



Health Informatics and Brain Drain Mitigation in Developing Countries – A Case of Ghana

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ABSTRACT

Health workers' migration in Ghana, like in many developing countries, has been a major concern for most governments due to its impact on socioeconomic development. Extant literature has revealed that a number of researchers have made attempts from various disciplines to find solutions to this menace. In this study, the field of Information Systems (IS) tries to tackle this challenge from a technological perspective to uncover how and when technology, i.e. Health Informatics, can be used to mitigate brain drain in the health sector of developing countries, using Ghana as a case. The study dwells on the theory of affordance, Maslow's theory of motivation, and Herzberg's Two-Factor theory to support the development of a conceptual framework. An exploratory research approach using a qualitative research design is adopted for this study. Theoretically, the study contributes to IS literature on migration which is not a common area of research in the field of IS. Practically, the study may present a basis for more technological adoption within the health sectors of other developing countries which see medical brain drain as a challenge.

Keywords: Health Informatics, Brain Drain, Developing Countries, Migration, Healthcare Technologies

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1. BACKGROUND TO THE STUDY

The health sector in developing countries continues to struggle with the migration of critical health workers to developed regions, thereby creating a huge deficit (Adogla-Bessa, 2017). For instance, there is an estimated 56% and 24% Ghanaian trained doctors and nurses respectively working in developed countries (Teye, 2014). The brain drain of health workers in developing countries is a development challenge because other statistics over the period have similarly indicated the alarming rates of migration among health professionals in the health sector of Ghana (Boadi, 2015), and other developing countries, e.g. (Abera, 2014; Adogla-Bessa, 2017; Chatziprodromidou et al., 2017; Driessen et al., 2015). Although a number of studies have been conducted from other disciplines, including the fields of Economics, e.g. (Beine et al., 2008); Public Health, e.g. (Chatziprodromidou et al., 2017); Migration Studies, e.g. (Boadi, 2015); etc. to tackle the menace of healthcare professionals' migration in the health sector, none has been done in the field of information systems; hence this study.

2. LITERATURE REVIEW

The concept of health informatics is concerned with the application of information science methods to collect, store, analyze and understand healthcare information. This includes diagnosis and tests, procedures, and case management recommendations for improved problem solving, and decision making (Dalrymple, 2014). HI has strongly established its relevance in the health sector with increased efficiency in patient information retrieval, and health-related decision making (Alyami and Noteboom, 2017). Electronic Health (e-Health), Health Informatics (HI), Healthcare Information Systems (HIS), Telemedicine, etc. are just few of the variations used in literature to connote the connection between technology and its applications in the healthcare sector (Masrom and Rahimly, 2015). According to Parthasarathy and Steinbach (2015), HI-assisted interventions are becoming even more popular in the early detection, treatment and management of some diseases such as diabetes, cancer, mental health, cardiovascular diseases, etc.