Studying Service SME Adoption of Mobile Marketing Technology (MMT) via Technology-Organization-Environment Framework

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ABSTRACT

While the acceptance and use of mobile marketing technology (MMT) is playing a significant role in small and medium enterprises (SMEs), few studies have explored how an appropriate framework for understanding the underlying factors that shape MMT adoption in Nigeria can be developed. This is because the majority of practitioners in Nigeria often generalize and extend the findings from the developed economies as if there are no environmental differences. This paper attempts to propose a grounded theory approach for assessing factors within technology-organisation-environment (T-O-E) framework in an attempt to explain and predict small service firms' adoption of MMT. The data collection approach spans unstructured and semi-structured interviews with 26 respondents, and the proposed framework provides an organized way to explore MMT adoption and a foundation for developing a model of MMT adoption in developing countries.

KEYWORDS

Adoption, Grounded Theory, MMT, Nigeria, SMEs, TOE

1.0 INTRODUCTION

The relevance of the service sector and of the digital devices, particularly the MMTs, and their concomitant adoption by different categories of enterprises is obsessively on surge (Charoensukmongkol & Sasatanum, 2017). Report from the National Bureau of Statistics (NBS, 2015) affirmed that the service sector contributes 52.99 percent of the GDP in the first quarter of 2014, which is the largest in Nigeria; and the telecommunications industry accounted for 27.36 percent of it; whereas, agriculture accounted for 19.65 percent. Similarly, Nigeria is the biggest and the most promising mobile telecommunications market in Africa with over 75 million subscribers and market penetration rate of about 61.53 percent; and 76 percent of internet traffic from mobile devices (https://abbakin.com/mobile-marketing-in-nigeria/). From 2014 to 2017, internet usage in Kenya rose from 48 to 53 percent against Nigeria, where it surged from 62 to 65 percent; and in South Africa, it increased from 48 to 65 percent (https://abbakin.com/mobile-marketing-in-nigeria/; Ekakitie-Emonena & Odanibeh, 2016). Beside the COVID-19 induced movement restriction, scholars (Amirkhanpour *et al.,* 2014; Inegbedion *et al.,* 2019; Ma *et al.,* 2009) suggest that the surge is obvious, because of the affordability

of mobile devices and other digital marketing applications that provide opportunities for large and small businesses to regularly advance their interactions, and businesses/marketing processes. Scholars (Lamarre *et al*., 2012; Shankar *et al.,* 2010; Balasubramanian *et al.,* 2002) consider MMTs and other marketing devices most effective and dynamic, because they involve personalized marketing and ubiquitous interactions within the value chain.

The implementation of MMT is vastly turning a vital marketing communication strategy for most organizations (Leppäniemi & Karjaluoto, 2008; Inegbedan, 2018), given the real-time and cost-effective sharing of contents. In the UK and US, for instance, many consumers are mobile users (Storm *et al.,* 2014); nearly 71 percent of UK consumers buy and sell via mobile applications (Park *et al.,* 2006); and from 2000 to 2008, MMT surged universally to 24 percent, accounting for 4 billion in the last quarter of 2008 (Eze *et al.,* 2019). Similarly, an inquiry shows that global MMT expenditure accounted for 17.96 billion USD and will be multiplied by the end of 2016 (Amirkhanpour *et al.,* 2014). Another study report 90% of firms are core investors in MMT, and approximately 25% of the entire marketing budget is linked to MMT (Sultan *et al.,* 2009). Other studies (e.g Earl & Feeny, 2012) show that SMEs rarely break-even or even make profits if they fail to adopt and implement emerging technology at the right market levels. Hence, the adoption of MMT has become a strategic tool for the survival of both large and small firms (Kim *et al.*, 2008; Harvie, 2010; Eze & Chinedu-Eze 2018), given that it consistently provides level-playing grounds and promotes interactions with clients and allies even outside physical presence (Eze *et al.,* 2019; Nguyen *et al.,* 2015).

In spite of the growing potentials of MMT in speeding up socio-economic developments amidst COVID-19 and its associated restriction of movements; scholars (Awa *et al.,* 2017a; Eze *et al.,* 2019; Awa, 2018) posit that majority of SMEs are yet to fully harness such potentials, owing to lack of indigenous frameworks that guide successful adoption, safety and security issues, uncertainty of use, issues of corporate culture and business mind-set, technical know-how, inadequate internet facilities and limited finances (Ojeme & Onuba, 2010; Inegbedion & Obadiaru 2018). In Nigeria, MMT adoption by SMEs remains sceptical regardless of the onerous encouragement by the government via N-Power, CBN, SMEDAN, Banks and Micro-finance banks, and others. However, studies are necessitated to unveil the key underlying adoption factors owning to the socio-economic criticality of mobile marketing and SMEs, and the dearth of adoption frameworks that may guide decisions. First, the critical mass of extant scholars (Lip-Sam & Hock-Eam, 2011; Earl & Feeny, 2012; Inegbedan, 2018) extensively deployed positivist approach to study MMT adoption. Such studies considered MMT adoption as straightforward, and relied broadly on quantitative approach (Williams *et al.*, 2009). Gilmore and Carson (2007) posit that discovering problems associated with SMEs should not only focus on testing theories, but also on in-depth exploration to build theories and get more comprehensive dimensions of small business context.

Second, on accounts of environmental differences; the adoption of MMT and other digital technologies has witnessed obsessive cross-context studies in the developing nations (Eze *et al.,* 2018; Eze *et al.,* 2019; Martin & Matley, 2001). Such is laudable and provides context-specific factors that underlie the adoption, but a more scholarly and insightful theoretical contribution than just cross-context inquiries is assumed when such studies are underpinned by the ground-breaking framework of technology-organization-environment (T-O-E). The T-O-E framework is more theoretically and empirically validated than most other adoption frameworks, and provides the socio-economic attributes of any technology against the illusion of accumulated tradition and determinism (Eze *et al.,* 2013; Inegbedion, *et al.,* 2019; Awa *et al.,* 2017a). Research works recognize the overlapping and deterministic nature of some of adoption theories: TRA is attitudinal, TAM undermines the interplay of social and emotional issues, and IDT and TPB overtly underplay the environmental and technological contexts (Awa, 2018) TAM's constructs overlap some of those in IDT; IDT's constructs interfaced with T-O-E's technology and organization; and the presence of environment in T-O-E makes it almost the most robust and populous IS framework for studying all manner of adoption by all manner of firms.

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