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Information Asymmetry and Social Transfer Policies in Nigeria

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Abstract
Information asymmetry arises when economic agents are not all equally informed. In the policy-making process, economic agents involved consist of policy-makers and policy-targeted people, which are drawn from government and her citizens, respectively. The success and efficiency of policy efforts to redistribute income through social transfer schemes, in form of improving the lives of the poor and the unemployed, is conditional upon how informed these agents are. The paper uses a theoretical approach hinged on a policy-making framework to analyse why policies intended to bridge the welfare gap between the poor and the rich, as well as the gap between the employed and the unemployed, might be difficult to achieve and its outcome undermined unless all are well informed. This paper specifically predicts, under conditions of information asymmetry, the possible outcome of stipends proposal for the unemployed and the poor and suggests ways to make the intentions of the policy work better, using a better channel designed in a more reliable direction. Finally, we propose that this economy needs to go into a data-based economic environment where essential informational statuses of all are readily available to policy-making agencies for optimal income redistribution policies and efficient social transfer schemes.
Keywords: Information Asymmetry, Income Redistribution, Adverse Selection, Economic Agents, Efficiency

1.0 Introduction

One of the major macroeconomic objectives every economy tries to pursue is to raise welfare of the poor and reduce income inequality among its populace. This extends to bridging the welfare disparity between the employed and the unemployed. Other macroeconomic objectives include but not limited to: economic growth, full employment, price stability, balance of payment stability and exchange rate stability (Lipsey, 1965); (Lipsey & Chrystal, 1989). Developmental economists are of the impression that reducing inequality and poverty and promoting equity are very important macroeconomic objectives particularly in the context of developing economies.

Over the years, Nigerian governments have put one income redistribution policy (in our paper, we mean social transfer scheme henceforth) or the other in place with a view to improving welfare of the unemployed. An unemployed person has a high tendency to be poor as his income is restricted to social transfers from relatives, government, and other economic environments (unearned income). Such social transfers include family support, government unemployment benefits, government employability schemes, graduate internship schemes, scholarships, loans, and so on. During the 2011-2015 regime

(Jonathan-Led Regime), Subsidy Reinvestment and Empowerment Programme (SURE-P) was put in place to engage some of the unemployed and improve their welfare. In the current regime (Buhari-led), one of the electioneering campaigns was to pay unemployed graduates #5,000 monthly stipends and this has so far been operational. Other welfare-enhancing schemes are being rolled out, most notably Tradermoni Scheme, Conditional Cash Transfer Scheme, Youth Investment Fund Scheme and many others. The success and efficiency of these transfer schemes owes many explanations to the distribution of information between the policy-makers and the target group.

Questions arise as to what criteria the government would use for identifying people considered qualified to benefit from the schemes. From economic point of view, more relevant questions should bother on: The appropriateness of the value of the benefit, given economic realities of the cost of living in the country, criteria for identifying people for whom the benefits are designed, decision as regards if the benefits are for all the unemployed and the poor or part of the whole, means of preventing the already employed from the benefits and finally the implications that the policy has for policy outcome.

Our paper specifically focuses on the role information plays in the implementation of social transfer and welfare-enhancing schemes, using relevant theories hinged on policy-making framework. It therefore concentrates on how best to make the policy work so that it benefits only those for whom it is intended (the poor and the unemployed). How can this be achieved if policy- makers are not aware of the statuses of all people so that such is factored in their identification of target people and distribution of benefits. The central argument is that when policy-makers and policy-targeted people are not equally informed about government's social transfer schemes, the outcome tends towards being socially inefficient. This stems from the fact that some criteria-qualified people may not be aware of the transfer schemes due to cost of obtaining information while the government too may goof in choosing the right people due to poor social status database. Consequently, information asymmetry arises which leads to inefficient outcomes.

In the developed world, governments keep and have records of all and update them such that none of the actively engaged people has access to receiving unemployment benefits and social transfers. This implies that there is efficiency in income distributional policies in those countries, so that the employed compensate the unemployed, just as they make the rich subsidize for the poor (cross-subsidization). Essentially, people on high 'ladders' subsidy those on low 'ladders'. This is the essence of any optimal social transfer schemes that are intended to reduce welfare gaps in society.

2.0 Literature review

Quite a lot of research works have been carried out on how to redistribute income to better the lives of the poor and the unemployed. Prazad (2008) found that there is a negative correlation between government spending on social transfer and income inequality. Using data generated for about 64 countries, he found that nations that spend more on social transfer schemes tend to have lower income inequality and vice-versa. David (2008) holds that fiscal policy has tendency to reduce income inequality in people of diverging welfares. According to Chuk, Davoodi and Gupta (2000), developing economies generally have not been able to use proceeds from tax and transfer policies effectively to redistribute income.

Stiglitz (2008) holds that efficiency in any redistribution scheme is conditional upon informational disclosures which could have profound effects on every economic policy. Similar to this position is Beblavy, Marcony and Maseli (2015) with the view that feasibility of unemployment scheme depends both on source-funding for the scheme and having reliable information to execute its distribution process. They conclude that each nation with such policies must not have challenges on status data of people for identification of target group, since financing the scheme is what, they believe, should constitute the major issue in the scheme.

Despite the benefits that unemployment benefits and welfare-enhancing schemes may have on the target, there are problems when we cannot differentiate the employed from the unemployed, especially in informal settings. For example, Stancheva (2014) argues that an adverse selection problem arises when policy-makers have difficulty differentiating statuses among people (workers, consumers, clients). This manifests in issues of compensation and distribution. He concludes that a strong redistributive goal demands that the government has to address the problem of adverse selection in the process of implementing such a policy. Siegelman (2004) posits that rational courts, policy-makers, and legal academics discuss adverse selection as a major challenge in the design of policies. He later concludes that with policy-makers being less-informed, the worst scenario in which none of the targeted people benefits from the scheme might even result. Addressing this problem in policy-making process allows that the designed policies get to the targeted people and outcome becomes efficient.

Of what use is unemployment benefit scheme. Moffitt (2014) holds that by raising the income of low-income (or zero-income) people, unemployment benefits and cash transfer schemes can move them out of poverty. However, this depends on the value of the benefit as it compares with the minimum living cost observed in the economy under consideration.

3.0 Theoretical and methodological framework

The objectives of this study can be eased with the adoption of the game-theoretic approach and the adverse selection problem approach, both of which derive from and relate to the theory of information asymmetry. These approaches demonstrate possible emerging outcomes in policy making and strategic decisions in the presence of incomplete information, a scenario that characterizes most political, economic and business transactions in the real world.

3.1 Theoretical analysis

Two relevant theoretical frameworks are employed in this analysis:

i. Game-Theoretic Approach

ii. Adverse Selection Approach

3.1.1 Game-theoretic approach

Three features characterize a game in economic theory: players, strategies, and pay-offs. These agents are in the context of this paper, identified as:

Players: Government
Youths (employed, unemployed)

Strategies: Government: Social transfer payments
Youths: Social Transfer Collection

Pay-offs: The pay-offs derive from social welfare function which aims at attaining efficiency. Hence, the pay-offs are efficiency, inefficiency.

Pay-off Matrix Table

Table 1: Implementation of Social Transfer Schemes: Interactions of Economic Agents

Interactions of information status of key economic agents in welfare-enhancing schemes		Youths (Benefit-seekers)	
		Informed	Uninformed
Government(Benefit-giver)	Informed	Efficiency	Inefficiency
	Uninformed	Inefficiency	Inefficiency

Source: Prepared by the Authors

From the above table, outcome of the policy is unified because of the adoption of social welfare function which recognizes only what is best for the society as a whole, thereby suppressing the interests of individual agents-government and citizens. Hence, the policy can yield for the society either efficient outcome or inefficient outcome. The best outcome for the society (efficiency) demands that policy-makers have access to reliable information about policy- targeted people so that the policy is well designed, well channeled to the right people, reflects current economic reality and is sustainable.

Tree Diagram Illustration

Harsanyi (2008) posits that economic agents sometimes interact with each agent having incomplete information about the other, a situation that generates failure at some points and which does not guarantee policy success at all times. He further states that each tries to benefit from the other's restricted information. In this approach, we should note that decisions among players here are made sequentially. This is the case when the second player's decision has to naturally follow from the first player's act while each player tries to be ration in its decision-making process (Kreps & Wilson, 2008). The policy here originates first from the policy-maker so that the first player is the government. The youth then act in response to government policy, thereby making the policy-targeted people second player. The resulting outcomes are said to be from a sub-game equilibrium**.**

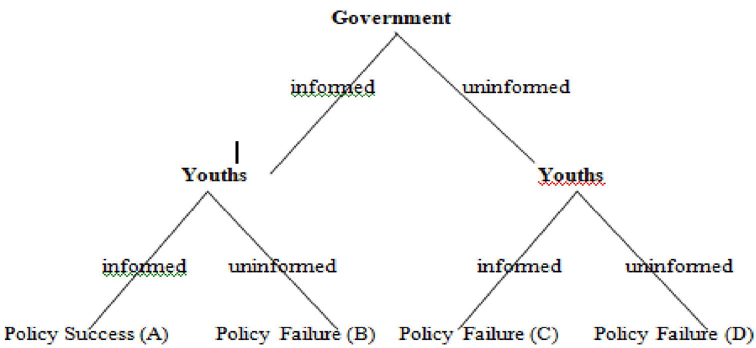

Figure 1: Sequential order of status-bound strategies by players and the resulting pay-offs. Source: Prepared by the Authors

From Figure 1 above, four outcomes are possible:

Pay-off A: Government and youths are both informed but in different contexts. The government is informed because of being aware of youths that are unemployed and people that are poor due to access to reliable data made available to him by the appropriate agencies. Youths are informed because they are aware of this social transfer policy. Hence, social transfer benefit gets to people for which it was designed, so that their welfare improves, not minding the magnitude of the improvement. Given that the unemployed youths are informed, they seek the benefit and get it. So, from the policy-makers' perspective, there is policy success while the welfare of the unemployed youths and those of the poor also rises, making them better off. This represents Pareto optimality in the mind of Vilfredo Pareto, the father of welfare economics.

Pay-off B: The government is informed because it has reliable data giving statuses of all youths classified into employed and unemployed youths and the entire people into the poor and the rich. Some of the unemployed youth and the poor do not have the information that government has rolled out a policy aimed at improving their welfare. Consequently, these sets of people failed to apply, got excluded from the schemes and so the policy does not yield the optimal result. Sub-optimal outcome results, hence policy failure.

Pay-off C: Government has no record of youths' employment statuses and people's wealth statuses**.** Many of the previously employed and some of the rich seek the benefit and get it. Hence, the benefit of the social transfer policy might spill outside of the target (even though, some of the unemployed and the poor will still benefit from the scheme). The government loses on some of her targets, leading to policy failure while some of the beneficiaries though employed and/or rich, become better off.

Pay-off D: The government has no record of real data showing statuses of youths and youths in general. We assume that some of the unemployed youths for which the policy was designed are not informed. Hence, government records policy failure while some of the unemployed youth who are not informed lose out and become worse-off. One explanation why some of the unemployed youths and the poor might not be informed is due to the cost of obtaining information since information comes with associated marginal costs and benefits. The cost-benefit principle, as related to information, demands that one should seek information as long as the marginal benefits are at least as great as the marginal costs of obtaining it. Even when the marginal benefits are higher than the marginal costs, some of the unemployed and the poor may not afford the cost. When the government is uninformed, the already employed and some of the rich, who are informed benefit from the laxity because they can afford to spend to get the needed information. This includes having to network to get the benefit, in the presence of institutional flaws.

Information Issue: Any Need?

For the policy-making process to work efficiently there is a need for complete informational access. Government has the role of collecting, managing, keeping, and updating social data of her subjects. In the developed economies such as obtainable in Europe and the US, governments collect taxes from the employed and pay unemployment benefits to the unemployed with disruption resulting there from. This is made possible because of reliable social data of citizen's statuses that existing agencies make available to the government. The moment a previously unemployed person gets employed, the benefit stops and he starts to pay taxes to compensate another unemployed man out there. The same scenario plays out between the rich and the poor in terms of cross-subsidization. Hence, efficiency manifests in their income redistribution (social transfer) policies.

Information as a Good

At government policy level, data collection and its update is purely a public good. Except, for this reason, no firm or individual will be interested in collecting, updating, and keeping records of all citizens in a country. It is uneconomical and of no rational use. But for the government, it's the heart of policy effectiveness and efficiency.

The government collects information on social data through some of its agencies such as the National Population Commission (NPC), National Bureau of Statistics (NBS), and Ministry of Youths and Information. The work of NPC in particular needs not be restricted to conduct of census, a 10-year interval exercise while its workers are simply attending to those activities of keeping births, deaths, marriages, and divorce.

Youths and Information

When there is laxity in policy generated by information lag and lax, some people are bound to benefit from such. It should be understood that only the informed gain and it doesn't matter whether the informed are already employed or unemployed, rich or poor. In some cases, the employed get information by affording the cost while the unemployed get it through public media or spill-over. In other cases, the unemployed get it through by-stander effects.

3.1.2 Adverse Selection Approach

This theory concentrates on what happens to outcomes of strategic decisions and policies in which two contracting parties (policy-makers and policy-targeted people) are not equally informed. Youths are aware of their own status as individuals but the policy-maker (government) does not know. Hence, policy-makers may fall into the difficulty of selecting the criteria-unqualified people from the whole in social transfer policies unless there are reliable social data provided by appropriate government agencies.

Suppose the government proposes a social benefit scheme to pay each unemployed graduate a given monthly stipend, which will cost the government a sum of P naira each month. Suppose all youths in the country are X in number comprising the unemployed and the employed, with original monthly income of X_A and X_B respectively. Given the table below:

Table 2: Youths Classification in Welfare-Enhancing Policies

Group	Categorization	Initial Income
A	Unemployed Youths	X_A
B	Employed Youths	X_B

Source: Prepared by the Authors

Members of each group (A, B) know their statuses. However, government does not know who belongs to Group A and who belongs to Group B. Hence, government faces challenges selecting the people for which the policy was intended (unemployed people). That is, some people in Group B who apply for the benefit might also receive the benefit, leading to the problem of adverse selection, emanating from the problem of asymmetry of information.

We can articulate a simple model from the above but with a number of assumptions:

Assumptions

i. The government cannot differentiate members of Group A from members of Group B

ii. There is an equal number of people in the two groups
iii. The value of the benefit, to the government on monthly basis, is P
iv. In the absence of social register data on statuses, the benefit becomes shared according to the number in each group so that : Group A gets: P/2 and Group B gets P/2
v. In all, government spends the sum P, the targeted group gets P/2, lower than intended, P, while the by-standers (people not intended in the policy) get P/2 and could even get more depending on the population difference.

Outcome of the Policy

i. Based on the assumptions made earlier made, the government still spends as earlier budgeted, so that the value of the benefit still stays at P/2 + P2 = P
ii. However, only P/2 gets to the unemployed. The other P/2 is in the hands of the already employed (and the rich, as the case may be) that benefit as by-standers from government information laxity and lag.
iii. From point (ii) above, the income gap between the employed and the unemployed remains the same (in aggregate terms).
iv. The income gap could even become wider depending on the population of members of each group so that the policy intended to redistribute income leads to widening welfare gaps.
v. The policy, to some extent, misses some of the targeted group because the government overlooks the role information plays in the policy-making process. Information–gathering process should be a sustainable and on-going strategy that must be invested in so that policies yield desired results on the target.

4.0 Discussion of findings

From the analysis of the study above, we have succeeded in establishing why the availability of social data of youth statuses matters for optimal social transfer schemes and income-redistribution policies. In the absence of such information, there is a high tendency that the policymakers could be in the dark as to whether the policy efforts get to those for which it was originally designed.

On the part of policy-makers, the success of the policy relies heavily not only on the design of the social transfer package but also on the quality of information available to them, essentially in terms of the status information of the youths. Unless this happens, policy failure awaits such policies as the intended impacts might become defeated in no time. This manifests itself in form of little or no improvement in indices of poverty, inequality and income redistribution.

While the impacts of policy variables are intended to be transferred from the policy-makers to a targeted section of the youths, some issues matter as they relate to the identification of the section of youths that policy-makers have in mind (the unemployed). We demonstrated in our analysis and found that the unemployed youths (or the poor, as the case may be) who are not informed might not benefit from any social transfer scheme. Also, the already employed who are informed might benefit from such schemes on the condition that the government lacks youth status classification data. This may shed more explanations on why the welfare intervention policies are yet to yield optimally desired results in Nigeria.

5.0 Recommendations

The followings are recommended from the analysis presented in this study: Policy-makers need to concentrate not only on policy design but also on policy implementation. It is often said that policy implementation is not as easy as policy planning process.

Governments in developing nations need to invest in data collection of statuses of all and sundry and its sustainability in the country so that the economy maintains and operates in data-based economic environment. This matters for optimal income redistribution policies, one of which was the SURE-P under the Nigerian 2011-2015 regime and the proposed #5000 payment to unemployed graduates in the current regime. Policy relevance extends to other ongoing welfare-enhancing schemes in the interest of efficiency

Institutions need to be strengthened further to ensure compliance and enforcements on issues relating to declaring status to maintain reliable data of all. Information matters for efficiency in policy making. Since the subject matter on social transfer scheme is welfare, institutions need to be strengthened and put in place to impose severe penalties where the wrong status is declared.

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