Theoretical Aspects of the Short-Term Consumer Credit Interest Rate Model

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Abstract

The main objective is to explore the short term consumer credit high interest rate problem and the infectiveness of current interventions such as regulation while developing an alternative model. Therefore, the paper develops a theoretical alternative model which addresses the major interest rate cost drivers subject to stakeholder engagement through suitability, acceptability and feasibility assessment. This is because previous studies have arguably unsuccessfully attempted to solve the matter through policy regulation albeit without satisfactory stakeholder engagement hence the shortcomings. The rationale of the new theoretical Interest Rate Model suggest that the alternative model informed by key stakeholder engagement would be more appropriate to address the adverse effects of high-cost short term consumer credit than regulation.

Keywords
Short-term Consumer Credit, High Interest Rates, Policy Regulatory ineffectiveness

1. Introduction
Short-term consumer credit has come under scrutiny for its association with high interest rates and exploitative practices, which have contributed to rising household debt and financial distress among consumers (Malone and Skiba 2020; OECD 2019; Schwartz and Robinson 2018; Servon 2017; Skiba 2012). Despite this, the demand for short-term credit continues to grow, leading to concerns over potential increases in related negative impacts (Servon 2017; Bhutta, Skiba and Tobacman 2015; Stegman 2007). As such, various stakeholders have sought solutions to address these issues, with regulation being the most frequently proposed approach. However, the history of attempts to regulate short-term credit, such as payday loans, has been unsuccessful since the 1990s (Servon 2017).

This study posits that the inefficacy of previous efforts to address the shortcomings of short-term consumer credit can be attributed to a fundamental flaw in the short-term consumer credit interest rate model. This model fails to incorporate the factors that drive the cost of interest, thereby perpetuating high interest rates and related negative effects (Miller 2013; Ackerman 1999; Arrow and Debreu 1954). As a result, regulation, although a necessary component of intervention, may not be sufficient to address the underlying issues in the interest rate model (GRZ 2021; Malone and Skiba 2020; He and Tian 2020; Bernier and Plouffe 2019).

2. Literature Review
2.1 Interest Rates
Interest rate refers to the fee charged by a lender to a borrower for the use of money, expressed as a percentage of the loan's principal (Belongia and Ireland 2014; Mashkin 2013; Gorder 2009; Trainer 1987; Fisher 1930).

2.2. Interest Rate Model

The interest rate model, which serves as the foundation for contemporary models, outlines the cost drivers that impact the interest rate. These cost drivers encompass costs of funds, overhead expenses such as administrative, outreach, and processing costs, as well as a risk premium, profits, and taxes (Miller 2013; Beck and Fuchs 2004; Demirguc-Kunt and Huizinga 1999).

Profit: Compensation for service provider (lender) and it is possible for a lender to have a very small profit margin and yet still have a high interest rate subject to its setup and how well the other components are managed.
Risk perceptions: Contingency for defaults or Non-Performing Loans (NPLs)
Overhead costs: Processing, Outreach and General administration costs.
Cost of Funds: The cost lenders pay to borrow the funds they then lend out.
Taxation: Provision for the influence from explicit and implicit taxation
The constituents of an interest rate are as depicted in Figure 1, below:

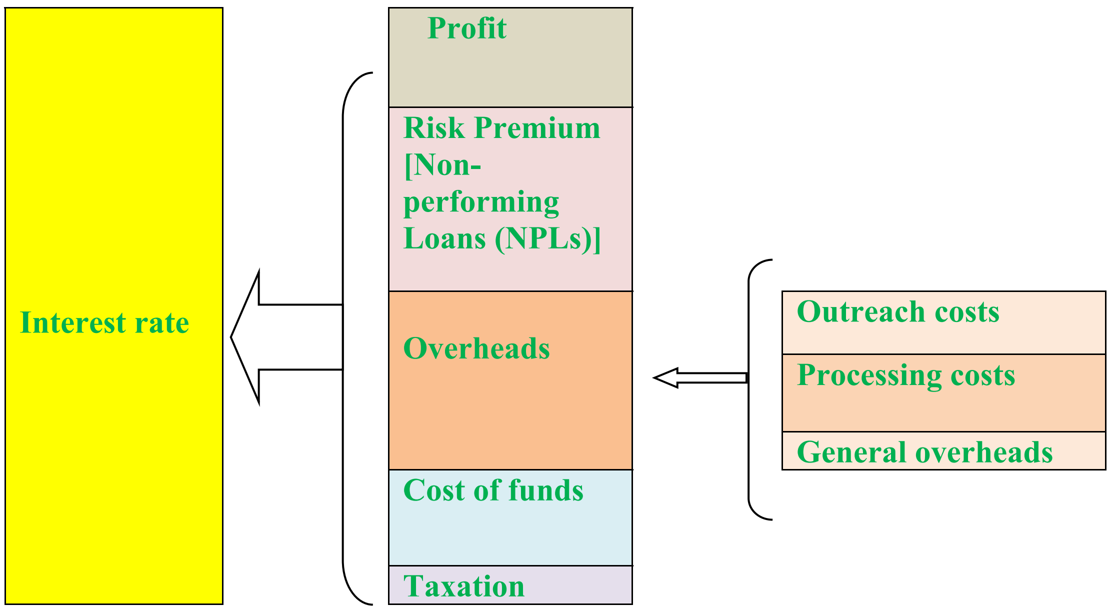

Figure 1. Breakdown of interest rate

2.3 Short term consumer Credit

The emergence of the formal short term credit industry, also known as "payday loans" or its various forms such as cash advance loans or payday advance loans, began in the early 1990s and saw tremendous growth, reaching almost USD$50 billion from the late 1990s to the mid-2000s (Servon 2017; Bhutta, Skiba and Tobacman 2015; Stegman 2007). This type of consumer credit is characterized by the provision of small, unsecured, short-term personal loans that are based on an individual's near-term income, such as the current monthly income (Schwartz & Robinson, 2018). The main driver of demand for short term consumer credit is its ability to provide households with short term liquidity in a flexible manner (Islam and Simpson 2017). However, concerns about the potentially exploitative nature of these loans due to high interest rates and consequences for borrowers who are unable to repay have continued to escalate (Schwartz and Robinson 2018). As noted by Schwartz and Robinson, these borrowers may be trapped in a cycle of debt due to loan rollovers, repeated borrowing from payday lenders, or default, leading to further charges and financial distress.

The rapid growth of payday lending has generated concern among policymakers, academics, and other stakeholders due to the potential for increasing problems (Servon 2017). The growth of the short term consumer credit industry is expected to persist due to economic conditions that are favorable to its growth, including reduced availability of consumer credit, changes in the banking industry, and long-term trends such as declining wages and increased income volatility (Servon 2017). These developments are particularly evident in developed countries, while their impact is more complex in developing countries such as Zambia.

2.4 Short Term Consumer Credit in Zambian

Between 2007 and 2016, commercial banks in Zambia experienced a 642% increase in lending to households. This rise in lending corresponded with a 200% increase in the number of borrowers, which grew from 88,098 in 2007 to 263,447 in 2016 (Bank of Zambia 2007, 2016). This shift in the financial services landscape in Zambia can be seen as a potential reflection of similar developments in other developing countries.

The increase in household lending created a niche market for clients seeking short-term financing to service their long-term loans with commercial banks. This development can be traced back to the period between 2007 and 2016, when a large number of households obtained long-term loans from commercial banks. Many of these borrowers were first-time loan recipients who were inexperienced in effectively utilizing long-term loans. Additionally, the loans were largely invested in non-income-generating ventures.

Two main types of borrowers emerged during this time, those who obtained loans to buy land for real estate projects, and those who purchased consumables such as household goods or vehicles. The first group was typically unable to complete their projects with the loan amount, leading to a slow progression of the project with residual income. The second group experienced a reduction in net income, due to maintenance or fuel costs for vehicles, or the lack of income from household goods. A poor savings culture and underdeveloped insurance industry in Zambia further exacerbated the ability of these borrowers to manage unforeseen short-term financial needs. However, despite the potential for new opportunities in the Zambian financial services market, commercial banks and larger financial institutions were reluctant to serve this niche market. This was due to the high risk associated with these borrowers and the cost of reducing that risk outweighed the benefits for investors in these institutions. As a result, smaller financial institutions offering short-term loans such as payday loans emerged, but at high interest rates to compensate for the risk. (Bank of Zambia 2007 and 2016)

3. Review of Similar Studies and Critique

Despite numerous studies conducted on short-term consumer credit facilities, there is a lack of research focused on resolving the high-cost nature of modern short-term consumer credit from its core - the interest rate model of these facilities. Previous studies have only pointed out the issue or proposed more regulatory responses through supervision and interest rate caps as a solution (Fekrazad 2020; OECD 2019; Yin 2018; Bhutta, Skiba and Tobacman 2015; Skiba and Tabacman 2011).

4. Lessons Learnt

Previous studies on the high cost of short-term consumer credit facilities have mainly focused on highlighting the problem and advocating for more policy and regulatory responses through supervision and interest rate caps as the solution (Fekrazad 2020; OECD 2019; Yin 2018; Bhutta, Skiba and Tobacman, 2015; Skiba and Tabacam 2011). However, this approach has proven to not fully address the root cause of the high cost, which is the principal design or interest rate model of the short-term credit facilities.

Regulation can bring about some positive developments (OECD 2019; Bernier and Plouffe 2019), but relying solely on regulation as a solution may result in unintended consequences. For example, lenders may modify their loans to avoid regulations on interest rates, loan lengths, loan sizes, and repayment procedures by allowing loans to roll over (Malone and Skiba 2020; He and Tian 2020). Additionally, regulation faces implementation challenges based on jurisdiction and the complex nature of the drivers of short-term consumer debt risk, such as the general economic context, life events, and behavioral biases (OECD 2019; Li, Mumford and Tobias 2012).

5. New Interest Rate Model for Short Term Consumer Credit

5.1 Hypothetical appropriate Model other than policy regulatory Measures

A prospective solution to the high-cost issue of short-term consumer credit could be the creation of a trust-based virtual community where key stakeholders like employers, individuals, and merchants could transact as illustrated in Figure 2 below. This community would hypothetically leverage the short-term nature of consumer credit to address asymmetry of information and remove traditional financial institutions by providing loans based on goods and services instead of cash. To achieve this, the community would have to address the trust constraint that leads to the involvement of high-cost third-party lenders. By establishing trust within the community, consumers would be able to access goods and services without having to rely on high-interest cash loans (Li, Wang, Liu and Hu, 2020; Isaeva, Gruenewald and Saunders 2020; Morgan and Hunt 1994).

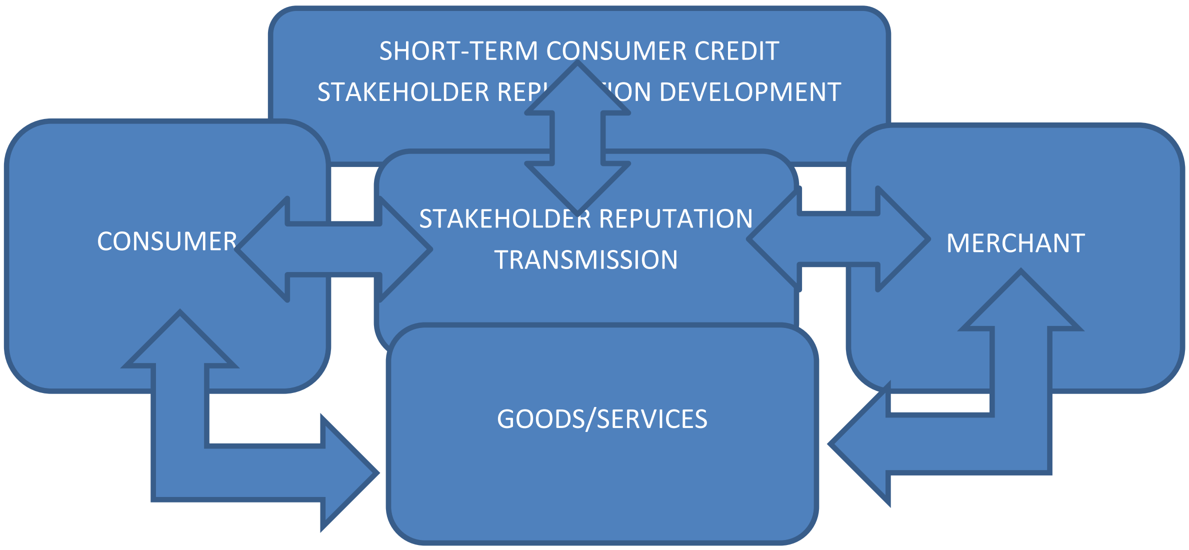

Figure 2. Short-Term Consumer Credit Low Cost Interest Rate Model

5.2 Lack of Trust Phenomenon

In order to fully grasp the reasoning behind the proposed Interest Rate Model, it is crucial to understand the underlying dynamics of the phenomenon of Lack of Trust. The credit industry has reached a state of low or no trust between consumers and merchants due to two interrelated phenomena known as asymmetry of information, namely moral hazard and adverse selection (Varian 2000; Eaton 1999; Akerlof 1970).

Moral hazard refers to the tendency for one party to exaggerate or withhold critical information in a transaction to the disadvantage of the other party (Akerlof 1970; Varian 2000; Eaton 1999). When this behavior persists in multiple transactions within a market, it creates a general perception of moral hazard and influences stakeholders' decision making through the phenomenon of adverse selection (Barbosa and Marcal 2011).

Adverse selection refers to a situation in which the likelihood of consumers exhibiting moral hazard traits is high, leading merchants to either stop offering credit facilities altogether or significantly reduce them. This phenomenon is best demonstrated by Akerlof's (1970) classic example using the automobile industry. In this scenario, information asymmetry arises when a car owner is aware of all the qualities of the car being sold, while potential buyers are not. As a result, buyers are unable to determine the quality of the car and end up paying average prices based on their perception of the proportion of good and bad cars in the market. This leads to a market failure and exemplifies the adverse selection phenomenon (Varian 2000). In view of this, merchants evaluate the risk of the impact of moral hazard based on the perceived average level of moral hazard in their respective markets, hence the decision to not offer credit facilities to most consumers due to the high perceived risk. This ultimately results in the Lack of Trust phenomenon.

5.3 The Interest Rate Conundrum

An interest rate is made up of various components, each with its own cost associated with it (Miller 2013). Consequently, reducing the interest rate would involve reducing the cost drivers. However, due to the high-risk profile of payday loan consumers, it is challenging or even impossible to reduce costs to a level that would make these loans low-cost enough to address the negative impacts of short-term consumer credit. Hence, the solution to the problem should involve parties who do not require interest in the traditional sense. This brings us back to the issue of trust between consumers and merchants, which is a critical constraint. The primary goal is to address the lack of trust between these parties, which would then allow us to tackle the final challenge of ensuring that the trust is established and, more importantly, maintained in the face of moral hazard and adverse selection, which are the main causes of this widespread lack of trust.

5.4. Trust and Reputation

Developing and maintaining trust can center around establishing a reputation for good business practices to counter moral hazard and avoid the impact of adverse selection. However, building trust in commerce is challenging as it is often controlled by individual market players, leading to a lack of information sharing and insufficient scale to combat adverse selection. This results in a lack of transferability of trust from one company to another, allowing moral hazard to persist and reducing the ability to punish fraudulent actors. In light of this, the proposed interest rate model aims to address the issue by creating a trust-based platform or community for information sharing, based on the general equilibrium assumptions of perfect information and complete markets.

5.5 Theoretical framework of appropriate Model for short term consumer credit

The framework advances consumers directly borrowing goods/services from Merchants and paying back with no interest. This section theorizes how the model would achieve the forgoing without disadvantaging any key stakeholder by removing the conventional interest rate cost drivers.

1. Cost of funds
   Lenders usually use funds provided by third parties who expect a return covering their opportunity cost and this is ultimately paid by the borrower through the interest rate. Therefore, by not giving out cash based loans this cost driver is eliminated. This is possible because consumers of short term consumer credit do not essentially need money but what they can do with the money such as paying for goods and services. Therefore, the model facilitates for consumers to have direct access to the merchant's goods/services hence avoiding high cost cash. Meanwhile, the merchant who facilitates this is already compensated through the market price of the respective good/service hence feasible not to demand for more as long as default risk is managed through the virtual platform.

2. Profit
   This is compensation to the lenders for facilitating the whole loan arrangement and bearing the risk involved in the transaction. However, through this prospective Interest rate model, there shall be no funds to be facilitated owning to the direct Consumer – Merchant relationship through the virtual community hence no further compensation would be required.

3. Overheads
   This is composed of outreach, processing and general overhead costs. However, due to the none cash based loans made possible through the proposed model aided by a virtual market, all these aspects are by default removed.

4. Non-Performing Loans (NPL)
   The concept of NPL is premised on the premise of defaults and borrowers compensating the lenders for this risk. However, since the interest rate model under consideration manages this risk through the virtual community with near perfect information and complete market phenomenon, this at best arbitrary cost is no longer necessary hence would no longer exist.

5.6 Informal sector and why this is very Important

Sustaining the proposed model is crucial and depends largely on the extent of its impact on the population, considering adverse selection is a market-wide issue. This is why the informal sector is included in the Reputation Collateral theory. The virtual community platform created by the model allows individuals not in formal employment to trade directly with merchants and build their "Reputational Collateral".

Reputational collateral

The proposed model intends to tackle this issue by providing a decentralized platform for sharing transaction information, thereby creating a more comprehensive record of a consumer's good practices. This information sharing system tracks consumers' transactions, allowing other stakeholders to benefit from their trustworthy behavior, while also discouraging bad practices that could jeopardize future transactions. Unlike the traditional credit bureau model, which only provides centralized information to a select few stakeholders, the information sharing component of the proposed model aims to have a wider reach and influence, effectively addressing the market-wide phenomenon of adverse selection. The information, in this case, the "reputational collateral" created by past good business practices, is a valuable intangible asset that can benefit consumers over time. The success of this system will depend on its ability to influence a significant portion of the population, including those in the informal sector who could trade directly with merchants using their "reputational collateral".

6. Conceptual Framework

The rationale of this framework is to establish a virtual community where the issue of mistrust is resolved by promoting good practices through reputation, aided by the perfect information and complete market phenomenon. This community is created with the aim of fostering an environment with consistent stakeholder behavior to implement the appropriate Interest Rate Model for short-term consumer credit. To achieve this, the study employed the Theory of Personal Reputation in Organizations as a conceptual framework.

The Theory of Personal Reputation revolves around the concept that reputation is the key independent variable, with its various theories, including Social comparison, Self-regulation, Signaling, Social information processing, contagion, and communication theories acting as intervening or mediating variables. The primary goal of the study is to establish a virtual community where members can engage in predictable transactions, facilitated by the reputation of ethical business practices, perfect information, and complete market assumptions. The study argues that creating such a community would effectively address the issue of mistrust, a common challenge in many markets, especially in developing countries, by leveraging the constituents of the personal reputation theory, as depicted in Figure 3 below.

Conceptual Framework

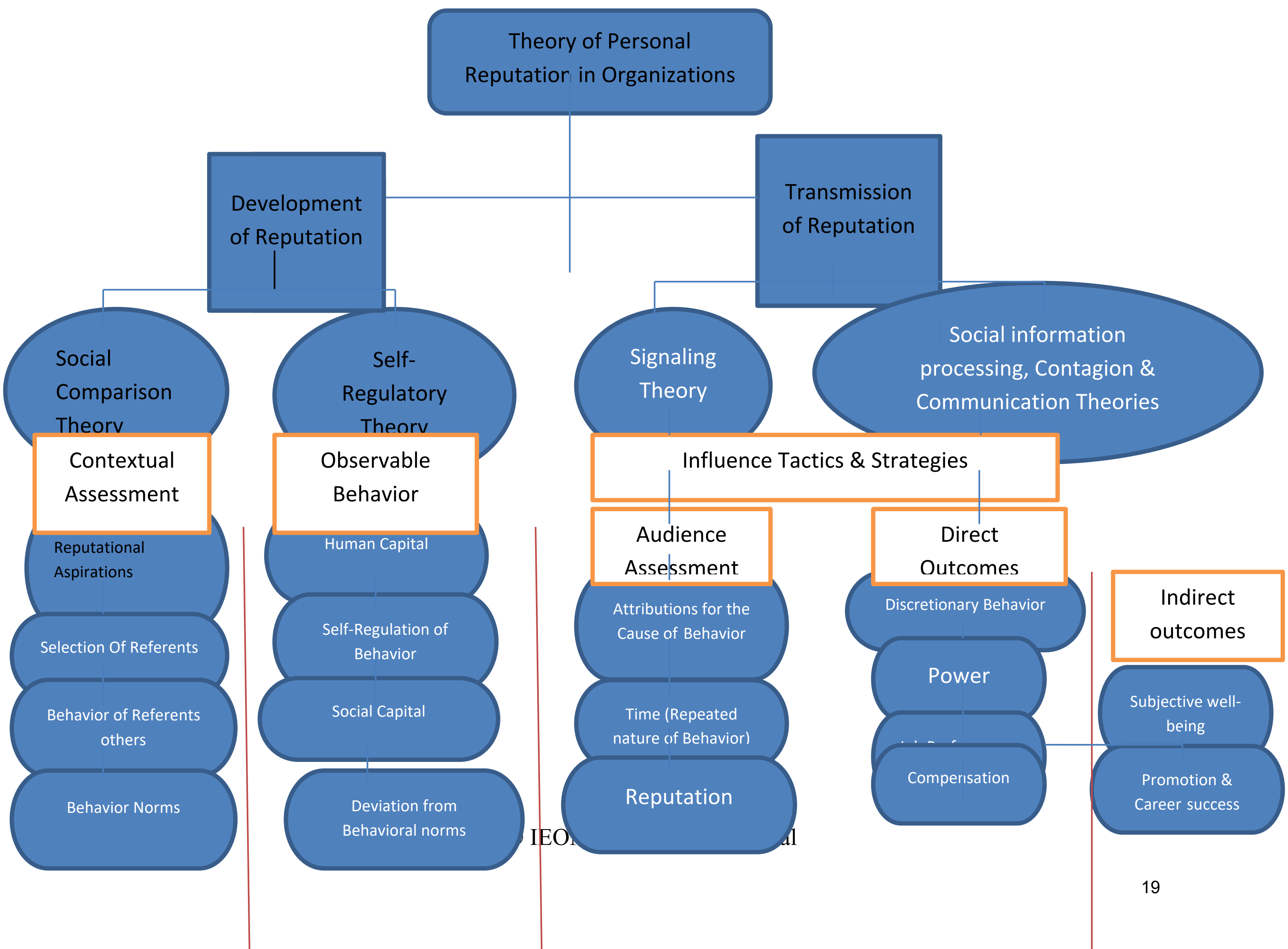

Figure 3. Theory of Personal Reputation in Organizations

In view of the foregoing, Figure.3 breaks down the theory of personal reputation in organizations (Ferris, Zinko, Blass and Laird 2007; Ferris et al. 2003) which provides the basis for the creation of a virtual community that is focused on predictable stakeholder behavior. This is achieved by tracking transactions and sharing information with other stakeholders as a basis for benefitting from good practices or avoiding bad practices that may jeopardize future transactions.

The theory of personal reputation in organizations states that reputation is a valuable intangible asset that can be used as collateral over time (Chu 2002; Miller 2000). The norm in most markets, especially in developing countries, is that despite there being trustworthy consumers, very few benefit from their good business practices as there is usually no basis upon which to track their good consumer/business practices. Consequently, each time they transact in the market place, they are treated just like any other potential defaulter and end up not benefiting from their good consumer practices.

This model is designed to change this by providing a platform through which those not in formal employment could trade directly with merchants until they build "Reputational Collateral" (Chu 2002; Miller 2000). This information sharing is developed from the credit bureau concept but with modifications as not much value is gotten from credit bureaus as they usually provide centralized information to a select few stakeholders. When those who have access to such information are considered relative to the entire marketplace, they turn out not to be spread wide enough to adequately address a market-wide phenomenon such as adverse selection (Ferris, Zinko, Blass and Laird 2007; Ferris et al. 2003).

The model adopted for the creation of this virtual community is premised on the General Equilibrium assumptions of perfect information and complete markets (Ferris et al. 2007; Ferris et al. 2003). The aim is to achieve a low-cost interest rate model for short-term consumer credit. In view of this, the conceptual framework lays out the development and sustainability of an environment with predictable stakeholder behavior to actualize the rationale of the appropriate Interest Rate Model for short-term consumer credit. The study will track reputation and moral hazard as the independent and dependent variables respectively, and the constituent theories of reputation such as social comparison, self-regulation, signaling, social information processing, contagion, and communication theories as intervening or mediating variables.

7. Conclusion

The main objective was to explore the short term consumer credit high interest rate problem and the infectiveness of current interventions such as regulation while developing an alternative model. The study developed an alternative model which addresses the major interest rate cost drivers anchored on stakeholder engagement through suitability, acceptability and feasibility assessment. This was because previous studies had arguably unsuccessfully attempted to solve the matter through policy regulation albeit without satisfactory stakeholder engagement hence the shortcomings. The rationale of the resultant Interest Rate Model suggest that the alternative model would be suitable, feasible and acceptable to key stakeholders. Therefore, the study contributes to relevant existing theory by advancing a proactive possible solution to the short term consumer interest rate conundrum. The theoretical model basically advocates for market driven solutions such as addressing the interest rate cost drivers to market problems unlike policy regulatory measures which are based on the inadequate reductionist methodology.

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