

## **PLATFORMIZATION OF THE AFRICAN INFORMAL RETAIL NETWORK**

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# Can the informal retail network, with its distributed network, transform into a networked retail platform?

## Introduction

This essay will explore whether the 'informal retail network'<sup>1</sup> can transform African marketplaces<sup>2</sup>, with its distributed nature, into a networked platform. The analysis is supported by evidence from Celtel, the first mobile phone operator in West, East and Central Africa, and the second from M-Pesa, the mobile money transfer service, in Kenya.

Celtel leveraged their informal retail network as a low-cost marketing and distribution channel to sell cell-phone talk time *scratch cards* to many people, who previously relied on wired telephone connections (Christensen, 2019). In the case of M-Pesa, they utilised the informal retail network to collect and disburse cash pay-outs to maintain the flow of money between the digital and physical financial systems (Jalakasi, 2019).

Such examples highlight the potential of exponential "market-creating innovations" in the mobile communications industry in Sub-Saharan Africa. In addition, they attribute much of their success to the power of network effects<sup>3</sup> and how the social aspects of the informal retail network is leveraged to diffuse innovation (Christensen, 2019 and Bessant, 2018). Therefore, this review identifies three areas, which will be used to justify the potential for a networked, informal retail platform; namely: digitisation, platformisation and co-operatisation

## Literature Review

### Digitisation<sup>4</sup>

Micro and Small Enterprises<sup>5</sup> (MSEs) have benefited most from connectivity through the efficiencies gained in their day-to-day value chain related activities. The value chain processes most impacted are when mobile phones are used for self-organization; coordination of meetings, selection of new markets and to access information (Eggleston, Jensen, and Zeckhauser 2002). ICT-enabled information flows also provide MSEs with the ability to better monitor and manage key assets and workers (Donner 2004; Esselaar et al. 2007, Mwaura, 2009; Kumar and Welsum, 2013).

There is no evidence suggesting that mobile phones change the structure of the value chain. Furthermore, they do not reduce the number of intermediaries in the chain. The research indicates that for MSEs who use mobile phone they are more likely to be better positioned to coordinate with a wider range of downstream customers, thus maintaining a more dynamic and responsive set of relationships with suppliers leading to more distribution channel options. (Eggleston, Jensen, and Zeckhauser 2002; Jagun, Heeks, and Whalley, 2008).

Clearly, connectivity is considered critical for building and maintaining a social network of "concrete personal relations" in an industry of remote and distributed suppliers and buyers (Burrell and Oreglia, 2017).

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<sup>1</sup> The informal retail network is a complex, widely distributed network of micro, small and medium sized enterprises that supply products and services to each other and consumers. The value chain of the informal retail network comprises of other informal operators, such as informal logistic providers, informal money lenders, etc. According to the United Nations Economic Commission for Africa (UNECA, 2015) approximately 90% of African retail transactions occur through the informal retail sector. (Dennis and Piatti, 2016).

<sup>2</sup> A marketplace is a "complex and dynamic economic network made up of interfirm and intra-firm relationships" (Gereffi, 2014).

<sup>3</sup> Network effects occur when the value of a product or service to your user increases exponentially with the number of other users using the same product or service (Reddy, 2018).

<sup>4</sup> Mobile phone usage, digitisation, ICT and connectivity is used interchangeably in this essay.

<sup>5</sup> This analysis defines an MSE as a non-farm enterprise, formal or informal, with less than 50 employees, including sole proprietorships, part-time businesses, and home-based businesses. The size thresholds draw on Mead and Leidholm (1998), who note that the absolute majority of such enterprises in the developing world are sole proprietorships, and that firms with less than 10 employees substantially outnumber larger enterprises.

Furthermore, it amplifies and accelerates linkages, information and knowledge flows for MSEs (Molla and Heeks 2007, Donner and Escobari, 2010), which are crucial to bolster economic development. The usage of internet tends to be used in limited ways by people who are better educated (James, 2013). Another limiting factor is that applications and platforms do not fit the needs of marginal groups (Van Dijk, 2005). These additional aspects that move beyond access have been seen as crucial (Graham 2014; Kumar 2014).

### **Platformisation<sup>6</sup>**

Graham and Friederici (2018) indicate that digital enterprises in low-income peripheries<sup>7</sup> may be systematically confined to the position of platform users rather than platform creators, and that users may be excluded from reaping the benefits of platforms' generative scaling. Other studies of digital technology platforms have shown how some platforms are able to make other digital innovators create value for them. To do so, establishing partially controlled ecosystems and exclusively owning central interconnection points, such as relationships with users is required. (Amit and Han 2017; Eisenmann, Parker, and Van Alstyne 2006; Yoo, Henfridsson, and Lyytinen 2010).

The literature states that foreign digital enterprises will not find it cost-effective to deal with analog constraints that are common in Sub-Saharan Africa (Graham and Friederici, 2018). For example, while Amazon's cloud offering (AWS) is available throughout most of Africa, its delivery services are not available everywhere on the continent. This is because Amazon's analog infrastructure is globally un-standardized and expensive to create. Digital enterprises in the peripheries therefore, enjoy a competitive advantage because analog infrastructures have to be integrated into digital offerings which the digital enterprises from the Global North, with their supportive analog infrastructures take for granted (Sussan and Acs, 2017).

Moreover, the emerging platform landscape is being denoted as a replacement for pre-existing modes of economic co-ordination. Evidence highlights this as a response to long-term social and economic developments, particularly the diminishing relevance and efficiency of enterprises and markets, two traditional methods for organising human productive activities (Casilli and Posada, 2018).

### **Co-operativism**

Sub-Saharan Africa is witnessing a substantial growth of co-operatives where at least twelve percent of the population are members of a cooperative<sup>8</sup> (ICA, 2017). These co-operatives rely on systems of social capital and control, traditional values of mutuality, reciprocity and solidarity. These traits are common to all African societies, especially those in rural areas and in the informal economy (Schwettmann, 2012). Cooperative ventures in Sub-Saharan Africa are becoming more market-driven. They are responding to changing circumstances beyond their village and community boundaries, and are expanding beyond agriculture into financial and other "non-traditional" sectors<sup>9</sup> (Wanyama, 2016). They are utilising opportunities to tap into economies of scale to improve the productivity and the socio-economic position of their members and wider community (Wanyama, 2016).

Brewer et al. (2005) and Onyima and Nkechi (2017) highlight the importance and culture of shared technology to co-operatives since these technologies form part of the co-operatives resources to be shared amongst the cooperative members. Shared technology solutions include devices, tractors and

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<sup>6</sup> The following definitions offer a technical and business definition of platforms:

- the foundation technology or set of components used beyond a single firm and that brings multiple parties together for a common purpose or to solve a common problem (Gawer and Cusumano, 2002).
- a new kind of firm that owns and manages a computational infrastructure which intermediates between different user-groups and governs their interactions possibilities, driven by network effects (Srniczek, 2017).

<sup>7</sup> Are those that are less developed than the semi-periphery and core countries.

<sup>8</sup> As a very rough estimate (ICA, 2017).

<sup>9</sup> For e.g., housing, consumer, cottage industry and distilleries etc.

communication. Furthermore, the uptake of digital technology and innovation<sup>10</sup> has created a condition where co-operatives and informal businesses access formal opportunities, breaking the barriers between formal and informal businesses. This is leading to a form of hybrid innovation, enabling informal entrepreneurs to optimize formal practices resulting in the emergence of new business models and opportunities (Casey 2012; Menasce, 2014; Onyima and Nkechi, 2017).

## Discussion

Limited research has explored the impact of digitisation, internet connectivity and platformization on MSEs value chains and productivity in Sub-Saharan Africa (Graham, 2015; Murphy and Carmody, 2015). Further, this discussion will dismiss factors such as costs, innovation capacity and education, infrastructure and institutional quality because they have not been studied in depth (Graham and Ojanperä, 2017; Nasiru D. Taura, Elvira Bolat, and Nnamdi O. Madichie, 2019).

While available literature presents no conclusive evidence that digitisation leads to improvements in the MSEs value chains (Graham, Friederici, Ojanperä, et. al., 2017), there are a number of factors which do provide evidence that a networked marketplace is possible and will ultimately lead to generative scaling. The analysis will link the platformization of the informal retail network by drawing on Porter's value chain and system theories, market-creating innovation framework and the incentive theory of motivation<sup>11</sup>.

The evidence, based on Porter's value chain and system framework, indicates that MSEs utilise mobile phones to expedite productivity and increase efficiencies. The mobile phone and increased connectivity contributes to dynamic personal and business relations. Duncombe and Heeks (1999) reiterate that the '*phone supports the reality of informal information systems*' while also helping social and business networks. This insight fits the cases of both Celtel and M-Pesa across Africa.

Moreover, Onyemi and Nkechi (2017) provide evidence that digitisation has created a condition whereby mobile phone usage bridges formal and informal sectors. This dichotomy creates the possibility for market innovation with MSEs motivated to utilising formal structures. The informal retail sector is embedded in social relations between specific individuals and "concrete personal relations and the obligations inherent in them". These relations are based on trust and prevents market actors from any malfeasance (Granovetter, 1985). Therefore, the essence of these relations can also form the value system for a networked and widely distributed marketplace platform.

Clearly, Africa's "spirit of co-operativism" (Duda, 2016) presents a market-creating innovation opportunity for the informal retail sector to transform into a digital platform. Moreover, "*Platform Co-operativism*" (Scholz, 2016) provides a framework for the informal retail network to develop and to exploit generative scaling. Such a marketplace platform addresses two key points: 1) optimising opportunities and 2) democratising a digital value chain system. These factors create the conditions for a network effect and sustainable market-led prosperity.

MSEs can exploit the network effects of the marketplace platform by leveraging the methods used by the super platforms (Tilson, et al., 2010). A set of control points instituted between the MSEs, can channel linkages and users to micro-jobs, income opportunities and entertainment. With the informal retail sector continuing to provide income generating opportunities for those at the base of the pyramid, the marketplace platform, in a similar way to Celtel, will attract micro-workers, promoters and more<sup>12</sup>. Thus providing the motivation for continuous engagement among MSEs and users.

Finally, Graham and Friederici (2018) discuss the difficulties and biases for platform innovation in Sub-Saharan Africa, due to resource limitations. However, emerging modes of coordination within the

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<sup>10</sup> Digital technology is an expansive term which according to FATE (2014), they include services such as mobile phone, internet services, use of websites, social media, mobile money, ATM, online business platforms, online payment platforms, e-commerce arrangements that facilitate exchange, communication and relationships between and among people.

<sup>11</sup> Incentive theories proposed that behaviour is motivated by the "pull" of external goals, such as rewards, money, or recognition. (Hockenbury and Hockenbury, 2003)

<sup>12</sup> For e.g. the allocation of product deliveries between marketplaces for "Gai Gai's"

informal retail sector and experience of integrating hybrid analog-digital solutions in non-retail sectors is the impetus for innovation. As suggested by Christensen, (2019), *“Seeing, what cannot be seen”* and *“as counterintuitive as it may seem, it is possible to develop market-creating innovations amid the non-consumption that exists in many poor countries”*. These were the perspectives taken by M-Pesa and Celtel.

### **Conclusion**

The existing culture of shared values and technologies; the socialness and productive integration bridging the informal and formal retail sectors, and the competitive advantage over analog-digital infrastructures signal that platformisation of the informal retail network is plausible. A networked system that is widely distributed will contribute to the democratisation of a digital value chain among the MSEs at the bottom of the pyramid in Sub-Saharan Africa.

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