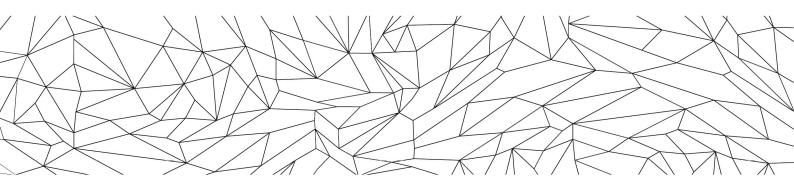
### **SOAS** Department of Economics



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Thereza Balliester Reis Vincent Mugo Kamau

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Department of Economics SOAS University of London Thornhaugh Street, Russell Square, London WC1H 0XG, UK Phone: + 44 (0)20 7898 4730

Fax: 020 7898 4759

E-mail: economics@soas.ac.uk http://www.soas.ac.uk/economics/

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## Are low-income workers financially irresponsible? An analysis of financial and accounting practices in Nairobi

Thereza Balliester Reis<sup>1</sup> Vincent Mugo Kamau<sup>2</sup>

**Abstract:** Studies on financial inclusion place strong emphasis on financial literacy and individual financial responsibility. Over-spending and over-indebtedness are often thought to be consequences of a lack of understanding of prudent budgeting, saving, and investment. Building on the critical accounting and everyday financialisation literature, this study challenges those claims. By interviewing 30 lowincome workers in Nairobi, Kenya, we find that many are highly financially literate and have extensive knowledge on how to save on transaction costs and to select optimal borrowing opportunities. In fact, participants report several new techniques to save on costs, such as splitting transactions on M-Pesa to avoid fees. Yet, as their income is low, those individuals often find themselves indebted over sustained periods, particularly for basic needs such as food and transport. Furthermore, where individuals select costly financial services or are unable to save for the future, these seem to be consequences of structural and income constraints rather than a lack of understanding of accounting practices. Taken together, our article critiques established understandings of financial knowledge by presenting new evidence on everyday financial practices in Nairobi. Our results suggest that financialisation of everyday life has spread to countries beyond the Global North and might have severe consequences for development goals.

**Keywords:** Everyday life financialisation; financial literacy; critical accounting; Kenya

JEL classification: B50, D14, G51, G53.

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<sup>&</sup>lt;sup>1</sup> Department of Economics, SOAS University of London. Russell Square, London WC1H 0XG, UK. Email: tr17@soas.ac.uk

<sup>&</sup>lt;sup>2</sup> Independent researcher. Email: mugovinc@gmail.com

#### 1. Introduction

Financial responsibility at the household level implies that individuals are able to live within their means by saving and investing for the future, avoiding over-indebtedness, and making informed financial decisions in their everyday lives. In the Global South, financially responsible behaviours are considered to be a consequence of financial literacy, which is a key component of financial inclusion programmes (Nelson and Wambugu, 2008; The World Bank, 2009; Baidoo, Boateng and Amponsah, 2018; Byegon, 2020; Pazarbasioglu et al., 2020).

Established research on financial literacy suggests that households should be educated in order to make complex financial decisions. In this way, financial literacy is the ability to process economic and financial information and apply this knowledge to make decisions about savings, short- and long-term debt, pensions and other investments thus improving financial well-being (Jappelli and Padula, 2013; Lusardi and Mitchell, 2014; Klapper, Lusardi and Van Oudheusden, 2015).

In this paper, we build on the critical accounting and everyday financialisation theoretical framework to argue that the focus on financial literacy to understand financially responsible behaviour is inappropriate due to two reasons. First, measurement of financial literacy is overwhelmingly quantitative and focuses on very specific skills, such as calculating interest rates payments, which might not capture other context-specific knowledge on how to use the financial system. Second, it often overlooks the financial constraints that low-income individuals face, in particular insufficient income and lack of social safety nets, which prevents them from behaving according to the standard notion of financial responsibility.

Financial literacy can be classified into five categories (Remund, 2010; Bay, Catasús and Johed, 2014): i) knowledge of financial concepts; ii) ability to communicate such concepts; iii) management of personal finances; iv) taking informed decisions and v) planning for future financial needs. Yet, considerations about the static nature of financial literacy have been raised (Bay, Catasús and Johed, 2014), as well as an Anglo-Saxon bias in accounting research (Willows and October, 2023). Furthermore, there is evidence of a discourse alignment in which financial literacy is considered an essential skill for individuals both in the Global North and Global South despite a lack of evidence of its effectiveness (Franco Augustinis, de Sá Mello da Costa and Franca Barros, 2012; Mader, 2018).

The current financial literacy focus stems from the rise of financialisation of everyday life, where individuals are expected to behave as investors on basic needs such as housing (Smith, Easterlow and Munro, 2004; Smith, 2008) and health care (Cordilha and Lavinas, 2018; Cordilha, 2023). Thus, individuals change their behaviours in order to adapt to an "everyday asset manager" mindset (Hillig, 2019; Agunsoye, 2021), where their daily activities are regulated by mortgages (Pellandini-Simányi, Hammer and Vargha, 2015), insurance (French and Kneale, 2009), credit cards (Langley, 2008), and pension funds' investments (Langley, 2006).

The understanding and accurate application of financial concepts and techniques is necessary for the maintenance of the financialisation process. Despite the limitations of accounting as a tool for financial responsibility (Bay, 2011), financial literacy is still considered a key public policy goal to improve well-being through informed decision-making (Huston, 2010; World Bank, 2013; Fanta and Mutsonziwa, 2021a).

In this article, we build on the critical accounting framework by discussing the limitations of existing financial literacy measurements to imply financial responsibility in a context of economic deprivation and everyday financialisation. We contribute to this literature by presenting a case study of financial and accounting practices in Nairobi. We address two research questions: (i) is a quantitative-driven financial literacy measurement sufficient to capture individuals' knowledge of complex financial systems?; and (ii) what is the relevance of socio-economic constraints for indebtedness and individual financial responsibility?

Through 30 semi-structured interviews that were conducted in May and June 2023 in Nairobi, we investigate the usage of financial services by low-income individuals to understand how urban workers make financial decisions. We also use the FinAccess 2021 dataset (Central Bank of Kenya, 2021) to compare existing quantitative financial literacy measurements and results to ours. Finally, we discuss the process of everyday financialisation in Kenya and its links to an initial behavioural shift of low-income workers with respect to financial responsibility.

Our main findings are threefold. First, innovative accounting methods, such as splitting transactions to avoid fees on M-Pesa, are widely used by low-income workers. We argue that such actions reflect a deep understanding of the financial system despite not being considered a part of financial literacy by the existing literature. Second, we also find that participants would behave "financially irresponsibly" in several ways, in particular related to acquiring multiple loans, but these were not linked to a lack of financial education but rather their everyday economic constraints. Our last finding shows the effects of the Kenyan financialisation process on participant's over-indebtedness and financial behaviour, such as moving away from community-based finance to an individual approach focusing on financial discipline and responsibility.

These findings add a Global South perspective to the critical accounting discussions about individual's responsibilities in a complex financial and accounting systems (Bay, 2011; Gilbert, 2021), as well as the relevance of the social context for financial literacy and accounting practices (Bay, Catasús and Johed, 2014; Willows and October, 2023).

This paper is divided as follows: the next section discusses limitations in quantitative measurements of financial literacy in Kenya and provides information about the local financial system. The third section presents the methodology and data. The fourth section shows the results, whereas the fifth section discusses the aspects of financialisation of everyday life in Kenya. The final section concludes.

#### 2. Financial inclusion and financial literacy in Kenya

Kenya has emerged as an international example of successful financial inclusion in the Global South. From 2006 to 2021, access to formal financial services increased from 26.7% to 83.7%, along with a decline of informal finance from 32.1% to 4.7% (Central Bank of Kenya, 2021). Such expansion has several factors, but it is mostly explained by the surge of mobile money providers, such as M-Pesa. In 2021, 81.4% of Kenyans reported to currently use mobile money (ibid).

In contrast to mobile banking, mobile money is a financial technology (fintech) innovation that allows individuals without internet to transfer money using their telephone numbers, as well as withdraw funds at local agents that are licensed to conduct such transactions (incl. local shops, markets, etc). Over the years, M-Pesa has expanded its financial services from only transactions to offering credit (M-Shwari and KCB M-Pesa) and overdrafts (Fuliza).

Whereby some aspects of the formal financial system have been mirrored from the Global North, Kenya's economy presents further particularities which shape the attitude of low-income Kenyans towards financial services. First, Central Bank interest rates are much higher than those in the Global North, despite recent surges. Whereas the United Kingdom and the United States display a base rate of 5.25% and 5.50%, respectively, Kenya rate was 10.50% by September 2023 (Central Bank of Kenya, 2023). Such structural constraint pushes lending rates up, thus making borrowing in the country more costly (Balliester Reis, 2021a). Second, Kenya has a large informal sector, accounting for 83% of total employment (KNBS, 2023). Informal microenterprises, such as vegetables and milk vendors, are unable to get adequate funding for their business due to inadequate collateral, lending ceilings and high interest rates (International Labour Organization, 2021). Finally, the spread and usage of M-Pesa in detriment of traditional banks has created a monopoly in the financial sector (99% of market share), allowing for higher mark-ups on loans and other service charges (Breckenridge, 2018; Tyce, 2020).

Those factors influence the access to and usage of financial service in the country. The high costs of credit and transactions lead individuals to have to account for those recurring charges on a regular basis – often more than once a day. Informality also shapes the usage of credit, in particular as irregular income streams might need to be offset by regular small loans. Finally, the monopoly of M-Pesa constraints decision-making as individuals are pushed to use their services even if these are costly.

Thus, we argue that such divergent context does not allow for a one-to-one replication of measurement methods that have been conducted in the Global North. As Bay, Catasús and Johed (2014), we argue that literacy should be historically and contextually situated. Therefore, simplistic quantitative measurements of financial literacy might not account for the complexity of the financial knowledge of individuals.

Measurements of debt literacy in the US and UK, for instance, focus on quantitative analysis such as in Lusardi and Tufano (2015, p. 335), where a question about compound interest rates was phrased as:

"Suppose you owe \$1,000 on your credit card and the interest rate you are charged is 20% per year compounded annually. If you did not pay anything off, at this interest rate, how many years would it take for the amount you owe to double?"

To reach the correct answer, it's expected that participants would have knowledge of the 'rule of 72' heuristic to select "less than 5 years" (the precise answer would be 3.6 years). Despite being cumbersome to understand, such a type of question would not fit the Kenyan context, where loans are very short-term (sometimes daily), and borrowers can be prevented from borrowing from any other providers if they do not repay their loans within a month (e.g. M-Shwari and Fuliza).

Other standard questions to evaluate financial literacy focus on the preference of paying the same amount in instalments over 12 months or the total at the end of 12 months. By selecting the first option, the conclusion is that individuals might display present-bias preferences and might have a lack of self-control, thus preventing them to acquire interest rates over the 12 months in a savings account, and then conclude the payment (Meier and Sprenger, 2010; Lusardi and Tufano, 2015). In turn, as we will show in Section 4, low-income Kenyans have little to no savings, and need to cover basic expenses through credit, preventing them from investing over 12 months in order to take advantage of high interest rates.

Studies that have analysed financial literacy in Kenya have mostly followed such key measurements, such as interest rates (Central Bank of Kenya, 2021; Kimaiyo, 2021; Adam and Upadhyaya, 2022), besides inflation (Shibia and Kieyah, 2016; Schützeichel, 2019; Fanta and Mutsonziwa, 2021a) and risk diversification (Koomson et al., 2023). Overall, they find that financial literacy needs to be enhanced in the country as a tool to prevent over-indebtedness and improve financial well-being. At the same time, these studies acknowledge that FL has small but positive effect on savings (Kimaiyo, 2021), formal financial access (Shibia and Kieyah, 2016; Kodongo, 2018) and poverty (Koomson et al., 2023). At the same time, Adam and Upadhyaya (2022) find that debt literacy among the youth in Kenya is somewhat high (62% correct answers on interest rates and 86% on late repayment charges). Yet, 54% of the sample indicated reducing food consumption to pay off their digital loans.

In light of these existing studies focused on Kenya, we propose that financial literacy should capture other dimensions of financial and accounting knowledge that are context-specific. Moreover, we challenge the hypothesis that financial literacy is a strong driver of well-being, and that individual financial responsibility should be determined by it.

#### 3. Methodology

We collected the data through semi-structured interviews which included questions about different types of financial services (accounts, savings, insurance, and credit) and focused on the individual experiences of participants in utilising those services. The questionnaire was established intending to understand the relationship between socio-economic constraints and financial inclusion policies. Interviews took place in Nairobi, Kenya, between May and June 2023. Participants were selected in two ways. Some were approached by the research team when working in a sector of interest (e.g., security guards, motorbike rider, store attendants), whereas others were selected through a snowballing sampling process. In the latter case, participants would be recruited by former participants based on our income eligibility criteria of around or below Kshs.30,000 per month (GBP 165)<sup>0</sup>.

Interviews were conducted in English, Swahili and sometimes a mix of both languages (as well as Sheng, a Nairobi-based mix of local languages and English). They have been transcribed and translated by the authors. Where possible, we maintained a close translation from Swahili/Sheng to English. However, some expressions such as "uko zile za like siwezi make" literally means "I am in a fix and cannot make it". However, we translate it into "you find yourself in a limbo and cannot make it", as a direct translation would be somewhat unclear.

The questionnaire was first developed in April 2023, but suffered some changes after three pilot interviews were conducted. It was translated to Kiswahili to ease interview sessions with respondents who were not comfortable speaking in English or could not broadly capture their experienced in English alone. In the end, we interviewed 30 individuals using the final questionnaire. A summary of participants' socio-economic information can be found in Table 1.

Overall, we achieved a gender and occupation-balanced sample, but had an over-representation of rural migrants. As the capital, Nairobi receives migrants from rural areas that often find work on low-paid services activities. Whereas we were able to interview many formally employed workers (e.g. security guards, supermarket staff, cleaners), the majority of participants worked in the informal economy (housekeeping, sign writers, motorbike riders). We classify the later generally as self-employed, including casual workers, informal workers and micro-businesspeople (e.g. onion and fish traders).

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<sup>&</sup>lt;sup>0</sup> Mid-market exchange rate in August 2023.

**Table 1: Socio-economic characteristics of participants** 

Number of interviews	30	
Gender	15	Female
	15	Male
Age	7	18-25 years old
	13	26-35 years old
	10	36-60 years old
Place of origin	9	Nairobi
	21	Rural areas
Employment status	11	Employed
	17	Self-employed
	2	Unemployed
Average income by employment (Kshs.)	20,636	Employed
	17,573	Self-employed

Note: as income was self-reported and some participants refused to answer, average income should be taken with a grain of salt. One of the participants also refused to answer their age, but we estimate they are between 26-35.

#### 4. Results

We divide this section into two in order to answer our research questions. First, we discuss our results regarding the measurement of financial literacy. For that, we comment on some existing findings about financial literacy by using quantitative information from the FinAccess 2021. We also discuss some of the context-specific characteristics of lending practice in Kenya to provide a background to the qualitative research. Second, we highlight how participants juggle finance during their day-to-day in the light of socio-economic constraints expressed by them. We contrast our findings with the existing literature which focuses on the individual responsibility to explain indebtedness issues.

#### 4.1 Measurement of financial literacy

As highlighted in Sections 2 and 3, existing measurements of financial literacy are often quantitative-focused and might not grasp the complexity of financial systems. The Central Bank of Kenya has a contextualised survey using local experiences, including M-Pesa, to account for financial literacy. Whereas results provide us with a

general picture of financial and accounting understanding, it still does not comprehend all examples of everyday financial practices in Nairobi.

The first financial literacy question from the FinAccess 2021 refers to interest rate calculation, where individuals are asked to calculate 10% yearly interest rate of Kshs.1,000 (Central Bank of Kenya, 2021). Table 2 shows us that, in Nairobi, 68.16% of interviewees were able to calculate interest rates payments correctly.

Table 2: Knowledge about interest rates payments, Nairobi (FinAccess 2021)

	Frequency	Percentage
KSh 1,000 (correct)	426	68.16
Not KSh 1,000 (incorrect)	92	14.72
Don't know	107	17.12

Whereas understanding interest rates and percentages are helpful for financial decisions, such measurement is based on dominant understandings of financial literacy that focus on Global North financial systems. In turn, in Kenya, digital loans have a much shorter maturity (usually 30 days), ranging from 4% with Tala to 7.5% with M-Shwari (plus a 1.5% excise duty). Furthermore, loans in overdraft format, like from Fuliza, do not charge interest rates, but daily fees depending on the used amount. For instance, borrowing Kshs.100 incurs a charge of Kshs.3 per day, besides a 1% access fee (Safaricom, 2023a). Thus, measuring financial literacy in such a context might be more accurate if questions about maturity and daily costs were considered.

The second question from the FinAccess 2021 asked participants to read an SMS as it would come from a mobile money provider and point to the correct transaction cost – Kshs.10 in the experiment. Table 3 indicates that 88.64% of participants were able to correctly identify the cost of transaction, whereas a minority could not identify it, nor read or was visually impaired.

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<sup>&</sup>lt;sup>0</sup> Sometimes, M-Shwari offers lower rates to early repayments (e.g. 6% if repaid within 10 days).

**Table 3: Answers about transaction costs, Nairobi (FinAccess 2021)** 

requency	
requericy	Percentage
554	88.64
12	6.72
L6	2.56
2	0.32
L1	1.76
5 1 L	54 2 6

While more context-specific, the measurement does not necessarily grasp the knowledge of individual's accounting practices. In turn, it seems like a measurement of general literacy as the question focuses on identifying the correct text message information.

In sum, the measurements from the FinAccess survey are helpful to highlight some initial perception of financial literacy in the country. Moreover, the results suggest that Nairobi participants are able to understand basic financial concepts that are used in their day-to-day transactions. However, our qualitative research uncovered other practices through which individuals manage their funds that are not currently grasped by the existing survey.

First, we noticed that several participants would avoid paying transaction fees by "splitting the transaction", i.e., divide the total value into smaller amounts as fees is only incurred after Kshs. 100 when using M-Pesa. Unlike banks in the Global North, mobile money transactions incur charges. Due to M-Pesa's monopoly power (Breckenridge, 2018; Park, 2020), the firm is able to charge relatively high tariffs per transactions and withdrawals. As of September 2023, transferring between Kshs. 101-500 incurs a Kshs. 7, Kshs. 501-1000 a Kshs.13, up to Kshs.108 for transactions above Kshs. 50,000 (Safaricom, 2023b). As we notice, transactions are relatively higher for small amounts, especially if they occur several times a day. In fact, Johnson (2016) had already discussed that in poorer communities, such charges are considered to be quite significant.

In our research, P29, a mother of 3 who lives in a single room in the outskirts of Nairobi, stated that she was only able to repay a debt to a friend by splitting the transaction:

"As for me, I love doing that [splitting]. Sometimes you may not have the transaction fee. So, someone tells you to send to them that 100 shillings then another 'till it's enough."

However, despite being a widespread practice, participants sometimes did not fully benefit from such an approach. For instance, P30, said that:

"if you transact that 4,000, they [M-Pesa] deduct a lot. But if you transact maybe partially maybe divide into 1,500 1,500 then send 1,000 it's actually cheaper".

Whereas this particular calculation is not exactly correct (here, P30 would pay Kshs.59 instead of Kshs.57), had he done four transaction of Kshs.1,000, he would only pay Kshs.52, thus saving Kshs.5.

Second, participants were worried about the Credit Reference Bureau (CRB) as, if loans go unpaid, they can be listed and prevented from accessing further credit. For example P7, a 46-year-old security guard, makes usage of his overdraft facility at the Co-operative Bank monthly. For him, this is cheaper than borrowing from M-Shwari. He also uses his social networks to prevent being banned from the credit system:

"Sometimes [I borrow money to repay a loan], like M-Shwari [...]. So I would be on the loan, but I don't want to be listed on the CRB. That is why I better borrow from someone to pay [M-Shwari]."

Third, several participants claimed to save on a regular basis through their mobile money account on M-Shwari. Participants were less concerned about earned interest rates of 6.3% per year but were thinking of upcoming possibilities of borrowing. By saving on their M-Shwari account, their available credit limit increases, allowing them to borrow more, if necessary, in the future.

According to the FinAccess 2021, those earning Kshs.30,000 and below in Nairobi were more likely to have their savings on a mobile money account (Table 4). Yet, saving directly with a digital loan provider displays lower numbers. As we notice below, saving with a mobile money account is more common among those earning Kshs.3,001 to 7,500. In turn, saving on a digital loan provider platform, such as M-Shwari or KCB M-Pesa, is more frequent among those earning above Kshs.7,501.

These results suggest that there is financial awareness of the benefits of saving on a mobile money loan provider platform, in particular due to the possibility of higher loans in the future.

Finally, despite the focus on saving to increase future loans values, we found that Kenyans' relationship to the traditional banking system is quite different from that in developed countries. Whereas savings in the Global North are often stored in savings accounts to accrue interest rates, savings at banks are considered to be a barrier to access the funds. As individuals seem not to trust ATMs, not to use debit cards or not to have immediate access to a bank branch, formal savings accounts are seen as a way of saving that can hinder withdrawal in case of an emergency. P30, a supermarket employee, mentioned that:

	Observations	Mobile money account (e.g. M-Pesa)	Mobile money loan provider (e.g. M-Shwari)
< 3,000	71	64%	28%
3,001 – 7,500	81	80%	37%
7,501 – 15,000	158	77%	46%
15,001 – 30,000	109	75%	52%
30,001 - 70,000	53	76%	57%

Note: there are only 8 participants above the Kshs.70,000 threshold, so we remove them from the analysis as results are not statistically significant. The total sample size is 609, although 129 participants did not report their income, so they are also left out of this analysis.

"I save in the bank most of the time. Yeah, because if you look at M-Pesa you can access it easily but believe me when you have savings in the bank it gives you that discipline to save. Reason being when I have money in M-Shwari, maybe you have some money but when you want to withdraw, [the maximum time] you cannot access until it's two days. So, you find it doesn't give you the discipline but when you have a bank you cannot transact unless you go to the bank and you cannot withdraw, you must send to another account so that you can withdraw. So, you find that process can give you that discipline".

Such experiences indicate two general financial behaviours. First, low-income workers in Nairobi are aware of accounting practices that allows them to save on transaction as well as to avoid being listed on CRB, suggesting that financial literacy is present. Second, that participants did in fact think about future financial goals – either preventing them from using the funds or increasing their borrowing limits in the long run. However, as savings is very limited among low-income workers, many reporting not having any savings as "there is no money to save" (P18).

Thus, we believe that measurements of financial literacy in Kenya should be context specific and should be broader to account for innovative practices. Overall, based on the Kenyan financial system, less importance should be given to interest rates payments and other accounting practices should be considered. In particular, splitting transactions into smaller values in order to avoid fees and saving to increase borrowing limits are practices that have not been observed nor discussed in the literature, but are key aspects of Kenyan's financial knowledge.

#### 4.2 Socio-economic constraints

The financial and accounting practices of Nairobi dwellers is also highly dependent on their socio-economic situation. By interviewing individuals that earned up to Kshs.30,000 a month, we noticed that work, family, community, health and education are the main purpose but also drivers of how financial decisions are made. As in Guérin (2014), we find that "innovative" financial inclusion policies repeat the

experience of microcredit from other developing countries, in which low-income individuals use those funds for food and health needs, but also other day-to-day costs such as transport.

Overall, the majority of participants stated that they were often short of cash and had multiple formal and informal debt obligations. The reasons for such a situation were not related to lack of financial literacy, lack of self-control, overall positive attitude towards credit nor gambling as often described as the sources of over-indebtedness in Kenya (Wamalwa, Rugiri and Lauler, 2019; Byegon, 2020; Simiyu, 2020; Adam and Upadhyaya, 2022). Instead, debts were acquired to afford everyday needs such as food, children's school fees, sending money to kin in the rural community and transport (mostly to and from work).

These limitations were reported by both formal and informal workers in our sample. However, we noticed a significant contrast between these two groups. Whereas formal workers were able to plan on a longer term – at least on a monthly basis, informal workers' financial and accounting practices had a daily time horizon. Furthermore, formal workers are able to acquire bank loans with longer maturity, with lower charges and higher values, in contrast to informal ones who are restrained into borrowing from mobile money providers that charge considerably high daily fees and have an average maturity of 30 days. Such factors must be considered when discussing financial responsibility, as Kenya's informal sector represents 83% of total employment and such structural constraint has an impact on the access to and usage of financial services (International Labour Organization, 2021).

For formal workers, such as P7, salary advances (i.e. overdrafts) from the bank they receive their payments through, were commonly reported. For him,

"sometimes I use overdraft. Sometimes even to buy food at home because I can just take overdraft for one month, maybe even 5,000 and then I pay at the end of the month. Then I send the money home [Nyeri County] to buy food".

In turn, informal workers were unable to withdraw high values from banks, so would recur to short-term debt from Fuliza or longer-term loans from M-Shwari. The former is seen as a solution to immediate situations that require low funds. For instance, P26 says that "Fuliza is just for emergency, buying food in the house or transport". Meanwhile, M-Shwari might take around two days to be approved and the limit is usually higher than Fuliza. Thus, participants preferred to use it for longer-term plans, such as paying for children's school fees. Such wait, however, can cause a delay on children being accepted back at school (after parents have failed to make a payment), as reported P15.

We also found interesting intersections between informality and internal migration. One of the key claimed successes of M-Pesa is to allow cheaper and trustworthy remittances from the urban to rural areas (Johnson, 2016; Burns, 2018). In fact, we did notice that participants would send domestic remittances through M-Pesa but, at the same time, the rural-urban connection would also lead to indebtedness. The main drivers of such debt were borrowing to send funds for food to their community and to afford transport to visit their villages for important events, such as Christmas and weddings.

As an example, P14 moved from the countryside to Nairobi to "hustle". Her food-related small business collapsed after Covid, and she became a self-employed cleaner earning about Ksh10,000 a month. She had different loans, with the main

one being from M-Shwari to cover the transport to go back to her village in Western Kenya for a family funeral. For the 8-hour coach trip would cost Ksh3,500 return – more than a third of her income. She reported that:

"Maybe you want to go somewhere, and you don't have transport. Or you want to buy something, and the money is not enough [...] maybe you want to buy something in the house and the month is not [over, it is] like 20th and maybe you don't have sugar, it's finished, maybe flour is finished – so you have to borrow [...] to boost it up".

Such usage of debt for everyday needs can be considered a success of the implementation of such financial tools, as they are supporting individuals to smooth consumption over time. However, our reports show that Fuliza, M-Shwari and overdrafts are not only used in temporary emergency situations, such as a loss of job or family illness, but on a regular basis to cover the minimum for survival.

As put by P24 who has different sources of credit, including Fuliza and M-Shwari, she is pushed to take these loans:

"because of destitution. When it comes to a point where I am at the very bottom and I am here in town without fare. Where I come from, yes, they have some flour but there are no vegetables and there is no milk. My kids have to leave early in the morning for school with at least 300 shillings for fare. So, I must borrow that money so it can help me".

Considering both the measurement and socio-economic constraints in the Nairobian context, it is difficult to argue that low-income workers are indebted due to financial irresponsibility. Instead, we notice that many individuals had wide knowledge of accounting techniques and financial practices to prevent over-spending on financial services and improve their financial opportunities in the future. However, due to their socio-economic barriers, many find themselves with several small loans to afford basic daily necessities. Such findings suggest that indebtedness issues in Kenya are less associated to individual responsibilities, but in turn to a general process of financialisation in Kenya's economy.

#### 5. Financialisation of everyday life in Kenya

Whereas the process of financialisation of everyday life in the Global North is characterised by a neoliberal shift of financial risks from the state or employer to individuals (Langley, 2006), in the Global South such experience differs due to historically more precarious social safety nets and large informal labour market. Although the processes are somewhat different, the results are similar, as individuals become solely responsible for their financial well-being and long-term security.

Everyday financialisation in Kenya has been promoted by the government through the support of digital mobile transactions and loans, in particular through M-Pesa (Tyce, 2020; Braden, 2022). In our research, we notice that participants worried about money regularly (some said the whole day) and that financial transactions and credit played a key role on their behaviour as financially responsible individuals. However, learning about new financial products and accounting techniques, such as saving on their M-Shwari account or splitting transactions to avoid fees, could allow a bit of savings but was not enough to afford daily needs for the household.

Those results and observations suggest that low-income workers in Nairobi are not, generally, financially irresponsible. Yet, there is widespread evidence of over-indebtedness that could in turn be attributed to the process of financialisation. Whereas digital credit can support consumption smoothing, there is an extensive usage of such loan services as individuals struggle to maintain their basic living conditions.

Furthermore, we also notice the impact that formal debt had on participants – in particular towards an individual financial responsibility. As explained by P30 in section 4.1 of this article, saving on a bank account gives him the discipline not to spend much (although he also often uses short-term debt to afford household rent and food, besides transport). Such behavioural changes have been noted in the accounting literature focusing on the Global North (Chiapello, 2017; Dyball and Rooney, 2019; Agunsoye, 2021; Gilbert, 2021) and seems to be present in Nairobi as well, where neoliberal practices have spread.

A consequence of such individualised responsibility is the considerable shift with respect to community relations. With the rise in formal credit, informal financial practices have reduced among our participants. First, whereas participants from rural areas were more likely to use informal finance in their villages, such as Chamas, they were less likely to do so in Nairobi as they "don't trust them" in the city (P4). Such lack of strong social ties then feeds back to the regular usage of mobile money.

Second, participants often preferred digital credit to asking for friends or family to hide their precarious financial situation from others. P5 prefers to borrow from Equity bank where he had an account instead of Chamas as "Equity will keep your secrets. [...] When you take from Chama everybody can know you took our money, but with Equity it's you and the Equity members". These changes seem to also allow participants to borrow more, as there is less constraint on the source of loan and prevents potential deteriorating relationship among their social networks.

Besides shifting the financial risk from the government to individuals, the increase in financialisation raises the economic constraints of low-income individuals in the long-term, as well as potentially intensifying income inequality. In fact, whereas some studies affirm that mobile money is able to reduce poverty and inequality in Kenya (Suri and Jack, 2016; Gathogo, 2021; Koomson *et al.*, 2023), we find difficult to explain through which mechanisms this would happen. Whereas we noticed that consumption does seem to increase in the short-term due to small loans, such loans pile up and seem to have a negative effect in the long run.

As an example, participants claimed to have suffered from hunger more often in the past, but several stated to use Fuliza to buy food when they no longer had money. This could be considered a positive outcome of financial inclusion policies but, at the same time, figures show that between 16% to 54% of Kenyans have reported to reduce on food consumption to repay digital loans (Kaffenberger and Totolo, 2018; Adam and Upadhyaya, 2022). Therefore, the relationship between loans and food consumption appears to be more complex than currently discussed.

Our study shows that, despite having different historical process, Kenya is also undergoing a process of financialisation of everyday life which has been reported in several Global North countries (e.g. Langley, 2006; Agunsoye, 2021; Cordilha, 2023). However, financial and accounting practices are somewhat different from

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<sup>&</sup>lt;sup>0</sup> Community-based savings and credit providers.

those in the Global North, as the financial system is dominated by mobile money providers (overwhelmingly by M-Pesa), and it has a strong emphasis on short-term debt in detriment of long-term plans with respect to savings, pensions and investments. Such process, ultimately, weakens social relationships and the consolidates the notion of the "financially responsible" individual.

#### 6. Conclusions

This article discussed whether the current quantitative-driven financial literacy approach is sufficient to capture individual's knowledge of complex financial systems and if socio-economic constraints play a role on individuals' indebtedness and financial responsibility. To answer those, we conducted 30 semi-structured interviews in Nairobi with low-income workers (both formal and informal) and compared our results to existing financial literacy measurements by the FinAccess database.

The study has three main findings. First, we observed that participants used innovative financial and accounting techniques in their everyday life. For instance, to surpass the costs of basic financial transactions using M-Pesa, participants would remit several small values that would not incur a fee. Such practices are not often accounted by the financial literacy literature in Kenya (e.g. Fanta and Mutsonziwa, 2021b; Kimaiyo, 2021; Koomson *et al.*, 2023), despite their widespread use and impact on the access to and usage of financial services.

Second, we were unable to confirm existing hypotheses that over-indebtedness in Nairobi seems to be related to lax financial and accounting individual behaviour. Whereas the current literature focuses on lack of financial literacy, self-control or gambling as sources of extensive indebtedness issues in Kenya (e.g. Wamalwa, Rugiri and Lauler, 2019; Byegon, 2020; Simiyu, 2020), we found that everyday socio-economic constraints such as lack of income, irregular income streams from informal work and the need to support family members in their local villages seem to be stronger determinants of over-indebtedness among low-income workers in Nairobi.

Third, we discussed the process of financialisation of everyday life in Kenya, which has been already reported in many Global North countries (e.g. Langley, 2006; Agunsoye, 2021; Cordilha, 2023). By analysing financial and accounting practices in Nairobi, we perceived a shift from a community-based strategy to an individualistic approach. Such development also seemed to be related to certain behaviour patterns including the need for discipline for savings and repayments – otherwise participants might be excluded from the formal financial system.

Overall, we argue that low-income workers in Kenya are highly financially literate, either by measuring it with restrictive quantitative-based accounting techniques or through in-depth qualitative research. However, due to their limited socio-economic situation, these individuals might pursue less optimal strategies, such as acquiring multiple small loans to afford basic needs.

Taken together, this article adds to current discussions about individual financial responsibility within a financialisation context by discussing the financial and accounting practices of low-income workers in Nairobi. Whereas we do not find strong evidence of lack of financial literacy or responsibility, participants still showed signs of over-indebtedness. This finding suggests that other factors might be more

relevant, in particular socio-economic constraints. Nonetheless, as our case study focuses only on one particular area, further research could be conducted to validate if such process is similar in other Global South countries.

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