



## Linking the mobile telecom subscriber base to strategic motives of mergers and acquisitions: A critical review of literature in emerging economies of Africa and Asia

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[ijotm.utamu.ac.ug](http://ijotm.utamu.ac.ug)

email: [ijotm@utamu.ac.ug](mailto:ijotm@utamu.ac.ug)

**Najja Twaha**

Mbarara University of Science and Technology

Email: [twahanajja@gmail.com](mailto:twahanajja@gmail.com)

**Kamuganga Nuwamanya Dick**

Makerere University

**Ziwa Gertrude**

Uganda Technology and Management University (UTAMU)

### Abstract

Mergers and Acquisition (M&As) have attracted a wider debate in the mobile telecommunication industry. Strategic motives for M&As have become inescapable drivers for M&As deals in the mobile telecom industry, arguably to target the potential subscribers to the mobile products and services. The subscriber base has been used as a performance indicator by the mobile industry in almost all countries of Africa and Asia. Unfortunately the findings on whether subscriber base is influenced by the strategic motives for M&As are scattered or fragmented in various journals of different academic disciplines. Yet, the number of mobile subscribers usually gives an indication of how vibrant the telecommunication sector of a country is. The objective of this article is to answer two main questions: (1) whether there is any linkage between the strategic motives for M&A and the subscriber base? (2) What are the implications of enhancing strategic motives for M&As in relation to the subscriber base in emerging economies of Africa and Asia? The study used in-depth synthesis and analysis of literature in forty-five articles purposively selected from scholarly journals for the period 2003-2018. Overall, the review indicated that the overwhelming majority of articles revealed a positive linkage between strategic motives for M&As and subscriber base of mobile telecommunications operators. The results suggest that strategic motives for M&As are not only a justification for M&As, but also are important strategy for managers, investors and practitioners to increase the subscriber base of mobile telecom operators.

**Key words:** *Mergers and acquisitions,*

### Introduction

The number of mergers and acquisitions in the telecommunication industry has been increasing significantly in recent years in many emerging economies such as Pakistan (Kanwal et al., 2014, 64); India (Sasmita et al., 2017:6; Babu & Sheriff, 2012:147; Ghosh and Dutta, 2014:397, Seethanaik, 2015:21); and Bangladesh (Ahmed et al. 2018:173; Rahman, 2014:95).

In this article, four types of motives have been reviewed, that is, combining superior technology; expanding into new geographical markets, developing new products or services and expanding network coverage. These motives have been widely discussed in the M&As literature in developed and developing countries. For example, several researchers report that multiple motives may be involved in UK mergers (Hodgkinson and Partington, 2008; and Arnold and Parker, 2009). Literature shows that strategic motives for M&As have correspondingly attracted much research attention in the past two decades, for examples: access new technology (Gosh & Dutta 2014:201; Hagedoorn & Duysters 2002:68; Koi-Akrofi 2014:1810; access to new products (Lees:2003; Aguzzoni et al.2018:64); expand network coverage (Duppatt & Rao, 2015:2; Koi-Akrofi 2014:1810) and expansion into geographical markets (Aguzzoni 2018:64; Nagano & Yuah, 2013; Ficery et al., 2007); Dao et al., 2017; Duppati & Rao, 2015:2).

The findings from the studies on subscriber base seem to suggest increasing growth of the mobile industry in almost all countries in Africa (i.e Sankaran and Nguyen 2011) and Asia (i.e Sirapraha and Tocquer, 2012; Ahmed et al., 2016:173). However, the existent studies on whether motives for M&As, in particular strategic motives are linkage to subscriber base have showed mixed findings. The problem has been worsened when all these findings could not be accessed into one single study, as the findings have remained fragmented in various scholarly publications and journals of different disciplines including Economics, Management, Finance, Accounting, Technology, Science, and ICT. This literature gap has motivated our study. The objective of this article is to answer two main questions: (1) whether there is any linkage between the strategic motives for M&A and the subscriber base in emerging economies of Africa and Asia? (2) What are the implications of enhancing strategic motives for M&As in relation to the subscriber base as a performance goal in the mobile industry today?

Five reasons can be advanced for the continued debate on this subject: (1) there is a relatively small number of M&As in emerging markets (Ma et al., 2009:236) (2) researchers categorize strategic motives differently with many sub divisions (3) studies on motives for M&As have been conducted in many fields but assign them different terminology that may mean either different or the same thing (4) the majority of studies on M&As have been conducted in developed countries like USA (Nguyen et al., 2012:1357); Netherlands (Hagedoorn et al., 2006: 642–654); Croatia (Davor, 2012:435-444); Austria & Netherlands (Aguzzoni et al.2018:63-87) and UK (Hodgkinson & Partington, 2008;Arnold & Parker, 2009) etc; and extended belatedly to emerging economies i.e China in 1980's and India (i.e Zhu & Zhu , 2016; Gosh & Dutta, 2016) (5) There is a lack of comprehensive database on M&As transactions in emerging markets (Ma et al. 2009:236). According to Nguyen et al., (2012:1357) even research studies of non-US mergers also have reported inconclusive results on merger motivation. This study is purely a critical review of literature published in journal articles and internationally recognized publications from 2003 to 2018. The study is important as it attempts to overcome the limitation of generalization of results from developed economies to the economic conditions in the emerging economies of Africa and Asia. The review of literature extend over selected emerging economies in Africa and Asia including but not limited to: China, India, Bangladesh, Pakistan, Malaysia, Hong Kong, Turkey, Singapore, South Korea, South Africa, Egypt, Nigeria, Ghana, Zimbabwe, Kenya, Uganda, Tanzania, Rwanda, etc. The article is structured as follows: Section 2.0 provides the conceptualization of key terms. Section 3.0 presents an extensive review of literature on the link between the adopted strategic motives and the subscriber base. Section 4.0 presents the methodology. In section 5.0 we discuss the findings. Section 6.0 provides the conclusion, limitations and suggestions for further research.

## **Conceptualization of key terms**

Acquisition is the purchase of shares or assets of another company to achieve a managerial influence not necessarily by mutual agreement (Ali et al., (2017: 127). However, this term and “merger” are often used interchangeably. The reason is advanced by researchers such as Weber et al., (2013) who assert that even if a merger is supposed to be between “equals”, within the first couple of weeks, one party will arise as the controlling party while the other is being the controlled. in line with the earlier argument, Ali et al., (2017: 127) defines the term “acquisition” as the purchase of shares or assets of another company to achieve a managerial influence not necessarily by mutual agreement. On the other hand, the term merger is used to describe when two (or more) companies amalgamate into a new entity on “equal” terms. A merger happens when two firms, often of about the same size, agree to go forward as a single new company rather than remain separately owned and operated (Arora et al., 2012:31). This kind of action is more precisely referred to as a “merger of equals”.

The term mobile refers to “applications which are designed for users on the move” (Ankar & Incau 2002). Telecommunication basically is the transmission of signals over a distance for the purpose of communication. Mobile device is commonly known as cell phone and users commonly use it for communication and as a wireless delivery channel (Zohara & Kasif (2011:537) while mobile banking is defined as “a form of banking transaction carried out via a mobile phone” (Amin et al., 2007),

Mobile cellular telephone subscriptions are subscriptions to a public mobile telephone service using cellular technology, which provide access to the public switched telephone network (Oteri et al., 2015:2). According to the World Bank, post-paid and prepaid subscriptions are included in the subscribers.

Mobile Penetration rate is a term generally used to describe the number of active mobile phone numbers (usually as percentage) within a specific population (Saxena & Tiwari, 2016:105).

The definition of the term “Mobile subscriber base” can be deduced from the research works of Abdulghani et al. 2014; Sirapraha and Tocquer (2012). Mobile subscriber base can be defined as the number of users of mobile phone services or products of a mobile operator.

A Service is "Any primary or complementary activity that does not directly produce a physical product “(Angelova and Zekiri, 2011:244). According to Payne, 1993 cited in Angelova and Zekiri (2011:244), a service is the non-goods part of the transaction between customer and provider" (Payne, 1993).

## **The concept of motives for M&As**

Koi-Akrofi (2014) in his article titled: Motives for Telecom Mergers and acquisitions” defined motives in mergers and acquisitions literature as “the driving forces behind the strong desire for mergers and acquisitions”. In support of this definition, Smirnova, (2014) points out that a deeper understanding of motives for mergers and acquisitions allows us to recognize what forces (economic, financial, technological, etc.) drive companies and other establishments towards the creation of such alliances.

### **The primary motive of M&A –Using a dynamic approach**

There are several possible motives or reasons why a company chooses to grow through an M&A (Lees, 2003, but the most common motive is to create synergy (DePamphilis, 2005). Synergy represents the additional value that is created by merging two firms together (Lees, 2003; Gaughan, 2002). If mergers do not create value for acquiring firms, it is unclear what bidders intend to achieve in merger activity (Nguyen et al. 2012:1357). Although some researchers such as Lees (2003) points out that value destruction is an unanswered question when it comes to M&A, in a survey by A.T.Kearney in 1998/99 it was found that half of the companies failed to attain this value creation and instead destroyed value (cited in Habeck, Kröger & Träm, 2000). Similar debates for M&As notwithstanding, some researchers (ie Hitt et al., 2001) contend that synergy might be one of the reasons for M&A deals and further that none of the reasons for acquisitions are preferable if there is no synergy effect in merging the two firms. In other words, by borrowing the voice of Ancient Greek philosopher and scientist Aristotle, the main reason for M&As is because “the whole is greater than the sum of its parts”. This philosophical proverb takes on the form of the common mathematical equation  $2 + 2 = 5$ , which in essence is an expression for the synergy effect (DePamphilis, 2012; Gaughan, 2010; Weber et al. 2013). The use of synergy as an explanation why companies merge with or acquire others introduces the dynamic approach in the M&A literature. In line this approach, Canina & Kim (2010) state that synergies differ in terms measurability and the required efforts to generate benefits. A synergy can be to merge or acquire a company that has access to a new geographic market (Sherman, 2005; Koi-Akrofi, 2014) or access to a new customer segment allowing the acquiring company to reach those new markets and segments at a faster pace and at a lower cost (Ficery, Herd & Pursche, 2007).

### **Classification of motives for M&As**

Qaderi and Bouzeid (2017) pointed out that no universal distinction in the classification of the drivers exists in the literature. This is supported by the varied classifications of motives of mergers and acquisitions in the recent past. In the study, “Cross Border Mergers as Instruments of Comparative Advantage”, Neary (2004) indicated that business organization literature has identified two major common reasons why mergers and acquisitions are sought after: efficiency gain and strategic rationale. Neary (2004) however, pointed out that this classification is not exhaustive arguing that despite these two broad motives, there are others worth mentioning to make the literature complete. In tandem with Neary’s assertion many researchers have classified the motives of M&As in many ways: Poposki (2007) classified M&As motives broadly into financial and no-financial motives. Brouthers et al. (1998) divided merger motives into three categories: economic, strategic and personal. Seth et al. (2000) and Carpenter & Sanders (2007) offered a division of the motives into synergy, managerialism and hubris while Haleblan et al. (2009) made it into four: value creation, managerial self-interest (value destruction), environmental factors and firm characteristics. Other common of categorization include: Hayward (2002) who divided acquisitions motives into four categories: market-entering acquisitions or entry into new markets (Koi-Akrofi, 2014; Ernst & Young, 2011); market strengthening acquisitions; market elaboration acquisitions or new technology acquisition (Zhou et al., 2014; Ernst & Young, 2011); and market extending acquisitions (Koi-Akrofi, 2014:1810). In contrast, Zhu & Zhu (2016:1130) argue that although these categories are the same as those identified in general M&A research, some specific antecedents are different. Qaderi and Bouzeid (2017) drew a general conclusion that most of the motives reoccur under different names and classifications.

## **Mobile Network Operators (MNOs)**

Tyagi (2018:189) draws a distinction between MNO from MVNOs. He defined MNOs as the service providers that own infrastructure. Unlike the MNOs, Mobile Virtual Network Operators (MVNOs) do not have their own infrastructure; instead they negotiate and enter into complex network sharing agreements with the MNOs (p.189). According to Tyagi (2018:189) the MNOs and the MVNOs constitute the market often referred to as the “wholesale market for access and call origination on mobile networks” in which the MNOs comprise the supply side and the MVNOs comprise the demand side. Mobile Virtual Network Operator (MVNO) has been yet another incoming new service provider for better pricing and better operational plan (Velu et al. 2014:54). However, this article focuses on MNOs only.

## **Literature Review**

In this article, we review literature related to the effects of four strategic motives for M&As on the subscriber base as a measure of performance of the mobile operators. The review of literature on the findings by previous researchers allows us to understand whether subscriber base has a direct or indirect linkage to the strategic motives for M&As in emerging economies of Africa and Asia.

### **Expanding the mobile network coverage and subscriber base**

In the study by Aker and Mbiti, (2010:208) on the evolution of the mobile phone and adoption in Sub-Saharan Africa over the past years they reported that in 1999 only 10 percent of the African population had mobile phone coverage, primarily in North Africa (Algeria, Egypt, Libya, Morocco and Tunisia) and South Africa (Aker and Mbiti, 2010:208). They mentioned that by 2008, however, 65 percent of the African population had access to the mobile phone service, with 93 percent covered in North Africa and 60 percent in Sub-Saharan Africa (p 209). Ndukwe, (2000) cited in Alabar et al. (2017:2), pointed out that the telecommunication industry in Nigeria has witnessed a tremendous increase in the subscriber growth for all the mobile telecom operators since the full liberalization of the sector in 2000. Alabar et al. (2017:2), asserted that the subscriber growth could not be attributed to customer satisfaction alone, but fundamental to the substantial growth in investment and expansion of the network during the past ten years. (Alabar, 2017:2).

Oteri et al., 2015 find that mobile coverage patterns have continued to demonstrate a positive growth in the number of subscribers over the period 1999-2013. Consistent with Oteri et al., (2015), Bhuya and Sing (2003) observed that network coverage is one of the attributes that are significant while choosing cellular services. According to Shinde (2015), the significance of Network quality in selecting the mobile service provider by the subscribers underscored the demand for network coverage and a pricing concern by the subscribers. Dubey and Trivedi (2013) analyzed Consumers Perception towards Cellular Service Providers in Indore District. Consistent with the finding by Shinde (2015), they found that customers were very conscious about the network coverage followed by the price charged by the telecom service provider. This suggests that merging the operations of two firms may permit firms to reorganize services across their combined networks.

Olatokun & Nwonne 2012:29) suggested that the network operators should invest in network extensions, quality service delivery and product and services outlets infrastructures, while also concentrating on price reduction strategies as a way of increasing subscribers' base.

Nwakanma et al., (2018) examined the factors influencing telecommunication subscribers' decision to Port among Network Providers in Nigeria. Using regression analysis the study found that among other factors, Network coverage significantly influence on subscribers' decision to port among network providers in Nigeria. They recommended that the network operators should assume the adequate control and management focus more on network extensions to various location where there is low network coverage, such that subscribers will be able to operate smoothly (Nwakanma et al., 2018).

Birke & Swann (2004) explored the role of network effects in the consumer's choice of mobile phone operator in the UK. They used both market level data and micro level data on consumer usage of mobile using a survey called "Home online" (with data on individual Mobile phone usage). They analyzed the data using econometrics package STATA. Birke & Swann (2004:3) pointed out that customers would adapt to the network not because of the direct interaction with some peers, but rather because of the availability of complementary services. Birke & Swann (2004:3) expected that the usage volume of existing subscribers increases with the total number of mobile telephone subscribers (p.9).

Timothy et al., (2017) conducted a study on "Service quality and customer satisfaction in Nigerian mobile telephony". The survey was restricted to subscribers using the four major GSM mobile phone operators. The data obtained from the survey were analyzed using the Statistical Package for Social Sciences (SPSS), Version 20. They found that the growth trend in the number of subscribers from 107 million subscribers to 116 million subscribers in Nigeria' mobile telephony could not be attributed to customer satisfaction alone; fundamentally to the substantial growth in investment and expansion of network access during the past years (Timothy et al., 2017:5).

Birke & Swann (2004) argue, however, that while it is widely acknowledged that network effects are a key feature of telecommunications industries, and indeed that telecommunications networks provide perhaps the leading example of network effects, relatively few studies have analyzed the empirical importance and extent of network effects in the telecommunications market. They further argue that the different impacts are currently only partially explained by the existing economic literature.

### **Developing new mobile products or services and subscriber base**

Olatokun & Nwonne (2012) in their study, "Determinants of Users' Choice of Mobile Service Providers in the Nigerian Telecommunications Market" observed that consumers of telecommunications products and services in Nigeria are varied and their tastes, needs and expectations are also varied (NCC, 2007). According to Asare & Diaw (2015:16), Mobile Money Transfer is a fast, simple, convenient, secure and affordable way of transferring money, making payments and doing other transactions using a mobile phone. Oteri et al., (2015:6) pointed out that the use of mobile money transfer service has expanded further to the un-banked population because of its coverage and effectiveness. They argue that even at firm level at the end of June 2010, Safaricom and Airtel are in the first and second largest operators in Kenya with 21,928, 450 and 5,068,705 subscribers, respectively.

Oteri et al., (2015:6) argued that as more and more people especially the youth continue to join the social networks like face book , twitter, blogs the growth in subscriptions of the mobile operators is expected to continue risk further , even though it is heading to maturity. Adebisi et al., (2016:52) point out that the opportunities that lie in the telecommunication market seem endless and the growing demand

for mobile telephony systems is creating a worldwide market. They noted that customers could switch companies if the next competitor introduces new products, launches new services or brings to the market new technology that has never been used before (Adebiyi et al., 2016:56).

Ho and Kwok (2003:11) used data from an empirical study to determine whether a mobile service provider can use personalized services to attract subscribers to switch to any particular company. They found that client preference for tailor-made products or personalized services from the provider increased the number of subscribers. According to (TRAI, 2010), the launch of the Internet market partly drove growth in India's telecommunication subscriber base to 67.6% at end of year 2010. The implication is that mobile users are increasingly becoming mobile and as such would prefer mobility in terms of products and services. Velu et al. (2014:54) adds that mobile phones are no longer a tool to communicate, but the device used to play games, camera to take photos or connect to the internet and corporate information technology systems.

In their study, Rahman, et al., (2014:75) examined the factors affecting customer satisfaction in the Mobile telecommunication Industry in Bangladesh. Using a sample of 282 in the questionnaire survey administered to mobile phone users, the study revealed that the phone is not only used for making calls, among many other functions, it is used for communicating through text-messages, multi-media messages, as well as to connect us to the internet Rahman, et al., (2014) point out that telecommunication service providers like manufacturing organization offers a wide range of product and service; based on customers' needs. The range of products and services include; voice call, voice SMS, MMS, information service, roaming, internet service, video call and remote customer care service. They pointed out that the mobile telecommunication sector in Bangladesh has grown (Rahman, et al., 2014:57) and the total number of mobile phone subscribers reached 115.627 million at the end of April 2014 (BTRC, 2014).

The literature on network effects usually distinguishes between two types of network effects: direct network effects and indirect effects. Direct network effects refer to the case where users benefit directly from the fact that there are large numbers of other users of the same network. In mobile communications, a direct network effect arises when the user can call a larger set of persons. Indirect network effects, on the other hand, arise, because bigger networks support a larger range of complementary products and services.

### **Combining superior technology and subscriber base**

Rahman (2014) examined the factors affecting customer satisfaction in telecommunication Industry in Bangladesh. The study (Rahman, 2014:80) pointed out that during the previous years, where technology had not advanced so much in this area; company networks were limited only to certain locations. Today the signal quality has been improved and the company networks have grown to a great extent (Rahman, 2014:80). Two thirds of the global population is now mobile subscribers; mobile has a greater reach than any other technology (GSMA, 2017:4). Based on this finding, Zhu & Zhu (2016: 1132) deduced that Chinese firms largely access technologies through cross-border M&As. Phene et al., (2012) asset that in technological acquisitions acquirers tend to purchase targets with unique technologies (Gotts et al., 2008:445). Mayer and Kenney (2004:299) note: "More than any other high-technology firm in history, Cisco has built its dominant market position through acquisition".

## Expanding into new markets and subscriber base

According to Johnson and Scholes (1997), mergers and acquisitions (M&As) are a fast way of entering new areas of markets or products. Bena & Li, 2014, points out those acquirers tend to acquire targets with complementary assets and with product market similarities. Zhu & Zhu (2016:1130) further pointed out that Chinese firms have purchased firms in developed countries for their global distribution networks and to access enterprise customers. They gave an example of Chinese PC producer Lenovo that acquired IBM's PC division in 2004 to access not only the advanced technology needed to produce the Thinkpad for high-end consumers but also IBM's prestigious enterprise customers (p.1130). However, Gotts et al., (2008) observe that a merger of technology companies could result in the acquiring company deny potential entrants access to the relevant markets.

## Methodology

The article was written based on secondary sources of data, in particular published journal articles and classic publications. We conducted a review of the extant empirical research on motives for M&As with a focus on the effects of strategic motives on the subscriber base in mobile telecommunications industry over the last 15 years (2003–2018). Our review of the articles includes the journals listed in Table 2. The articles were searched using a combination of computer-aided keyword searches and manual searches of leading journals in Economics, Finance, Science, Technology, Sociology and General Management. We searched purposively and selected the final sample of 45 articles using an inclusive-exclusive approach based on any of the following key words: merger, acquisition, subscriber base, and mobile telecommunications, motives of merger & acquisition. Overall, our literature search resulted into a selected sample of 42 journals covering 45 articles related to the study for the period under review. We read each abstract to control whether the article was relevant to the field of M&As in the subscriber-based service companies and in particular, the mobile telecommunication industry. The articles included in the study met the following criteria: (1) they included a combination of any two key words - motives of M&As; strategic motives and the subscriber base. (2) They were published from 2003-2018 (3) they included a post-M&A outcome-the subscriber base or number of mobile subscribers (4) They were empirical studies. We then did a desk review of the research findings from the adopted articles. As a control group of data, we also read articles on non- M&As studies but included a combination of key words to find whether there was any mention or discussion of the strategic motives in relation to the subscriber base. Lastly, as adopted from Moore and Lawani (2016:91), we analyzed the 45 articles using a chronological and interpretive approach to present data. The review draws from the key empirical findings the opportunities for future research (Hitt et al., 2012). Table 1: presents a list of journals and publications used in the review.

**Table 1:** Journals or publications included in the review.

#	Name of Journal /Scholarly publication reviewed	Volume	Number of Articles dealing with at least two key words.	Motives of M&As mentioned directly or indirectly? Y=Yes. or N=NO	Subscriber base/ customer base mentioned .Y=Yes. or N=NO
1	Advances in Mergers and Acquisitions	Vol.2: 207-229	1	Y	Y
2	Advances in Mergers and Acquisitions.	Vol 3:181 – 200	1	Y	N
3	Accounting and Finance Research.	Vol.5, (4), 2016	1	Y	N
4	ACM SIGecom Exchanges, 2003	Vol. 3 (4): 10-18, 2003.	1	N	Y



5	African Journal of Computing& ICT	Vol 5 (4): 19-32	1	Y	Y
6	Economics Letters, 2008	Vol. 100(2), 189-191, 2008	1	Y	N
7	American Journal of Computer Science Technology.	Vol.6 (1):1-11.	1	N	Y
8	Asia Pacific Journal of Management	Vol. 33:1107–1149	1	Y	Y
9	Business & Management	Vol.2:1-11, 2015	1	Y	Y
10	British Journal of Marketing Studies	Vol.3, No.6, 15-30, 2015	1	N	Y
11	De Economist (2018).	166:63–87,2018.	1	Y	Y
12	European Competition Journal.	VOL.4 (2): 463-483, 2008	1	Y	Y
13	European Journal of Business and Management.	Vol.7,No.25, 2015	1	Y	Y
14	Journal of Finance and Accounting.	Vol.2(5):108-115	1	Y	N
15	Journal of Competitiveness.	Vol.8 (3):52 – 67.	1	N	Y
16	Journal of marketing research	Vol. III, 728-744	1	Y	Y
17	Journal of World Business. 2015.	Vol.50 (4): 651-662.	1	Y	N
18	Journal of World Business, 2017	Vol.52(2):127-183.	1	Y	Y
19	European Journal of Research and Reflection in Management Science.	Vol.6 (4) 2018	1	N	Y
20	International Journal of Science Technology and Management.	Vol.4, Special Issue No 1, 2015.	1	N	Y
21	International Journal of Advance research in computer Science and Management Studies, 2017.	Vol. 5(12):4-12, 2017.	1	Y	Y
22	International Journal of Innovation and Applied Studies (IJIAS).	Vol.9:1809-1817, 2014	1	Y	Y
23	International Journal of Engineering Technology Science and Research (IJTRSR).	Vol.4(8), 126-140, 2017	1	Y	N
24	International Journal of Management Science and Business.	Vol. 3(6): 23-27, 2017	1	Y	N
25	International Journal in Management and Social Science.	Vol. 3(2), 2321-1784,	1	Y	Y
26	International Journal of Advanced Research in Artificial Intelligence.	Vol. 4(1): 2015.	1	N	Y
27	International Journal of Academic Research in Business and Social Sciences.	Vol. 1 (3):232-249.	1	N	Y
28	International Journal of Organizational Analysis.	Vol. 21 (1) 66-82, 2013.	1	Y	N
29	International Journal of Science Technology and Management	Vol.4 (01), 2015	1	Y	Y
30	Innovative Journal of Business and Management.	Vol.1:60-68, 2012	1	Y	N

31	Institute for Innovation and Completion (IIC), Munich.	Vol. 49:185-220, 2018	1	Y	Y
32	PLoS ONE 12(2): e0172488. doi:10.1371/journal.pone.	Vol. 12(2): e0172488, 2017.	1	Y	N
33	Performance Management Association	Vol. 17(4)2009	1	Y	N
34	The Journal for Decision Makers	Vol. 40(3) 293-312	1	Y	N
35	Telemetric and Informatics	VOL.33(2),674-682	1	Y	Y
36	Journal of Management.	Vol. 38(3): 753–783	1	Y	Y
37	Strategic Management, 2002.	Vol. 14(1), 2002	1	Y	Y
38	Journal of Finance, 2014.	69(5):1923–1960.	1	Y	Y
39	Journal of Engineering Technology Science and Research	Vol.4 ( 8) 2017	1	Y	Y
40	Journal of Brand Management, 2014	Vol. 21(7/8), 615–634.	1	Y	Y
41	Strategic Management Journal, 2001.	vol. 22(3), 197-220;	1	Y	Y
42	Sustainability, 2018	Vol.10:1-15.	1	Y	N
43	Technology Analysis & Strategic Management.	Vol. 14(1), 2002	1	Y	N
44	Industrija, Vol.44, No.1, 2016	Vol.44 (1), 2016	1	Y	Y
45	World Journal of Globalization and Technology Development.	Vol. 1:1-18, 2014.	1	N	Y

*Source: Authors' own construction.*

## Discussion of findings

### **Subscriber base, a non-financial performance measure: Empirical evidence in Africa and Asia**

According to Barney, 2001:26) the choice of performance measure has been a difficult issue facing researchers in the organizational field. Performance refers to the achievement of an enterprise with respect to some criterion (Lenz, 1980; 1981) making it the ultimate test of any strategy adopted by an organization. Performance is defined as the process of quantifying the efficiency and effectiveness of an action (Neely et al., 1995). Literature on performance reveals that adopting any type of performance measurement is subject to criticism and limitations as there is no consent among researchers and academics upon the optimal measures of performance. Performance measurement of mergers and acquisitions could not have been the exception to these limitations and criticisms (-these criticisms are not part of this study). In view of these arguments, the subscriber base has been used as a performance indicator by the mobile telecom and the mobile industry in almost all countries of Africa and Asia. We highlight below, statements from some of the studies where subscriber base has been used as a key indicator of performance of the mobile telecom industry in emerging economies of Africa and Asia.

**Table 2:** Statements citing “subscriber base” as a key indicator of performance of the mobile telecom industry.

Statement	Author (s)
<i>“China is now the world’s largest telecom market (Zhu &amp; Zhu, 2016) and according to analysts’ figures, there are more than 1.25 million cellular subscribers signing up every week (Pyramid, 2003)!”</i>	Pyramid, (2003).
<i>“With more than 500 million subscribers, India is the second largest mobile phone market in the world after China”</i>	Babu et al., 2012:144
<i>“According to the Telecom Regulatory Authority of India (TRAI) 2010, it took India to the second position in terms of wireless network in the world, next only to China when the total wireless subscriber base in the industry crossed the 500 million mark and reached 509.03 million by the end of September 2009 and 811.59 mobile subscribers in 2015” (Seethanaik, 2015:21). “India telecom sector has emerged as one of the fastest growing economies in the world today” (Kumar, 2014:34).</i>	Seethanaik, (2015:21).  (Kumar, 2014:34).
It is one of the fastest growing industries in the world and has proved to be an international success story. India has developed as the second largest telecommunication market with 898 million subscribers as on March, 2013.	Nabirah
<i>“Nigeria is believed to be one of the largest telecommunication market in the world, having an estimated subscriber base of about 149.2 million (NCC, 2017)”</i>	Nwakanma et al., (2018:1).
<i>“Thailand’s mobile market has grown substantially from approximately 7.9 million subscribers in 2001 to over 70 million subscribers by the end of 2010”.</i>	Sirapracha & Tocquer , (2012:104)
<i>“Sub-Saharan Africa (SSA) has been the fastest growing region over the last five years in terms of both unique subscribers and connections (i.e. SIM cards), with the unique subscriber base growing at a compound annual growth rate (CAGR) of 17% per annum over the period. (GSMA- The Mobile Economy, 2014:8)” By June 2014, there were 329 million unique subscribers, equivalent to a penetration rate of 38%” (p.2).</i>	GSMA- The Mobile Economy (2014:8)
Sub-Saharan Africa region: <i>“The region is dominated by six major markets (Nigeria, South Africa, Tanzania, Ethiopia, Kenya and Democratic Republic of Congo) that together account for over half of its subscriber base” (GSMA, 2014:108)”</i>	(GSMA- The Mobile Economy, 2014:108)”
According to CAK, <i>“Among the operators at the end of June 2014, Safaricom had the highest subscriber with 21,928,450, Airtel is in the second positions with the total subscriber base of 5,068,765.”</i>	Oteri et al.,(2015:3)
<i>“Grameenphone is the largest telecommunication service provider in Bangladesh with a market share of 50.3 % and almost 14 million subscribers as of August 2007; of these, 95 % are pre-paid users.” p.6.</i>	Welle-Strand 2008, (2):6
<i>“Grameenphone is the largest mobile phone company in Bangladesh with 19.58 million customers as of May, 2008. It is also one of the fastest growing cellular telephone networks in Bangladesh.” p.102.</i>	Helmersen & Geirbo (2008), (2):102

Source: Adopted from studies on mobile telecom in emerging economies.

### The articles reviewed on strategic motives for M&As and subscriber base

The articles used in the final sample included any two or a combination of key words: mergers, motives of M&As, strategic motives, acquisition, subscriber base, subscription or customer base and mobile telecommunications in the title or abstract to establish whether the studies showed the linkage between strategic motives and subscriber base. We compiled a summarized schedule (Table 3) in which at least one or two motive were fully discussed and linked to the subscriber base. In this respect we found three major categories of articles: First, we found articles where both the motives for M&As and the subscriber base were mentioned but no connection was established, hence the word “subscriber base” was mentioned in passing. Second, we found articles in which the M&As motives were mentioned and discussed but no mention at all was made to the subscriber base either as a motive or an outcome of M&A activity. Third, we found articles where the words “subscriber base” and “mobile telecom” were mentioned but in a non-M&A study environment. We analyzed these three situations and drew the linkage between the strategic motives for M&As and the subscriber base of the mobile telecommunications operators.

**Table 3:** The articles reviewed on the linkage of strategic motives for M&As to subscriber base

	Subscriber base / customer base mentioned in the Articles	Subscriber base / customer base NOT mentioned in the Articles	Total
Motives of M&A mentioned in the Articles.	22 (48.9%)	13 (28.9%)	35 (77.8%)
Motives of M&As NOT mentioned in the Articles.	10 (22.2%)	0 (0%)	10 (22.2%)
Total	32 (71.1%)	13 (28.9%)	45 (100%)

*Source: Authors' own construction*

Our findings were that some articles mentioned the motives for M&As did not mention subscriber base at all. This finding was found consistent with the observation by Helen (2003:3) that there was nothing about customers and/or suppliers in the very early literature on M&As. She argued that customers and suppliers existed only in terms of demand or resources in which case they were not expected to react in any way to a merger or an acquisition Helen (2003:3).

In our review where any study mentioned neither motives of M&As nor subscriber base or customer base, it was assigned a score of 0 (0%) as it could not show any linkage. The review further showed that the words "motives of M&As" were mentioned in 35 (77.8%) articles; subscriber base or subscriber growth in 32 (71.1%) articles. The review also indicated that although the linkage of the motives of M&A to the subscriber base have been established, the number of articles that were very clear with the linkage were less than a half of the total number of articles reviewed. For example, out of 45 articles (100%) only 22 (48.9%) articles mentioned and linked M&A motives to subscriber base. The situation was worsened when 13 articles (28.9%) of the total of 45 articles (100%) did not mention at all the words "subscriber base" and hence no linkage was established. We further found that in 22 (48.9%) articles where both M&A motives and subscriber base were mentioned in the mobile telecom M&As literature, they were fully discussed and the relationship established. This has formed the final result of our study.

More often the "subscriber base" was recognized in terms of "number of subscribers" or in terms of 'subscriber growth'. The review of literature suggests that subscriber base can be described in terms of number of mobile telecom subscribers" or subscriber growth or in terms of subscribers as an aggregated homogeneous group. The review also found that number of subscribers can be used as a determinant of the telecom growth (Nwakanma et al., (2014:7), or performance of the mobile telecom industry (Sirapracha & Tocquer, 2012:104). For example: According to Nwakanma et al., (2014:7), the number of telecom subscribers is one of the determinants of telecom industry growth in Nigeria. Thailand's mobile market has grown substantially from approximately 7.9 million subscribers in 2001 to over 70 million subscribers by the end of 2010 (Sirapracha & Tocquer, 2012:104)

Nevertheless, existent studies have shown how subscriber base is important in M&As literature as a measure of performance in the telecommunication industry in a number of emerging economies in Africa and Asia (Seethanaik, 2015:21; Babu et al., 2012:144; Oteri et al., 2015:3; Sirapracha & Tocquer, 2012:104). Seth et al. (2002) underscore that the ability to fully understand the motives behind a merger or acquisition is imperative to effectively appreciate the performance of the transaction. Despite the mixed findings revealed by some articles, the overall majority of the articles revealed a positive relationship

between strategic motives for M&As and subscriber base. The mixed results were explained partly by the presence of pre-determined goals such as “price” (Herrmann, et al. , 2007; Aguzzoni et al., 2018). However, “price” and other external factors were either assumed constant or were not a focus of discussion in this article.

## **Conclusion**

In sum, we conclude that something positive usually comes out of the strategic motives of merger and acquisition to the mobile telecom operators in terms of increased number of subscribers. Telephony remains the most widely used means of communication in the world today. Although researchers have increasingly used subscriber base and penetration rate to indicate how vibrant the telecommunication industry is, there is limited empirical data linking the strategic motives of M&As to the subscriber base. This finding is consistent with Chenhall and Langfield Smith, 2007 who found that companies fail to link performance measures to strategy. It is this research gap that motivated this study in order to synthesize and analyze the findings from existent studies that have researched on strategic motives for M&As and subscriber base in both M&As and non-M&As environments for the period 2003 to 2018. Despite the limited number of articles that met the sample selection criteria, overall the majority of articles reviewed overwhelmingly showed a positive linkage (relationship) between strategic motives for M&As and subscriber base of mobile telecommunications operators when all extraneous factors such as price remain favorable in the economies where the M&As takes place. Arising from the overall results, the article deepens our understanding of systematic classification of M&A motives by different researchers who use different terminologies. Other than showing how vibrant the mobile telecom industry is in a country, subscriber base has proved an important performance measure in ranking mobile telecom industries world-wide. (ie China, India, Bangladesh, etc). The result of this study offers important practical implications to managers and practitioners in their decision on which strategic motives would achieve faster mobile subscriber growth either by the operator or industry. The applications of subscriber base as a measure of performance allows policy makers, managers and practitioners to assess the suitability of the strategy deployed and then take corrective action when the mobile subscriptions set out to achieve at the beginning, are not met.

## **Limitations and suggestions for further research.**

This article looked at four selected types of strategic motives from a long list of “the typology of motives for M&As”. It is important to note that, adopting any type of performance measurement whether financial or non-financial is subject to criticisms and limitations, as there is no consent among researchers and academics upon the optimal measures of M&As performance. Further, as part of our methodology, not all countries in Africa and Asia would be cited in the examples provided. Future research should be extended to studying other classifications of M&A motives and link them to subscriber base in the mobile telecom industry. Therefore, this article gives an insight to researchers in the field of M&As to employ non-financial indicators of performance such as subscriber base, despite the limitations. The article further suggests that practitioners and researchers should not only use a hybrid post-M&A performance indicators to assess performance but also show the contribution of the strategy employed to have achieved the results. Further empirical studies are needed to link more strategic motives for M&As to the subscriber base which has become a popular non-financial performance indicator of growth of the mobile telecommunication industry in emerging economies.

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