

Corruption in African Democratic Developing Countries and ICT: Apathy, Anxiety and Patriotism

Hossana Twinomurinzi

twinoth@up.ac.za

Kow Bondzie Gharthey-Tagoe

kgharteytagoe@gmail.com

Department of Informatics, University of Pretoria

ABSTRACT: *As citizens in democratic developing countries (DDC) put their governments under pressure to deal with corruption, Information and Communications Technology (ICT) is increasingly being considered as an important strategic resource. Although the use of ICT in DDCs is not new, its use by citizens as a means to fight against corruption is clearly a challenge. This paper reflects upon corruption through the theoretical lens of the Principal-Agent Theory whereby the citizen in a democratic country is the principal and the government is the agent recruited by the principal to perform a task. The research adopted a qualitative-interpretive approach using an online survey to understand how a select group of principal, actively online citizens, perceives of corruption and their perceived role of ICT as a tool to participate with government in dealing with corruption. The actively online citizens who responded were from the African DDCs of Benin, Botswana, Egypt, Ghana, Kenya, Nigeria, South Africa, Tanzania, Uganda, Zambia and Zimbabwe. The findings reveal that actively online citizens from the DDCs have a very strong patriotic willingness to participate with government. They are however concerned about their personal security and the presence of powerful minority groups that control government. The paper shows that contrary to the principal agent theory which suggests that the main role of ICT is in allowing access to information, the key to actively online citizens dealing with corruption using ICT is their ability to leverage mobile platforms to unseat the powerful minority groups. The paper also reveals that the threshold in DDCs to use ICT to unseat the powerful groups is probably not close especially because citizens in DDCs do not believe it is worth the effort to fight corruption. Although many articles have appeared on the use of ICT to fight corruption, few have extended the discussion to understanding the citizen perspective from DDCs in participating to deal with corruption.*

Keywords: Corruption, E-government, Developing Countries,

INTRODUCTION

Public-sector corruption is a phenomenon in which entrusted public power is abused for private gain largely taking the form of bribery, nepotism, fraud and embezzlement. There are two types of corruption in the public sector, political corruption and bureaucratic corruption. Political corruption occurs when political coalitions and elites influence the formulation of national laws, policies and regulations to serve their interest. For example vote-rigging, registration of unqualified, dead or non-existent voters, buying and selling of votes, and the alteration or outright falsification of election results. Bureaucratic corruption is when

government bureaucrats alter the enforcement of laws, policies and regulations to their advantage (Mbaku, 1996). Some of the easier ways to identify that bureaucratic corruption has taken place are false or incomplete entries in accounts and/records, faked reconciliations, inferior items substituting genuine items and missing crucial documents (Jones, 2004).

There is a strong negative correlation between corruption and the development status of a country. The lower the development status, the higher the prevalence of corruption (Haque and Kneller, 2005). The motivation for corruption includes personal financial gain, cultural values which are tolerant of corruption, peer pressure, disgruntlement and malice (Jones, 2004). For corruption to occur, there must be intent on the side of the perpetrator and an opportunity (Jones, 2004). The perpetrators of corruption are typically entrepreneurs, individuals and groups seeking a favorable decision in exchange for bribes (Mbaku, 1996). Government officials can similarly be perpetrators with intent in seeking for a bribe in exchange for a favorable decision. The opportunity for corruption is created in an environment where government officials enjoy a monopoly of power and when their discretionary power is not properly checked (Klitgaard, 1987). Typically, there is a monopoly of power when one official controls a public good or service and is hence able to create artificial shortages. Having more than one official is designed to limit the monopoly of power. Discretionary power refers to the ability of an official to legally exercise power without the approval of other officials. Rules put into place to curb discretionary power are problematic when they are rigid and unrealistic, as such creating an environment for non-compliance and misinterpretation (Tanzi, 1998).

It is difficult to manage the intent of those who perpetrate corruption. The intent of corruption is rooted in the cultural, political, and economic circumstances of those involved in it (Zhang and Zhang, 2009). The emphasis is therefore placed on limiting the environments that nourish the opportunities for corruption (Jones, 2004). Transparency has been shown to be the best approach to limiting the environment for corruption (Bertot *et al.*, 2010).

A classical theory used to emphasize transparency as an antidote is the principal-agent theory (Zhang and Zhang, 2009). The principal-agent theory (PAT) emerged from two independent yet similar theories of agency by Stephen Ross and Barry Mitnick (Mitnick, 2006). Ross adopted an economic perspective to explain agency as a problem of incentives whereby incentives are used to induce agents do what the principle intends (Ross, 1973). Mitnick on the other hand considered agency from an institutional perspective as how institutions evolve around agency to deal with the imperfections that arise between what an agent does and what the principal intends (Mitnick, 1973). The principal-agent theory is especially used in law, economics and the public-sector to understand the relationship between agents and principals especially in contracts (Lane, 2005, Elgström and Smith, 2006, Dobson and Stokes, 2008).

The essential premise of the principal-agent theory from the perspective of a democracy is that citizens are principals and governments are agents who work for the principals. Since citizens are the principals who pay taxes and vote they can expect that the government will act on their intentions. As such, citizens are entitled to know how the government operates and what it delivers so that it can be measured against what the citizens intended. However, the complexity of government means that government officials as agents always know more than the principal, in this case the citizen. And the greater the disparity of knowledge between the principal and agent, known more commonly as information asymmetry, the greater the risk of corruption (Smith and Bertozzi, 1998).

In terms of the principal-agent theory, it is on the basis of reducing information asymmetry that ICT can play a central role in the fight against corruption (Figure 1). As part of information asymmetry, ICT can further provide the ability to make transparent the contact between government officials and citizens, which contact if not made transparent, contributes to a fertile environment and greater opportunity for corruption.

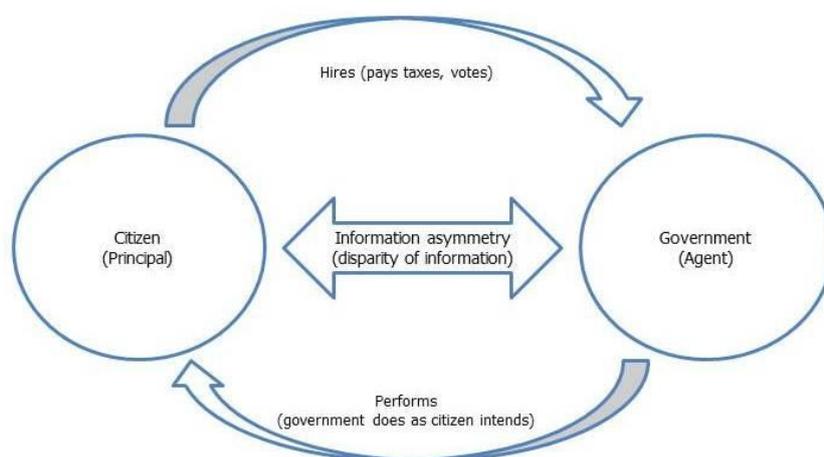


Figure 1: Principal Agent Theory adapted for Government/Citizens from (Wikipedia, 2006)

Researchers who adopt PAT to understand corruption have predominantly assumed a quantitative approach in attempting to model and predict the environment of corruption. The weakness of quantitative approaches in understanding corruption is the inability to explain the systemic spread of corruption in some societies, and much less the differing social contexts within which corruption occurs (Khan, 2009). It is difficult to find research on the role of ICT from the point of view of the citizens within the qualitative approach, most of the research takes the point of view of the government. This paper therefore adopted a qualitative stance to understand the perspectives of actively online citizens in DDCs, as principals, on the intent and environment of public-sector corruption in their countries and their views on the potential use of ICT to engage with government in dealing with corruption.

Problem statement and research question

Many citizens in DDCs recognize that corruption is worsening but are uncertain how they can leverage ICT to participate with government to deal with corruption. PAT suggests that citizens as the principal are entitled to know how government operates and what it delivers, and that by making government information transparently available citizens are able deal with corruption. Specifically, this paper sought to answer the research question: How do actively online citizens in DDCs perceive of the intent and environment of corruption, and what is their perspective on the role of ICT to understand what government does and what it delivers?

The remainder of the paper is structured as follows. Section 2 briefly reviews the literature on corruption and e-government. Section 3 considers how citizens perceive of corruption. Section 4 presents the qualitative-interpretive research approach used to investigate the research question. Section 5 presents an analysis and discussion of the findings. Section 6 presents the conclusion, later giving suggestions for further research and the research limitations.

LITERATURE REVIEW

Government has three general constituents that ICT is targeted at improving; government itself, the business sector and citizens. The use of ICT among the constituents is respectively labelled Government-to-Government (G2G), Government-to-Business (G2B) and Government-to-Citizen (G2C). When viewed through the lens of PAT, G2B and G2C cannot be achieved without G2B being in place. It is in implicitly taking this view that a great emphasis is placed on national infrastructural development and on having an online presence as foundational elements of a well-adjusted transition to e-government. On the other hand recent developments in the use of online social media means that citizens/principals are increasingly expecting G2B and G2C to offer them the same participatory means of access and to see how government works and what it delivers (UNDESA, 2010).

While the UN e-government survey 2010 has made great improvements in its measurement of e-government by adopting citizen-centric measures, it still adopts the measure of adult literacy and education rather than those who are already actively online. The UN makes the flawed assumption that if government ICT systems are ready, people will promptly use them. It is the latter assumption, whether actively online citizens in DDCs will use ICT to engage with government to deal with corruption, which this research sought to investigate.

Tensions between e-government and e-participation: Between agent/government perspectives and citizen/principal perspectives

The most commonly agreed upon means of measuring e-government has been through the use of maturity models. Maturity models are conceptual reference models that are used as benchmarks to measure the maturity of an organisation and to provide for an evolution to higher levels of maturity. The history of maturity models is traced back to Richard L Nolan who created a theoretical model for growth of ICT in business (Nolan, 1973, Nolan, 1976). Maturity models have since then evolved normatively in different disciplines with each creating its model. In e-government, there are a number of incongruent maturity models that offer the stages of development to maturity through which government can be measured.

Lee (2010) compared and contrasted the 12 most distinctive e-government maturity models which have been developed over the period 2000-2010 to reveal two distinct e-government maturity themes; a citizen theme and a technology theme. The citizen theme relates to the efficient delivery of services to citizens (and business) from the lowest maturity of information, transaction, interaction, participation to the highest maturity of active involvement. The technology theme relates to the effective harnessing of ICT to streamline government operations from the lowest maturity of integration, streamlining, transformation to process management.

While maturity models offer a practical means to assess the readiness of e-government efforts, they erroneously make the implicit assumption that progression ought to occur from one stage of maturity to the next in a linear manner. As such, many governments in DDCs continue to strive to mature in gradual stages from making information available online hoping to grow their backend systems to eventually reach a point where they can achieve efficient and effective government work process management which can then be opened to the citizens.

On the other hand, citizens in DDCs have skipped straight through to expecting active involvement with government. This is mainly because of the mobile platform that has suddenly exploded in DDCs with the proliferation of mobile phones and the accompanying

ubiquitous online connectivity. Most mobile phones today offer popular online social media platforms such as Facebook and Twitter. Previous to the mobile phone explosion, many DDCs had a very low national penetration of ICT and the internet.

This presents a tension between what an increasingly active online citizenry expects and what DDC governments are ready to make available. According to PAT, the lack of knowledge of how government operates and what it delivers makes citizens and government officials vulnerable to corruption.

RESEARCH METHOD

The principal-agent theory is flexible for use with different research paradigms but has predominantly been used from a quantitative-positivist perspective where a-priori measures are derived to balance the asymmetric relationship between principals and agents (Lane, 2005). However, the contextual nature of this research necessitated the qualitative-interpretive paradigm to understand how actively online citizens in DDCs perceive of the intent and environment of corruption in their countries, and how they perceive they would use ICT to interact with government in dealing with it.

The interpretive approach seeks to make sense of reality through the contextuality of human experience (Klein and Myers, 1999). The interpretive approach assumes that people and their subjectively contextual experiences are an integral part of ICT systems. Interpretive research therefore seeks to understand the interaction and relationship between humans and technology within the embedded social and cultural contexts.

We adopted a survey for the research with the questions derived from the key elements of PAT (Figure 1) to measure the intent and environment of corruption, the information asymmetry of actively online citizens in DDCs and their willingness to participate with government to deal with corruption. The survey asked the following six questions ordering them in a random manner and not sequentially as they appear below:

1. Environment
 - a. In what environment do you think corruption thrives the most?
 - b. What kind of corruption are you most acquainted with?
2. Intent
 - a. Why do you think people engage in corrupt practices?
3. Information asymmetry
 - a. How much do you know about how government operates, and what it delivers?
 - b. To what extent do you think technology (computers, mobile phones, etc.) can enable you to understand better how government works and what it delivers – please give examples?
 - c. If technology enabled you to communicate with government;
 - i. what would make you participate?
 - ii. what would make you NOT participate?

To ensure that only actively online citizens from DDCs responded, the survey was administered online using the free online survey platform SurveyMonkey®. The survey was

advertised by email to colleagues and friends of the researchers and posted on Facebook. The qualifying criterion was to have experience from a developing country.

A total of 71 people responded to the survey within 20 days between 19th July 2011 and 8th August 2011 (Figure 2). The country location of the respondents was tracked using the IP addresses. The respondents from countries outside DDCs can be explained by people who have relocated to developed countries from DDCs. The large percentage of respondents from South Africa can be explained by the large number of African immigrants in South Africa as well as it being the researchers' base, both of who are not originally South African.

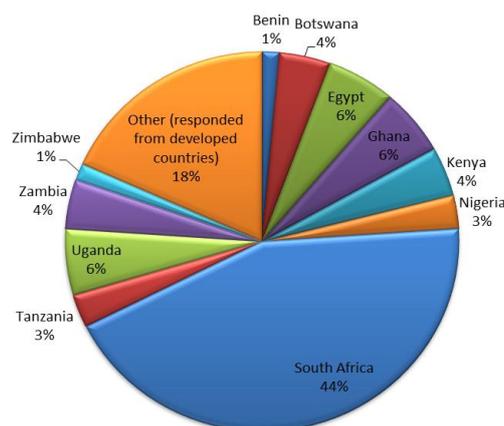


Figure 2: Percentage of respondents by location

The researchers are both from DDCs and are independent from government.

ANALYSIS AND DISCUSSION OF FINDINGS

The open ended data collected was analyzed using techniques from Grounded Theory working with Atlas.ti® software. Glaser & Strauss (1967) proposed Grounded Theory as a four step qualitative technique from which theory emerges from data, rather than data emerging from theory. The first step in Grounded Theory involves coding the data using unique identifiers (codes) which then serve as markers in the data. The data available for coding was only text data and therefore portions of the text that had meaning were identified as quotations. Some quotations can be as long as a paragraph. For each quotation, at least one code is assigned. In step two, the codes are brought together into categories based on the similarity which the codes describe. Atlas.ti® enabled the researchers to relate the emergent codes to each other into categories basing on the text, and to measure code *groundedness* and *density*. Groundedness refers to the number of quotations linked to a code, and density refers to the number of other codes connected to a code. Step three requires that relationships between the categories are inferred to create a substantive theory. In step four the substantive theory that has emerged from step three is employed to explain the phenomenon. Grounded Theory techniques are helpful when analysing massive amounts of data by comparing data with data, by comparing the data with emerging categories, and by demonstrating relations between concepts and categories. The final requirement of Grounded Theory is to compare the emergent theory with existing formal theory.

THE ENVIRONMENT FOR CORRUPTION IN DDCS

The environment

There is clearly a perception amongst actively online citizens in DDCs that there is a great deal of corruption in their countries (Figure 3, Figure 4 and Figure 5). Significance is mainly

placed on the lack of consequence for corruption. Other important environmental conditions that the actively online citizens in DDCs identified as encouraging corruption were corroded value systems, partiality in decision making, powerful minority groups, weak government systems and poor education.

1. In what environment do you think corruption thrives the most?						
	Little to almost none	To some extent	To a large extent	Greatly	Rating Average	Response Count
When officials can exercise power without the approval of other officials	0.0% (0)	15.2% (10)	37.9% (25)	47.0% (31)	3.32	66
When there is no consequence for corrupt practices	4.3% (3)	4.3% (3)	21.4% (15)	70.0% (49)	3.57	70
When leaders and senior officials set an example of corruption	3.1% (2)	4.6% (3)	24.6% (16)	67.7% (44)	3.57	65
Other (please explain) Show Responses						16
answered question						71
skipped question						0

Figure 3: The environment for corruption

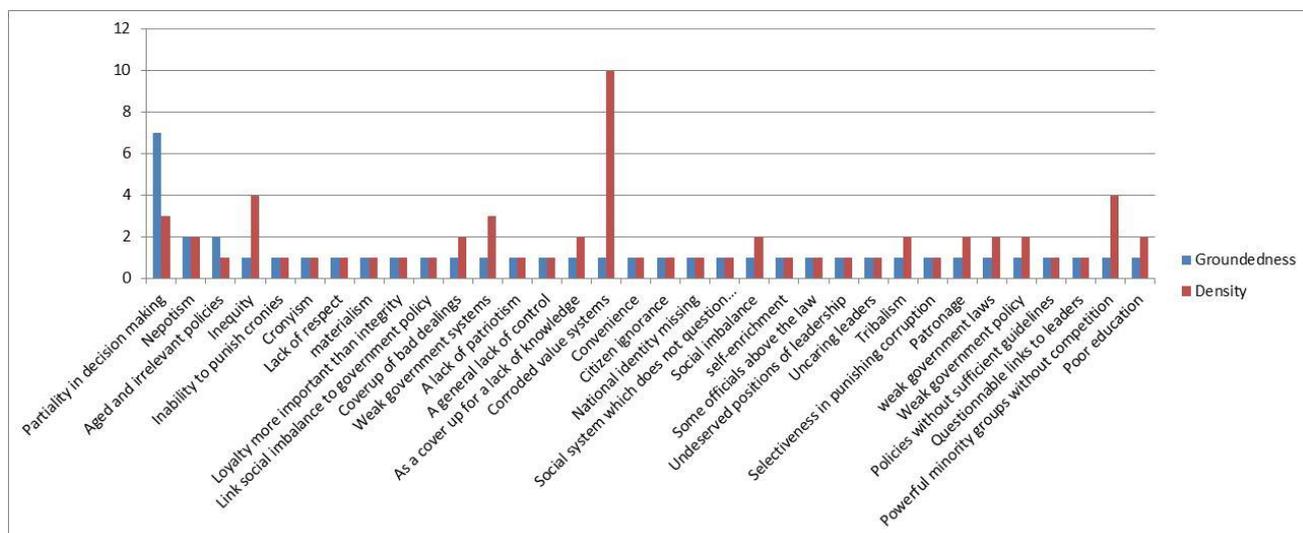


Figure 4: Groundedness and density of codes on environment

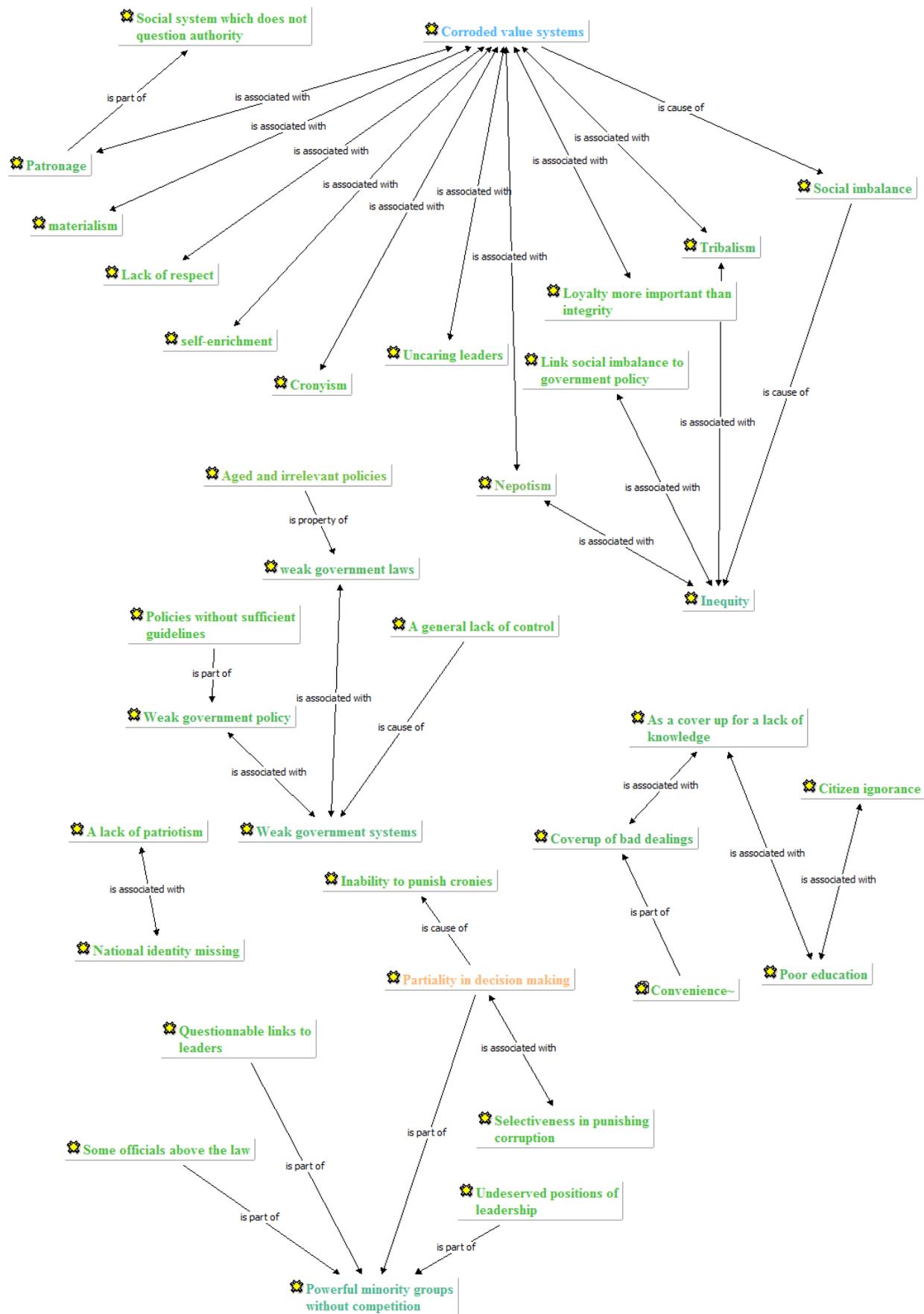


Figure 5: Network diagram for environment

The finding confirms the relationship between DDCs and corruption linked in value systems that are tolerant of corruption. It is a rhetorical paradox that there are powerful minority groups which control government in a democracy. We infer from the network diagram (Figure 5) that the value systems of minority groups are corroded and these groups are responsible for creating an environment where corruption thrives. The members of these groups are deemed as untouchable and not accountable for their corrupt practices. The result is an eventual breakdown on government institutional systems. The powerful groups take advantage of the poor levels of education among citizens and value systems which do not question authority.

Types of corruption in DDCs

There is a stronger perception of bureaucratic corruption than political corruption (Figure 6). This finding contradicts the perception of political corruption evidenced by powerful minority groups. The contradiction may be explained that bureaucratic corruption is a manifestation of political corruption whereby the powerful groups will appoint their members into administrative and government positions, which members are not able or supposed to question the group.

6. What kind of corruption are you most acquainted with?						
	Little to almost none	To some extent	To a large extent	Greatly	Rating Average	Response Count
Political coalitions and elites influence the formulation of national laws, policies and regulations to serve their interest e.g. vote rigging, registration of unqualified, dead or non-existent voters, buying and selling of votes, and the alteration or outright falsification of election results.	21.7% (15)	23.2% (16)	27.5% (19)	27.5% (19)	2.61	69
Ignoring or not complying with the enforcement of laws, policies and regulations to personal advantage. For example, 'tenderpreneurship' in the unfair awarding of contracts, false or incomplete entries in accounts and records, faked reconciliations, inferior items substituting genuine items	5.9% (4)	30.9% (21)	33.8% (23)	29.4% (20)	2.87	68
answered question						71
skipped question						0

Figure 6: Types of corruption

The intent of corruption

Greed stands out as the most significant intent of corruption (Figure 7 and Figure 8). The intent when linked to the existence of powerful minority groups with value systems that are corroded, and the ripple effect of the manifestation of such power in minority groups, suggests a spiralling corruption problem as a way of life. Further to greed are conditions of poor education, poverty and extended family systems that put pressure on members of the powerful groups to be more corrupt.

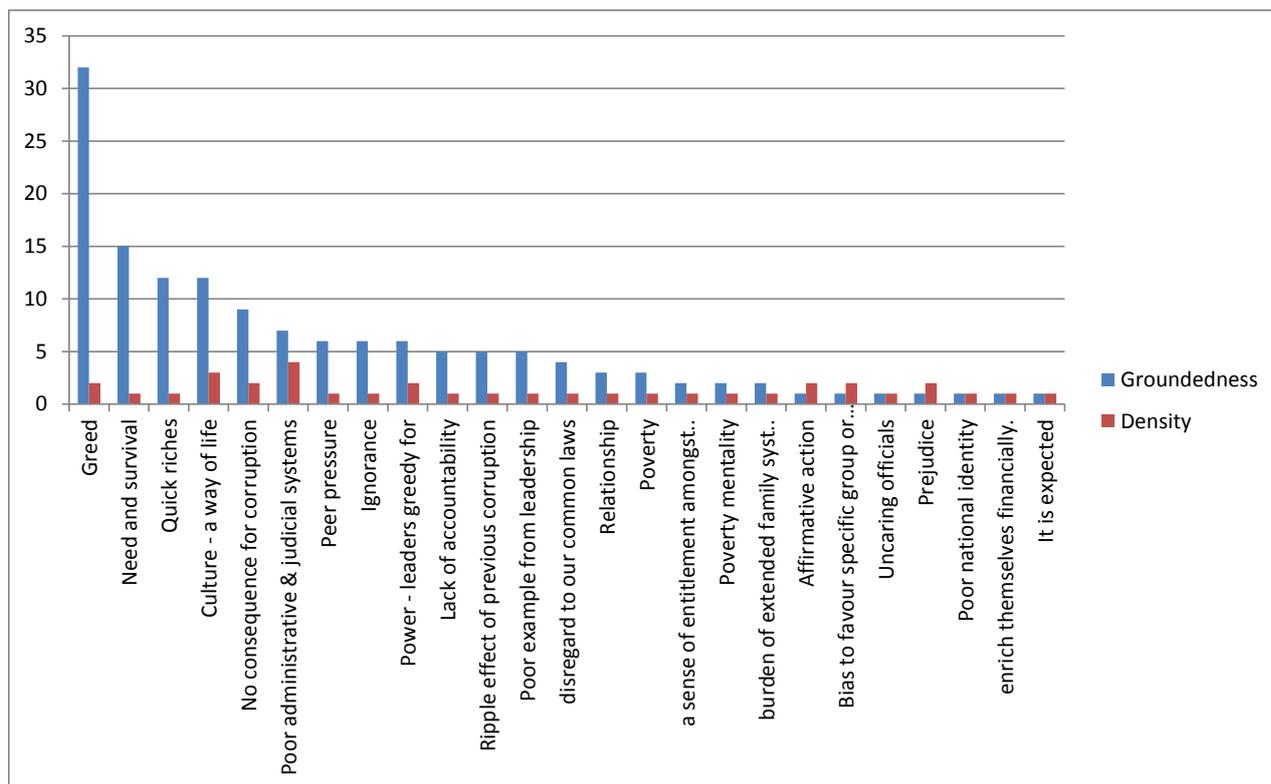


Figure 7: The intent of corruption

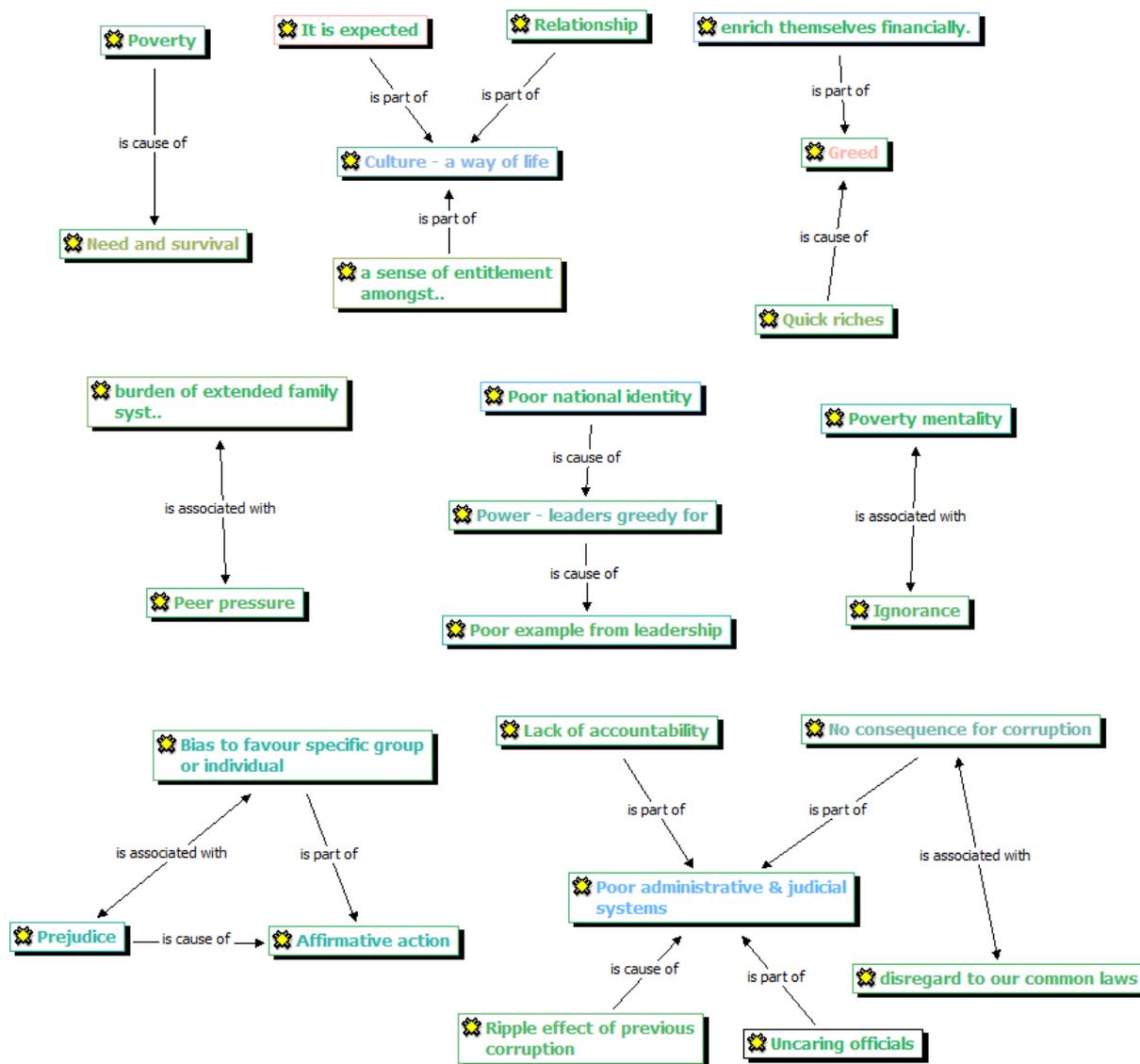


Figure 8: Network diagram for intent of corruption

INFORMATION ASYMMETRY

Knowledge of government

The majority of actively online citizens in DDCs believe they have an average to good knowledge of how government operates and what it delivers (Figure 9). The levels of knowledge may be related to the ability to gather more information from beyond their constituent countries from the internet. The finding suggests that actively online citizens are more likely to notice when government does not perform as it ought to.

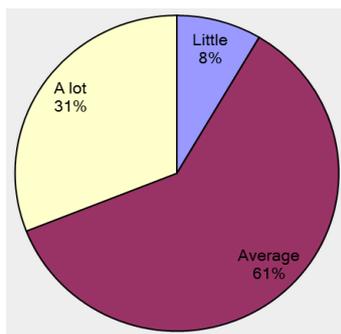


Figure 9: Information asymmetry about government

The extent of ICT enabling a better understanding of government

The majority of actively online citizens in DDCs, unsurprisingly, see the role of ICT as getting more information online and allowing a greater degree of access to information about how government and its officials operate (Figure 10 and Figure 11). A related emphasis is placed on leveraging mobile platforms and social media to mass action.

However, there is a secondary yet comparatively significant degree of pessimism (Figure 10) that ICT is not able to play any significant role in dealing with corruption. The pessimism hinges on the ignorance of many citizens and the unwillingness of many citizens to participate in dealing with corruption.

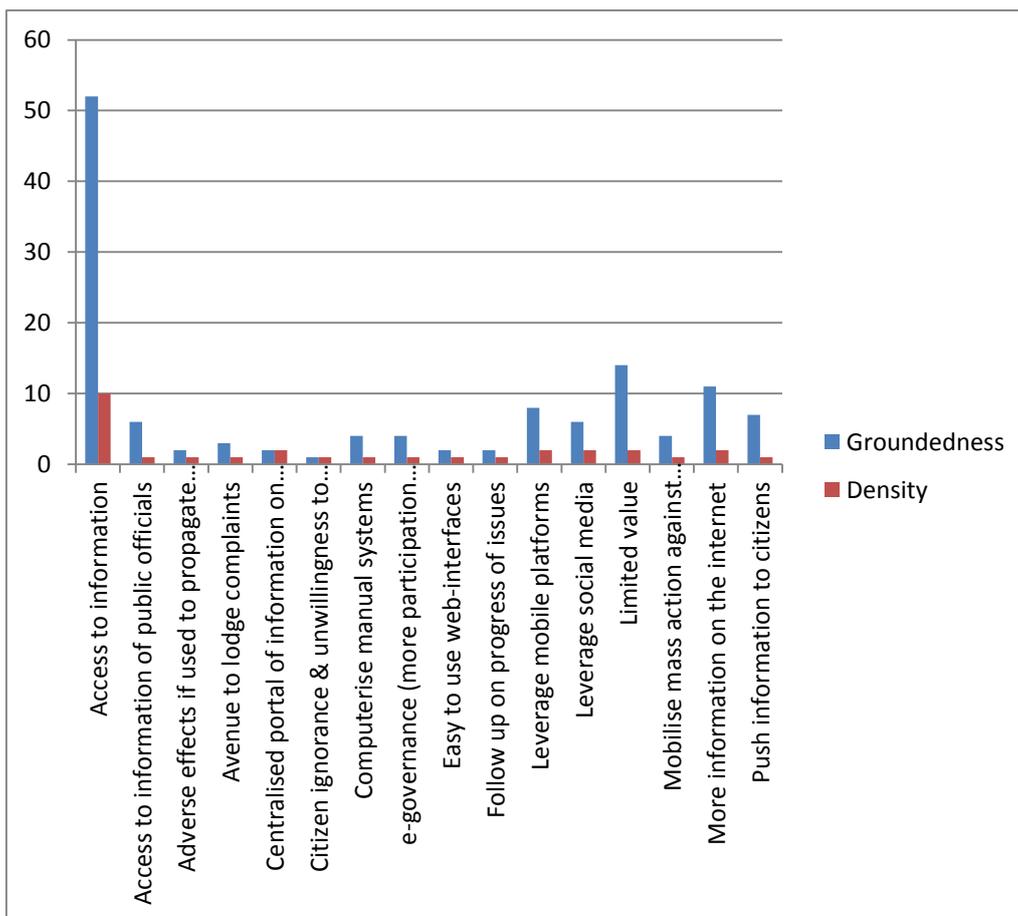


Figure 10: The role of ICT and corruption

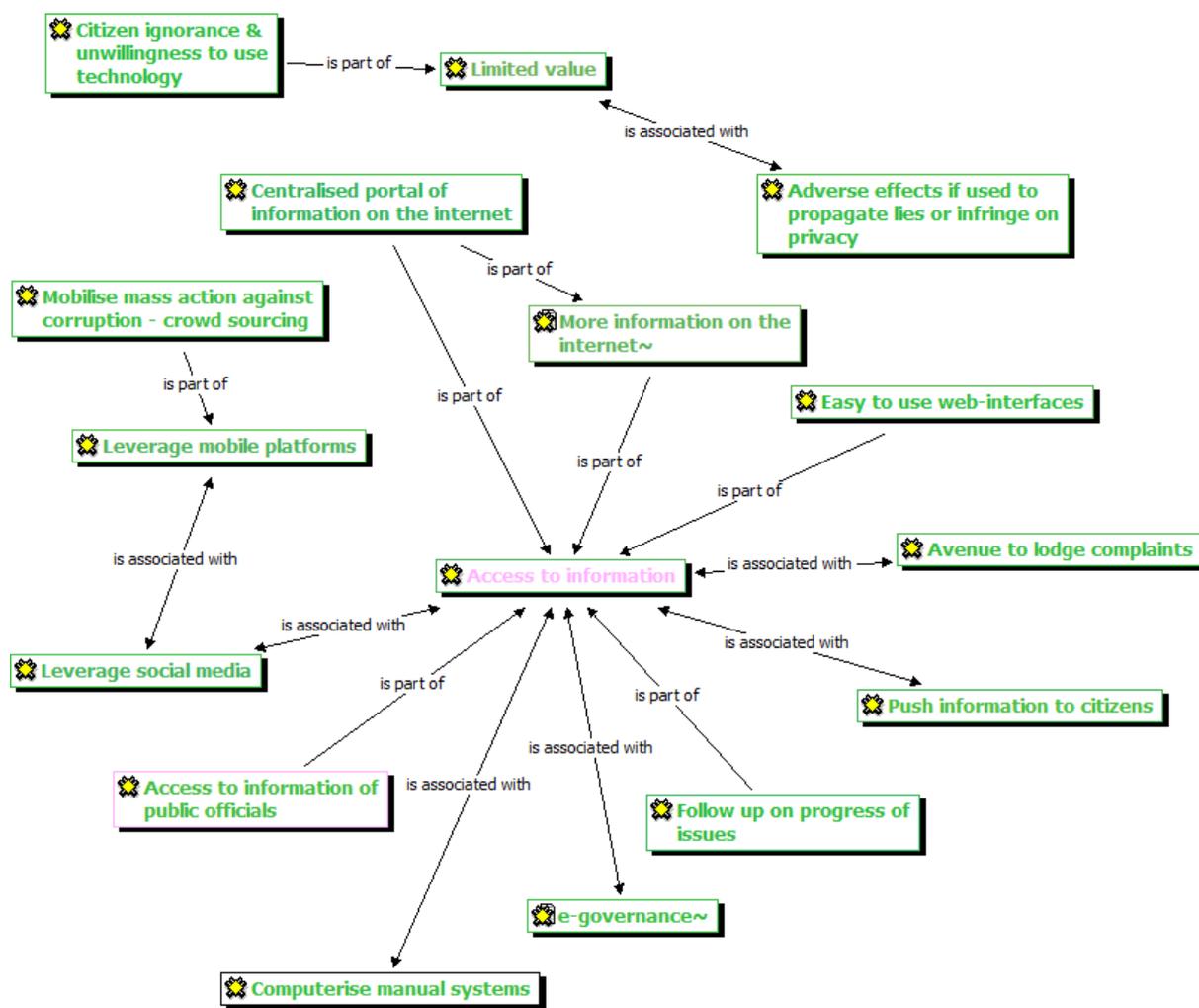


Figure 11: Network diagram for information asymmetry

Enablers and disablers to participation

All respondents expressed a great willingness to participate using ICT especially because of a keen willingness to become involved citizens, patriotism (Figure 12, Figure 13 and Figure 14). There was also a high level of belief that ICT is able to allow a platform from which people can confidently, securely and easily participate with government.

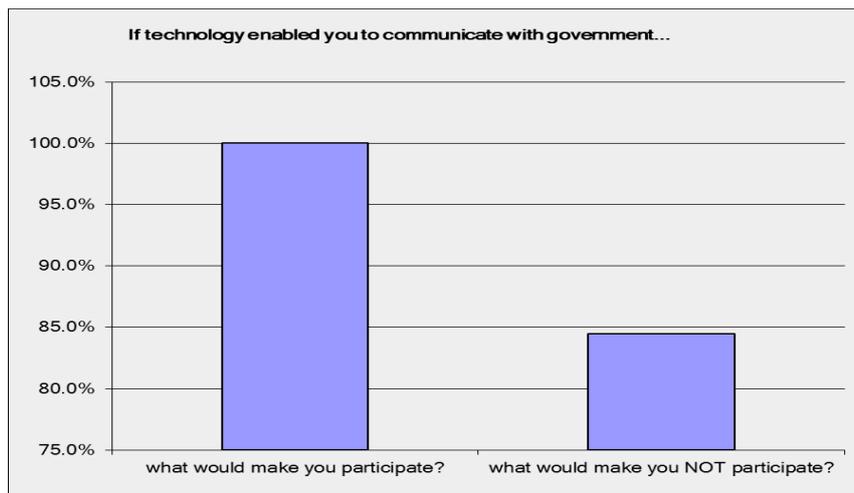


Figure 12: Enablers and disablers to participation

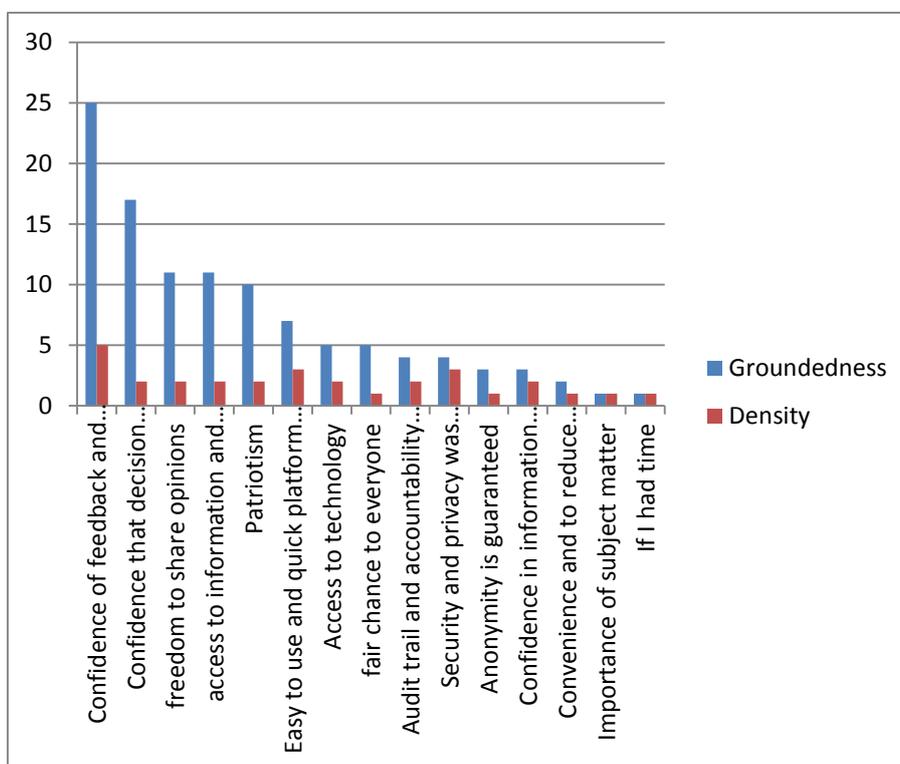


Figure 13: Willingness to participate

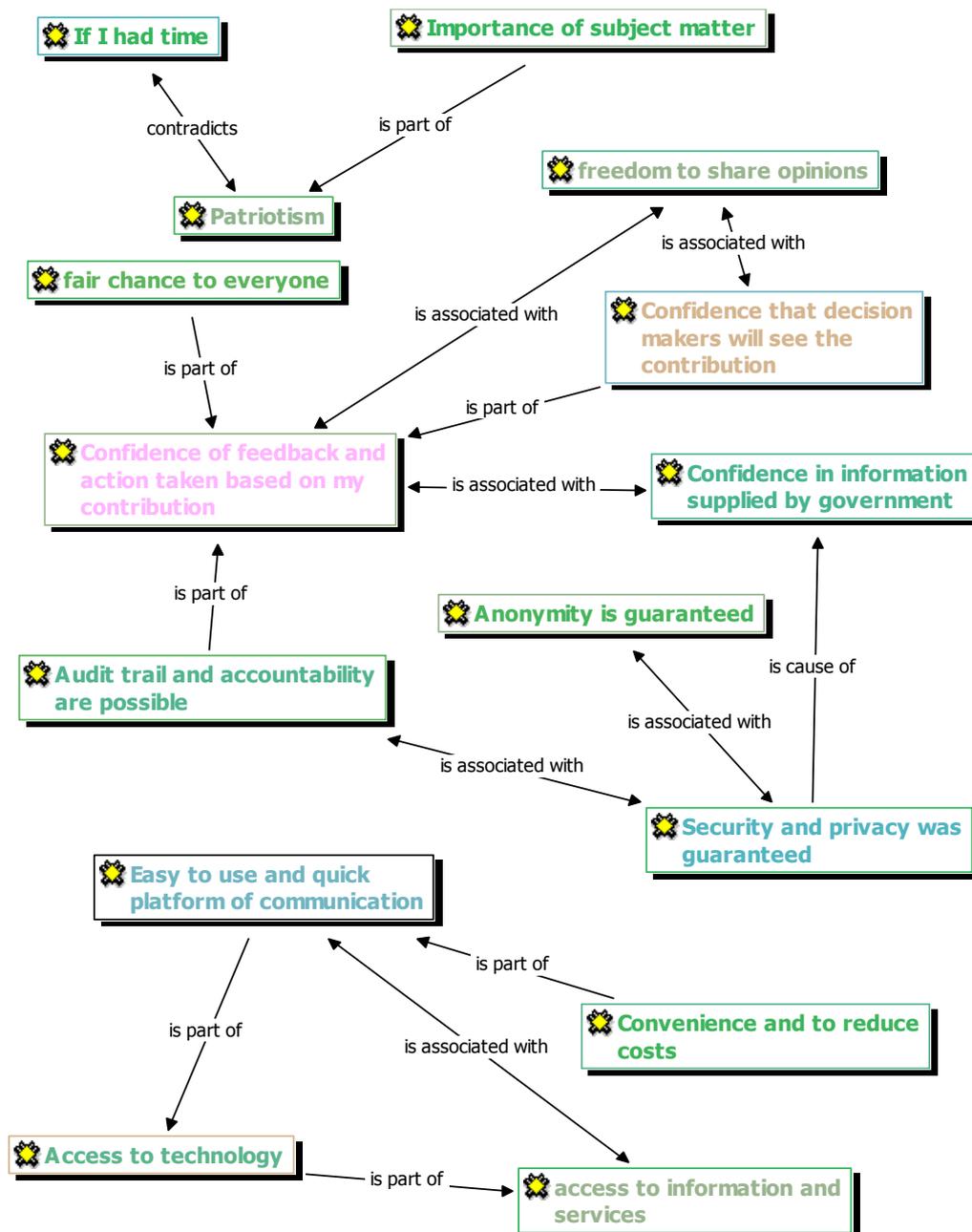


Figure 14: Network diagram for willingness to participate

However, 84.5% are unwilling to participate with government using ICT especially citing an apathetic government, a fear of victimization and an anxiety that participation is a waste of time not worth the effort (Figure 15 and Figure 16). Another secondary reason is the concern that the powerful minority groups may be able to hijack the ICT platform and use it for their own ends. The finding suggests a very low degree of insufficient access to ICT platforms to engage with government.

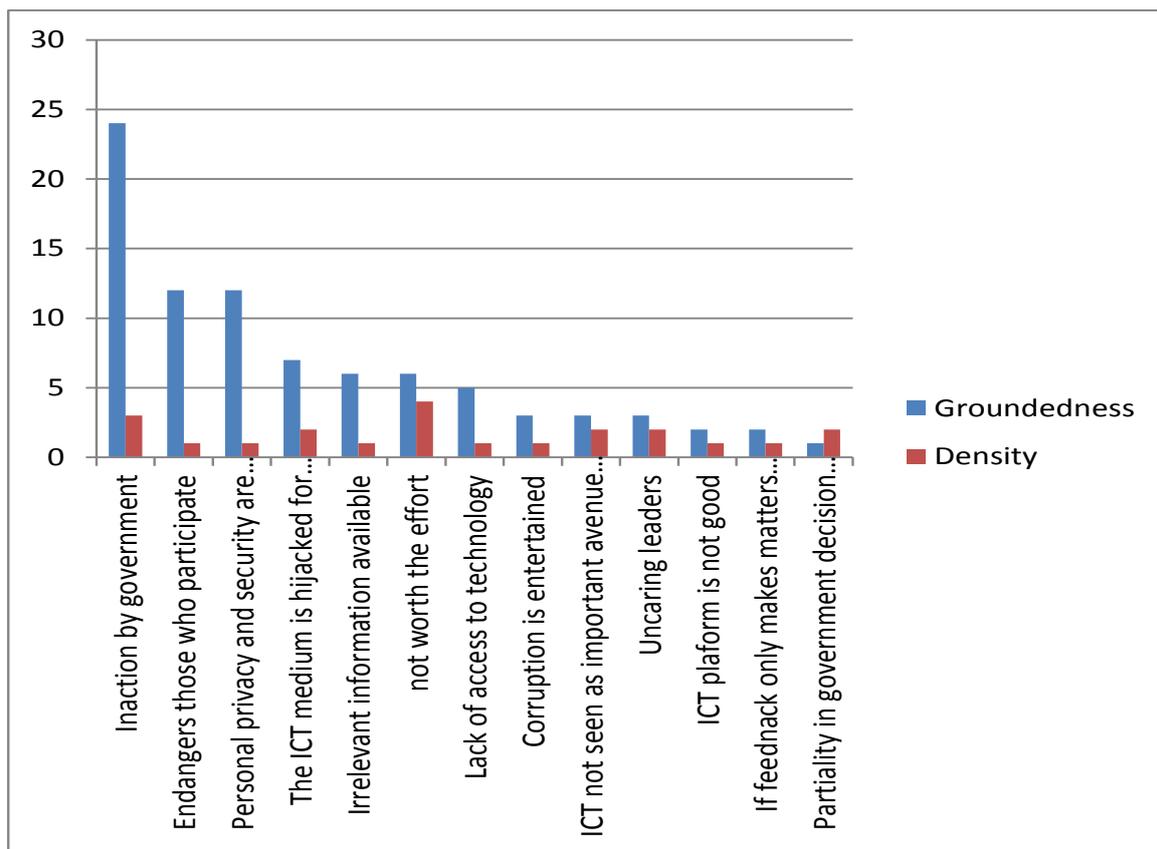


Figure 15: Unwillingness to participate

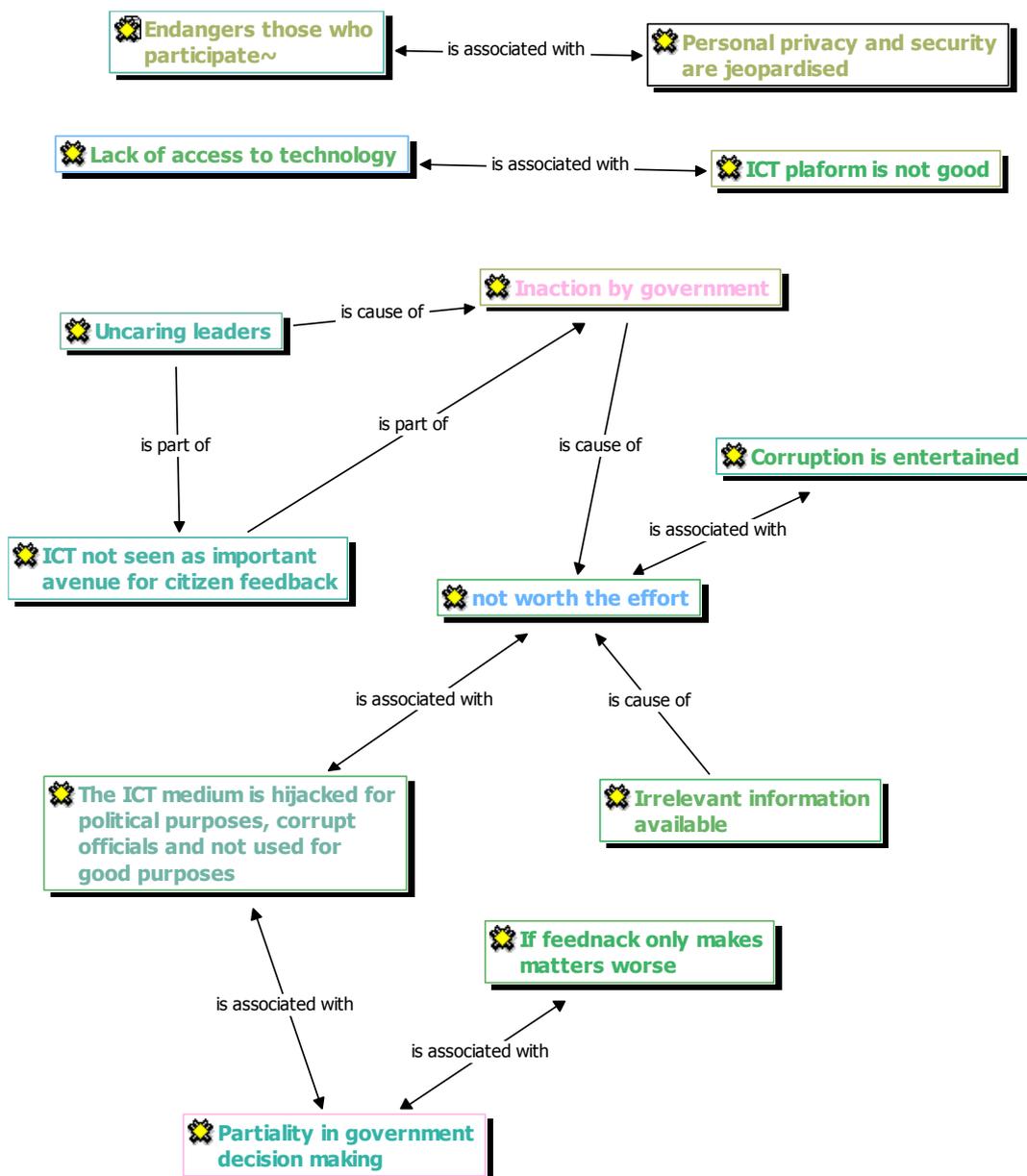


Figure 16: Network diagram for unwillingness to participate

CONCLUSION

In conclusion, we reflect on the primary research questions how actively online citizens in democratic developing countries (DDCs) perceive of the intent and environment of corruption, and their perspective on the role that ICT can play in understanding government better and using ICT to deal with corruption. The findings show that actively online citizens in DDCs believe they have good knowledge about how government operates. The findings revealed that actively online citizens in DDCs are all willing to participate with government using ICT to deal with corruption because of a keen patriotic willingness to become involved citizens. They believe that ICT is able to create a platform from which they are able to confidently, securely and easily participate with government. There is a belief that the greatest role of ICT is through leveraging mobile platforms and social media to mass action in dealing with corruption.

Despite the patriotic willingness to participate, a significant portion - 84.5% - are unwilling to participate with government. They cite an apathetic government, a fear of victimization and an anxiety that participation is a waste of time not worth the effort. The pessimism is because of a great concern about an environment in DDCs controlled by powerful minority groups which groups have corroded value systems. The manifestation of these powerful groups reaches beyond political corruption to manifesting itself in bureaucratic corruption. The members of the powerful groups are often untouchable and rarely punished for their corrupt practices.

Greed unsurprisingly stands out as the most significant intent of corruption. The findings show that greed is further fuelled by conditions of poor education, poverty and extended family systems that put pressure on members of the powerful groups to be more corrupt. The ripple effect of members of powerful groups getting away with corruption has the unintended consequence of entrenching corruption even further in society.

In conclusion, the research shows that while actively online citizens in DDCs are willing to harness the power of ICT, they are pessimistic that ICT can play a significant role unless it is used to bring about mass action in unseating powerful minority groups that control government.

This paper makes a contribution to IS in suggesting how ICT may play a role in dealing with corruption. The literature on corruption suggests that the role of ICT is in allowing greater access to information about how government operates. However, this paper has shown that information asymmetry may not add any value in dealing with corruption unless the powerful minority groups that control government are dealt with first.

The paper also makes a contribution to the principal-agent theory in using it as a guide for research to understand the role of ICT in dealing with corruption from a qualitative perspective. The principal-agent theory does not sufficiently explain how corruption can be dealt with beyond information asymmetry. As part of information asymmetry, provision needs to be made which allows powerful groups that may block the flow of information as a first step in dealing with corruption.

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