IMPLEMENTING A LINEAR FUNCTION TO MEASURE THE QUALITY IN GOVERNMENTS

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Abstract: Once the biggest issue with the current democracy system is identified, the research focuses on finding the root of the problem. This is a key step and requires further analysis as we are constantly deviating from the true origin. Unless we tackle the root of the problem any attempt we make to improve the system will be in vain. The current democratic system is severely flawed and therefore requires improvement that can only be detected by society. The works highlighted here report numerous problems of corruption, lack of transparency, information monopoly, and bipartisanship in virtually all current governments. These days, citizen demonstrations against political abuse are a social reality, which proves the large gap that exists between the government and the middle class.

This work defines several parameters to measure the quality of governments and propose to use a linear function to check on them.

Once the root of the problem comes to the surface, the way to move forward becomes clear.

Keywords: Linear function, quality measurement, Democratic system

Introduction

By accepting that change is needed because that is what we see in the streets very often, the change that everyone wants is a government that preserves the social welfare by creating jobs, boosting the economy and protects the weak ones. The aspirations of change are focused on the choice of good government. Therefore, a very interesting and necessary point in the election process is to define which government is a good one. Several authors have written about the qualities that a good government should have. John Gant calls on transparency as a major requirement. Charles Murray a senior researcher of policy research institute Manhattan in his book In Pursuit: Of Happiness and Good Government [Raggat, 2007] advocates for a more decentralized government. Furthermore, government corruption is objects of numerous books. Obviously, it is desirable to reach a zero level of corruption in public positions.

In the opinion of most experts, and particularly the governments, the goodness or the quality of a government is linked to the ability of making "right" decisions [Murray,1994], [BrainBridge,2008], meaning that the decision is motivated by the public interest and ultimately favours this. What is clear is

that a government cannot do anything. It is not merely decorative [Munshi, 2004]. Otherwise, we could remove it and save a bunch of money. So as It must make decisions, this decisions must be the best ones or the right ones, meaning that they have to help to achieve preserving or improving security and social and economic welfare for the citizens they represent, (or at least minimize the effects of an unavoidable damage to the country).

First approach

Some political scientists establish that there are mainly three factors accepted as valid to measure the quality of a government. These are vocation, preparation and competence
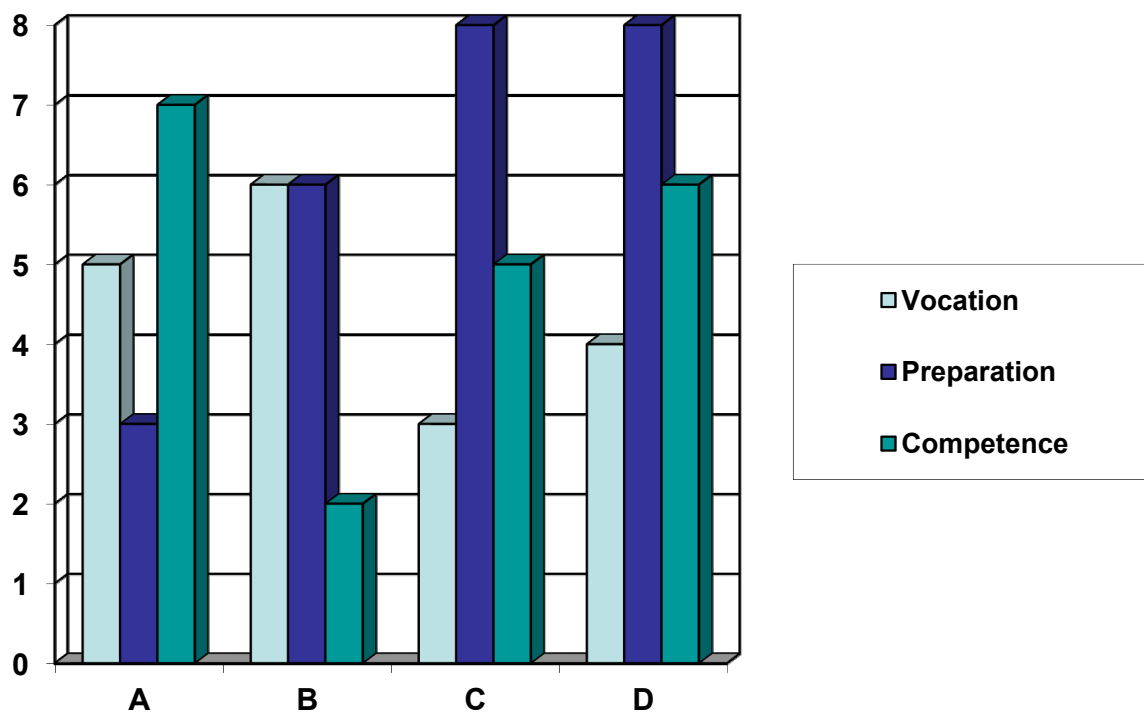
Figure 1. Vocation, Preparation and Competence

This would be an example of measuring 4 governments (A, B, C, D) that meet the criteria of vocation, competence and preparation.

The analysis carried out below is open to debate and it's not scientifically proven. It is a proposal based on political analysts' opinions and observable facts. However I consider it can provide a fair method to evaluate a government jount performance.

In order to assess the quality of a government more factors could be considered, but obviously these three are essential. In this proposal, the same weight is assigned to each of these factors which mean that we accept they are equally important to evaluate the government's quality.

Vocation

Peter Raggat [Raggat, 2007] is a writer and expert on the educational systems of UK. In his book ***"Government, Markets and Vocational Qualifications: An Anatomy of Policy"*** Raggat conducts a review of decision policies. In his opinion, there is a vocational education program in the UK, however this does not necessarily empower growth and welfare. According to Raggat, the political class is the one who profit the most from the government decisions. Raggar defines vocation as a fundamental value. Logically, vocation and corruption are two opposite concepts to measure the degree of involvement in the state tasks. The more vocation exists in the performance of the tasks (Serving your country), the least corruption will be. We understand that on a scale (0.10), 10 is absolute vocation meaning that only the general interest prevails in the country and there is no personal interest at all in the political duty.   0 would be absolute corruption meaning there is no vocational interest at all, the only motto then is private interests (personal enrichment). Any intermediate value will have some vocational and corrupt part (which is probably where most of the existing governments are).

The correct decision-making is undoubtedly influenced by the vocational level. A 100% vocational decision will always seek the general interest of the citizens. A decision that has absolutely no sense of vocation but only the personal interest, will be 100% corrupt. There will be decisions that maybe are good for public interest and also for the individual. However, the main motivation that should drive decisions of a government should be the public interest. The more vocational, less corrupt government decisions are (regardless they are wrong or right). Therefore that should be the first step to be taken by the government that aspires to have the highest quality.

Preparation

Again, if we admit that society has to be prepared to carry out whatever tasks they perform, it is not lower the need for elected leaders to be prepared, trained and fully qualified to rule and serve their country during the period they are in power [Brifault,2000]. The preparation may come from academic studies, courses, conferences, and experience. Obviously someone who has ruled a country has gained experience in decision-making and it is normal that they have learned from that experience. This logically adds a good value when decisions need to be made. So, when a government is experiencing a situation that requires making a decision, they should know what to do. Obviously, they must be prepared and know the consequences of their decisions[Caplan,2007]. This preparation clearly should have come from their experience and training. This proposal considers that preparation *(prep)* consist of

two equally important factors will $prep = \frac{1}{2}\exp + \frac{1}{2}training$. *"exp"* is variable that returns the experience and *"training"* the theoretical knowledge

Competence

This is possibly the differential factor 3 because surely is what makes the difference between all governments. This is defined as the government's ability to solve problems, make the right decisions in difficult times. It is the point of genius that should be distinguished from the other. It's that ability that shows that capacity of reactions facing unpredicted and unforeseen situations, the response must be the best as possible. It is the innate ability that develops in some people, usually driven by a vocation when a situation requires to be solved without the manual. This factor is noticeable in many examples such as the surgeon who innovates a method that was not on the books to operate and heal the patient when this was about to pass away, the teacher who gets the best out of the student without following general guidelines, that ability to do your job well, not always by following the established recipes. Naturally, this is impossible without vocation or preparation.

A person who has no medical training or vocation, although it has a potential of making good decisions, may not be as competent as a doctor who does have those two values.

Only with the vocation we might not be able to be competent because we would need to have the knowledge on which to base our decisions. And only with the preparation, we will be able to apply the recipes in the book but it would be very difficult to have that ability to do our job successfully if we are not driven by the call to serve our citizens. We might lose in situations that are not in our recipe guide.

The interesting thing is that while the vocation and preparation are essential to be competent, their existence does not always guarantee a high value of competence. And that is the differentiating factor.

Sure there will be many doctors minded and prepared but with little power to make decisions when they face unexpected situations that are beyond the script. So, although preparation and dedication are essential to be competent, it takes a touch of genius, that ability that really makes the difference between a good government and the optimal one [Chomsky, 2002].

Building the function

Our analysis considers the three values equally important (vocation, preparation, competence). We can then establish the following estimation for the quality of governance:

$$F(x,y,z) = \frac{1}{3}x + \frac{1}{3}y + \frac{1}{3}z$$

x=vocation, y=preparation z=competence

As mentioned, the competence will depend largely on the previous two, so it can be defined as a function with variables: Vocation and preparation influences the ability to make decisions when unexpected situations arise.

In addition it will be needed to take into account the relation between corruption factor and time. The level of corruption in a government can increase upon time. The longest a government stay in power the higher are the chances for the corruption to increase. So, although experience adds value to the preparation, it is also clear that might increases the level of corruption in long term. In fact, there are many cases of governments that have lasted more than 20 years and have proven a high level of known corruption cases.

This analysis suggest that government acquires a higher preparation level the longer they stay power but its vocational level tends to decrease over time by increasing the corruption. We understand that the relation between corruption and time is a generalized linear progression for some societies, being possibly quadratic or exponential in underdeveloped societies. (Probably related to the training level of the population) Following, there is a model example for the progression of experience and corruption versus time. These would be the functions exp (t) and voc (t), which measure vocational level and experience of a particular government "A" upon time.
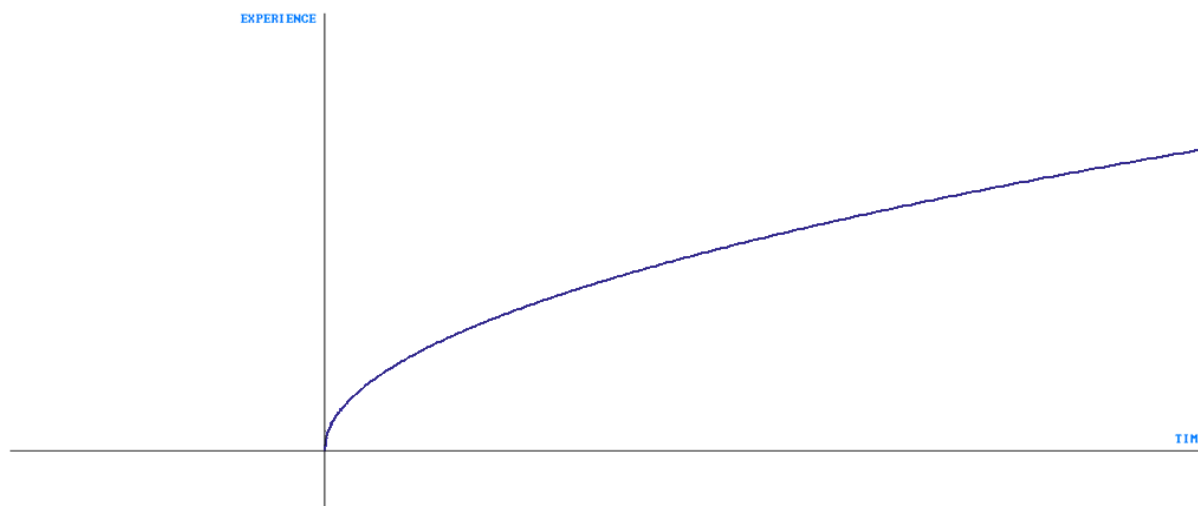

Figure 2. Function Exp (t) experience increases with time (t) years in office. Government Experience(A)

Obviously the experience has a limit and that is why the representation has to show a curve. It is impossible to have infinite experience

However, it seems logical to think that corruption also increase upon time. The proof of this is governments who have spent many years in power and have degenerated into extreme corruption

diminishing their vocational level. The graph shows how the vocation decreases smoothly as we move through time in a standard government. Depending on the situation, perhaps the vocation could even increase over the early years and then decrease in the long term, or maybe vocation decreases faster, but in general the governments that have been long in power lose vocation and gain in corruption.
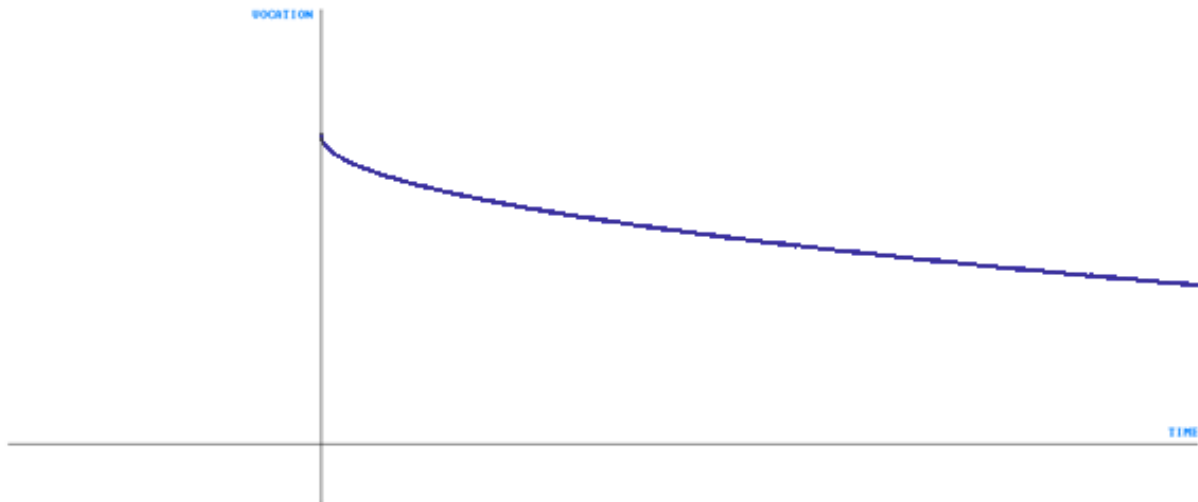

Figure 3. Corruption increases the longer in power, and therefore vocational level declines gradually
VOC (t)

Finally the level of competence of a government COMP (x, y, s) can univocally be defined, as competition depends on the vocation (x), preparation (y) and the innate ability of making correct decisions (s)

In this proposal these facts are accepted:

— Competence is 0 without any vocation.
— Competence is 0 without any preparation
— Competence is 0 without any innate ability to face unexpected problems.

We also accept that these three values equally influence the competence factor existing in any government.

So COMP can be defined this way:

$$COMP(x,y,s) = \begin{cases} 0 & x=0 \vee y=0 \vee s=0 \\ \dfrac{1}{3}x+\dfrac{1}{3}y+\dfrac{1}{3}s & x \neq 0 \wedge y \neq 0 \wedge s \neq 0 \end{cases}$$

The function that combines COMP, VOC, PREP could be a good indicator for the quality of a government.

For example, let us suppose a government 'A' with people who have been long in power, a great political party; a very small privileges or almost nil-paid. There are no known corruptions cases. Moreover, we have seen that its policies have helped the economy and there have been a social improvement. Furthermore, it has proven high professionalism when dealing with difficult issues. This government would get a high grade.

However, we can evaluate a government 'B' whose members have profited, with no political preparation and just have not shown that their decisions have helped citizens but impoverished them. There have been cases where governments have much higher level of private and public deficit without economic growth lead. In that case it's the grade could be quite low.

So, below there is a proposed method for assessing the quality of any of the existing government:

 We see the time they have been in office:

Based on that, experience, level of political education: (qualifications, training, degrees), known corruption cases, benefits and privileges granted to government officials.

With this info two parameters are fixed:

   — Preparation: (experience and training)
   — Vocation (time in office, corruption)

The Innate ability to solve problems by creating policies that have proven effective has an influence in the COMP factor.

With the top 2 parameters ("preparation", "Vocation") are found; from them would be possible to infer the third parameter "competence".

Eventually F (COMP, VOC, PREP) would return the index of quality of government. To maximize the value of quality, COMP values, VOC, PREP must also be maximized. However, as we have defined it, to greatly increase the level of experience, vocation decreases.

The function F reaches maximum values when governments are highly trained, have several years of experience, present no corruption or have obtained benefits from office, and have demonstrated that their actions have benefited the country they represent.

Among the first government prepared 'A' and the second 'B', there may be many intermediate. It seems logical that these functions could be a good starting point for assessing the management of whatever government.

Conclusions and future work

The need to have high quality systems is out of question. There are many parameters to measure how good a system is. This work proposes a method to measure the quality of a democratic system through the use a function that returns a value. Most ways to determine the quality of governments tend to be subjective; however this method combines 3 objective values to have the most possible objective value when dealing with measuring that quality. This function gets numeric values that match the competence, vocation and preparation. Therefore these values represent a reliable way to establish the quality of a specific government.

The application of this function to the current governments might show that the quality of the current governments leave a big room for improvement. Thus, this is a first step to start a new revolutionary way to try to improve the quality for whatever system is object of study and more specifically the democratic systems.

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