* about other people's problems…….							
iv	People in my community have *positive thoughts and manners* about other people...							
v	People in my community their *neighbours' social contact*…….							
vi	People in my community have *social interaction* with other people……							
	My social wellbeing is influenced or can be influenced when I use:	**A**	**B**	**C**	**D**	**E**	**F**	**G**
e	**SOCIAL COHESION**							
i	My community works to reduce any *forms of void, exclusion and marginalisation* in my community…….							
ii	My community works towards offering me great protection hazards/risks…….							
iii	My community creates equal *access to environmental needs* (land, water etc.)……							
iv	My community creates an equal *sense of belonging, inclusiveness and opportunities* for upward social mobility (social status) …							
v	My community offers an *equal employment and rising income opportunities* like other people in society…...							
vi	My community offers me great and an understandable *cultural transformation* equally as other people…….							
	My social wellbeing is influenced or can be influenced when I use:	**A**	**B**	**C**	**D**	**E**	**F**	**G**
f	**INSTITUTIONAL TRUST**							
i	I can trust the *local government staffs* (staff, police, and other civil servants) in my community ……							
ii	I trust that I can have access to *public welfare organisation* whenever I need help from them ……							

iii	I trust the *services rendered by public welfare organizations* in my community (social welfare, home health care, mental health care, doctor) ……							
iv	I trust and *feel secured on the street and the surroundings of my house* when I provide *vital information* to state institutions……							
v	I have trust in *societal values and cultures*…							
vi	I have trust for *local governance and civil organisations*……							
THANK YOU!								