Applicability Of 'Influence' As A Measurable Tool In Social Science Research

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***Abstract*—This article made a studious attempt to make a contribution to research on the often discussed and debated area of 'measurability' of research variables. By explaining the uniqueness of social sciences amidst other sciences; this paper evaluated the details that underlie the measuring of variables and measuring of research tools in social sciences, it assessed the measuring of 'Influence' in Social Sciences from available scholarly works from political science perspectives which defined influence as work that is used to politically motivate an institution or organization's decisions in a certain direction through advocacy, lobbying, negotiation and knowledge uptake. The study argued that 'influence' is a construct (being an idea or theory containing various conceptual elements and at the same time an indicator variable that measures characteristics or trait) of persons and activities in society. This article further examined the applicability of 'influence' as a measurable tool in social sciences and observed that it has capacity to have an effect on the character, development, or behaviour of someone or something, or the effect itself. There exist multiple forms of influence in use in order to achieve organizational or research goals which then requires that multiple approaches should be used to evaluate them. Using thematic approach and qualitative analysis the study concluded that despite the ability to measure influence, there must be readiness to counter the inherent challenges that are associated with it.**

Keywords—Measuring Influence, Influence in research, Research Tools, Measurable Tools, and Applying Influence

Measuring of Research Tools in Social Sciences

Social science is as complex as society because it draws its strength as a discipline in improving the society in socio-eco-political dimensions. While agreeing to this, Ragin (1994) argues, while identifying order in the complexity of social life is the most fundamental goal of social research, there are many other, more specific goals that contribute to this larger goal. They are quite diverse. For example, the goal of testing theories about social life contributes to the larger goal of identifying order in complexity; so does the goal of collecting in-depth information on the diverse social groups that make up society. Another factor that contributes to the diversity of the goals of social research is the simple fact that social research reflects society, and society itself is diverse, multifaceted, and composed of many antagonistic groups. It follows that the goals of social research are multiple and sometimes contradictory. Today, no single goal (*identifying general patterns and relationships, testing refining theory, making predictions, interpreting significance, exploring diversity, giving voice, and advancing new theories*) among the seven that dominates social research. Social phenomena are significant because they are common and general affecting many people directly and indirectly hence generality makes knowledge of such phenomena valuable amidst hard sciences. In our thinking to concur with Ragin, in fact a major goal and primary one social research is identification of general patterns and relationships from which it derives research legitimacy.

There is power in the use of well formulated research objectives, themes, and guides. Objectives generally; facilitate the understanding of human behavior, acquiring knowledge about social phenomena/events/issue/problems/etc, and also helps in identifying functional relationship existing in the social phenomena. In this sense then objectives are a reflection of the society behavior; what people do, what they are, what happens around them. Objectives arise from intentions of researchers. This leads us to ask if researchers at whatever level know what they are doing. The answer to this lies in an analogy that all farmers going to their farms know what they want to produce except dispositional factors may render their efforts culminate to varied outcomes which applied to social science research marks the beauty of finding problem or solution. In a nutshell, all researchers know what they want to undertake, they are never greenhorns as always assumed hence senior researchers ought to provide guidance on the basis of crude ideas presented by junior scholars to learn from diversity of social sciences.

The next bit of this discourse now comes to address the ability of one to handle certain objectives. Schutz (1966) insists, to think of interpersonal needs in terms of either *the expression of* or *desire for inclusion*, *control*, and *affection*? The four elements of objectivization mentioned by Schultz henceforth

brings to fore the reality of handling particular research objectives. Expression, desire to include, and affection may not be a problem but what of control in actual studies. The ability of control or not to variables is what often gives rise to measurability of a research objective. Caution should be taken here, measurability is not uniform within social science itself leave alone outside the discipline. It would be prudent to get the verbatim expression of a researcher and corroborate with how it is written.

Capacity to answer the questions raised by Schutz depends upon the power and robustness of measurement procedures in place. The importance of measurement to social research is well stated in an observation by (Featherman and Hauser, 1973): I should like to venture the judgment that it is *inadequate measurement*, more than *inadequate concept or hypothesis*, that has plagued social researchers and prevented fuller explanations of the variances with which they are confounded. Blalock (1970:88-9):"Measurement considerations often enable us to clarify our theoretical thinking and to suggest new variables that should be considered. It is often thought, prior to actual attempts at measurement, that we really understand the nature of a phenomenon because we have experienced it directly. We want to argue that research tool measurements are also prone to errors thus they lead to the problem of bridging the gap between theory and research. Students of research ought to be cognizant to this fact. From Blalock line of thoughts, definitively then measurement can be a linkage process of abstraction in concepts to empiricism of indicants.

Why then are the social sciences characterized by "inadequate measurement"? Although the answer to this question is no doubt complex and multifaceted, we would suggest that a fundamental component of any complete answer must lie with the most popular definition of the term provided by Stevens more than 25 years ago. "Measurement," Stevens (1951:22) wrote, "is the assignment of numbers to objects or events according to rules." We note here the beginning of the errors in interpreting measurement in social scientific studies, the inclination to 'numbers/statistics' cannot apply here as it is to hard sciences. It is not concluded for example that measurement such as influence cannot be quantified using numeric assigned attributes but it is equally important to state that measurement can be described and explained on the basis of pure archives of existing literature.

Among other research objective constructs in form of actions, behavior, and conditions that we measure often in social science research include; *effectiveness, nature of, pattern/trends, dynamism, participation, contradictions, utilization, initiatives, validation, performance, success, failures*, and *effects/impacts* among many others. Studies on impacts tend to appeal to many researchers across board, of not because they are out rightly easy to measure but probably because they are direct and easy to handle and academic populism to them by grounded researchers tend to influence upcoming academicians to them. On the other hand studies geared towards relationships requiring focus on *interplay* and *comparatives* are scarcely attractive to many a contemporary researches as the fate of 'how will you measure these' easily befall them. Junior scholars retreat their intentions as farmers who do not know what they want and no daring follow ups come forth from the epistemology of the able guides and the cycle of studies coil. In essence it remains the task of this study to demystify the notion and conclusion that '*influence*' is not measurable for social science study. The existence of intention, ability, methodology prodding, and guidance should make it measurable in social science research whether in numeric/statistics or descriptive without jeopardizing research validity.

Moreover, another construct/action that rarely features in many researches due to its confusion is replication. Arising from the terminology is the dilemma of whether it is a method or a research undertaking. The former seems to gain popular conclusions among scholars yet the latter is also true. It would be interesting to see researches conducted from such a perspective. An example of its real time application would be say, "A Replication of Ethnic Animosity and Presidential Election Outcomes 2022 in Kenya". This can be a study undertaken if at all it has been done before as a way of confirming some truths or contradictions/divergences. Replication (act of copying or reproducing something) is used extensively in research in science and technology, but it is more difficult in social science where controlled experiments are generally not as available as they are in the "purer" sciences. "Reality" is a social construct in the social sciences, unstable, and subject to continuous change. It is more dependent on culture than pure scientific research is. One might ask why replication or other indirect tools such as bibliometrics should be used to determine the benefits of social science research. In fact, one might argue that replication is itself a form of research and not just a method of evaluation.

Weiss (1972) maintains that the repetition of results is the basis of scientific generalization, yet replication remains a rarity in evaluation research. As argued further by Feigenbaum and Levy (1993), the ability to reproduce a researcher's methods in order to validate results is a clearly recognized requirement of scientific inquiry and is *de rigueur* (out of strictness) in the sciences. Hence, it should become a part of social science research evaluation as a first step in establishing the benefits of a particular work or group of studies.

Social sciences (Akhtar, Undated) are not exact science like physical sciences in studying human beings. Human nature and man's environment are so complex, that it is more difficult to comprehend and predict human behavior than the physical phenomena. Social science research is a systematic method of exploring, analyzing and conceptualizing human life in

order to extend, correct or verify knowledge of human behavior and social life. Social research seeks to find explanations to unexplained phenomena, to clarify the doubtful and correct the misconceived fact of social life. It involves the application of scientific method for understanding and analyzing of social life in order to correct and verify the existing knowledge as a system. The main idea behind social research is to discover new inter relations, new knowledge, new facts and also to verify old ones. Human behavior may be involved by certain values and laws.

Measuring 'Influence' in Social Sciences

Influencing is defined as work that is used to politically motivate an institution or organization's decisions in a certain direction. While advocacy, lobbying, negotiation and knowledge uptake are some forms of influencing (Jones, 2011; Davies, 2011b). To emphasize as Jones and Davies affirm, constructs such as; *contradictions, effectiveness, interplay, and dynamism* are useful in measuring decisions in the realm of social sciences. In their use there exist qualitative and quantitative projections depending on how a researcher will choose to carry out a study. Assertively measuring influence in social science is to panoramically contemplate its parameters as a behavior mechanism.

There are many guides on how to measure influence (Unicef, 2012). Debate over the effectiveness of such guidance still lingers among many. Some authors (Coe & Schlangen, 2011) argue that finding evidence to evaluate influence as a form of accountability is highly problematic. Others say (Tsui, 2013) that it is possible to evaluate influence, but that not enough rigour has been applied to methodologies.

Using political science as an example for the many social sciences, what to measure in a study is dictated by many factors among which is guided by empirical interest. It is therefore acceptable to approach a study from any trajectory that deals with behavior and its measurement can then be determined by "***how you***" (observation, gathered archival data, obtained scholarly excerpts, obtained verbal evidence) undertake the study to confirm your interest. In agreement to this, March (1955) asserts, the science of politics is a science of human behavior. It concerns itself with a specific segment of the activities of humans - those which either take place in, or have a clearly discernible effect upon, the formal governmental machinery of the community. The characteristic feature of a political scientist, therefore, is not his unique theoretical framework but his special empirical interest.

It is our due consideration that a discipline should have ability to reinvent itself with interrogative aspects of research since all studies are in constant motion but interconnected to the golden past. March (1955) construes, it is the responsibility of political science to develop those elements of behavior theory that are particularly relevant for the analysis of action in the sphere of politics. Nonetheless, according to Lipset et'al (1954), much of empirical and theoretical work in political analysis is organized around the observation that many political data can be conceived to represent results of mechanisms for decision-making used (consciously or unconsciously) by individuals or collectivities. In a similar fashion (Edwards, 1954), students of a significant number of other types of behavior have tended to formulate their problems within a decision-making framework.

Moreover, March (1955) posits, when one examines these apparently disparate branches of behavior theory, it is difficult to avoid the conclusion that there exist potentially fruitful parallelisms among such theories as those of consumer behavior, administrative behavior, price setting, legislative enactments, propaganda, learning, foreign affairs, and social control. However, once decision-making is accepted as one of the key focal points for empirical social science, *the necessity for exploring the operational meaning and theoretical dimensions of influence is manifest*. The interest in influence stems, in turn, from its conception as the fundamental intervening variable for the analysis of decision-making. *Influence is to the study of decision-making what force is to the study of motion* – a generic explanation for the basic observable phenomena. To observe force on its on is a futility but one will carry out successfully an examination of force by observing motion and acceptably make inference, this is similar to influence in decision-making studies.

Despite the ability to measure influence, there must be readiness to counter the inherent challenges that are associated to such studies; ability to counter the obstacles is what elevates ones research. Arguably, (Hovland, Janis, and Kelley, 1953), the empirical study of influence has been hampered by a tendency toward adhoc formulations. Operational definitions of influence for research purposes tend to be markedly divergent and their relationship to the general concept at best vague. Although it may be desirable or necessary to consider different types of influence under different conditions, one should be in a position to define the way in which any given type (or its concomitant index) is related to a theoretically formulated variable. This raises the problem of generality. Secondly, the difficulties of identification in a system of interacting variables (Koopmans, 1953) have been explored most fully by economists and it results into the problems in determining influence order.

The third challenge deals with the problems of unanticipated or delayed consequences. Influence is frequently defined in terms of behavior change over a given time interval and measured by overt motor or verbal activities. Such procedures have the major theoretical objection that they ignore changes in the individual's latent readiness to act. An adequate theory of influence must be more general than that implicit in a simple stimulus-response treatment. A slightly different manifestation of the same difficulty

results from the failure to account for the side effects of particular influence procedures (Hovland, Janis, and Kelley, 1953).

Finally, the problems of the dimensionality of influence often discourage its use in many a study. This characterizes an influence (March, 1955) relationship between two individuals. In order to make such a characterization, it is necessary to know the dimensions for which measurements are required. Such a relation frequently cannot be defined by simply citing a single influence index. On the contrary (Rubenstein, 1953), the evidence that exists indicates that the influence relationship between two individuals varies according to the subject matter under consideration.

In summary, the definition of influence (Simon, 1952) as *that which induces a change in the state of the organism* makes the problem of specifying that state in meaningful terms of paramount concern for the theory of influence. To any student of general scientific methodology, these comments on influence ring a familiar bell. As is pointed out, there exist some key similarities between what is ordinarily considered to be influence and that which is considered under the more general rubric of causality. March (1955) however states, 'influence' ought to be specified as, consider the individual in a specified environment (i.e., reacting to a set of specified cues, both internal and external).

If one would wish to give example of measuring influence, then an examination of politics in relation to conflict or otherwise would make it measurable since it is possible to describe such a relationship at the same time quantifying it in terms of effects. The onus should be on the person undertaking such a study and abilities to decipher 'measurability of influence' whether in numbers or outside statistics.

Applicability of 'Influence' as a Measurable Tool in Social Sciences

Influence according to (Cambridge Dictionary, 2020) defines it as capacity to have an effect on the character, development, or behaviour of someone or something, or the effect itself. Analyzing influence under SMART (*Specific, Measurable, Achievable, Relevant, and Time based*) objectives tag acronym. Such objectives are put in place by parameters that bring structure and tractability together. Such goal setting creates a verifiable trajectory towards a certain objective within a workable timeline. In our argument, influence within the realms of applicability as an objective will be measurable when in social science it is specific to an action, behavior, or otherwise within a time frame on a particular event/phenomenon, and done under good methodology this will be achievable.

The tag describes the results (end product) of the work to be done, how will you know it meets expectations (against some standard)?, can the measurable objective be achieved by the person?, relevant answers the questions, and when will it be done? In carrying out research, the intention of the researcher should be to answer these questions and definitely when where it is fully and authentically indicated the aspect of measurability can be concluded to exist. More to this is to reason for example, if influence can be observed, traced, explained, and documented then influence becomes measurable. However, to note there is nothing like consensus in social and behavioral sciences such as psychology, sociology, political science, economics, anthropology, and many more in their conclusions to specific studies yet this may not indicate weaknesses to outcomes.

There are multiple forms of influence in use in order to achieve organizational or research goals. This essentially requires that multiple approaches should be used to evaluate programmes (Kabeer, 2001). We present here a model that can be contextualized in application of influence by Tsui (2013).

Table 1:Typological Influence Monitoring and Evaluation Activities and Tools

Though it has been solely applied in relation to 'influence', it makes it easy for researchers to use this tool for various research based actions and observations. The tool specifically describes type of influence, where/what to influence, what to measure, and the how to measure. These are fundamentally the common asked questions by all calibers of researchers, sometimes incurably for good research desired by maiden objectives.

Types of Influencing	***Where/ What to influence***	***What to measure - Outcomes***	***How to measure - Tools***
Evidence and Advice	Policy discourses & Debates	Outputs	Evaluating Reports, Policy Briefs, Websites, etc
	Meetings	➢ Uptake and Use ➢ Influence	➢ Logs & Analysis ➢ RAPID Outcome Assessment (RAO); ➢ Episode Studies (ES); Most significant ➢ change
Public Campaigns/ Advocacy	Public and Political debates	Target audience, Attitudes, Behaviours	Surveys, Focus Groups, Direct responses
	Public meetings, Speeches, Presentations	Media attention	Media tracking logs, media assessment
	Television, newspapers, radio and other media	Media framing and Influence	Framing analysis, coverage
Lobbying and	➢ Formal meetings	Actors, Relationships, Policy Processes, &	➢ Recording meetings;

Negotiation	➢ Channels ➢ Membership and participation	Institutions	➢ Tracking people; ➢ Interviewing Informants; ➢ Probing influence
Soft Power	➢ Informal meetings ➢ Collaborative group setting	Influence of decision making	➢ Interviews, ➢ Probing influence

Source: *Tsui, 2013*

Jones (2011) gives three methods of measuring influence based on DFID's draft How-to Note: Evaluating Influence. Theory based methods (TBM), case based methods (CBM), and participatory based methods (PBM). In this article we apply TBM and CBM for illustrating the application of influence. Under every method, there are some sub-methods which also assist in the measurement of influence in social sciences. However, in our view, PBM may prompt measurement of influence through individual participation cases. Measuring influence using TBM and CBM are illustrated below;

1.0 Theory-based methods (TBM)

Under TBM, there are three ways in which influence measurement can be approached. These are general elimination, contribution analysis, and process tracing.

General Elimination Method

This is an outcome based method for measuring influence. Its major concentrate is the result as in in electoral campaign where the winner is known after elimination of many through the electoral results both in nominations and general elections. In this case, influence can be measured in studies involving many competing variables. This method entails systematically identifying and then ruling out alternative causal explanations of observed results. Despite considerable systematic effort, it does add rigor to an evaluation's methodology and can reach a high level of confidence. One example of the use of this method can be seen in Patton's (2008) evaluation of an American campaign to influence a Supreme Court decision.

Contribution analysis

The measure of influence is viewed from a theory of change and builds up evidence to demonstrate the contribution made by the activity towards observed outcomes. Influence is inferred if a contribution has been developed, the activities planned have been carried out, and the chain of expected results has occurred (White and Phillips 2012). Contribution analysis is not used for assessing outputs or outcomes; its value is in assessing the contribution that an intervention has made an outcome (Mayne, 2008).

Process Tracing

Under theory based methods, influence can be measured through *process tracing*; it is a data analysis method for identifying, validating, and testing causal mechanisms within case studies. It is a robust technique to test theories of causality in action by examining the intervening steps. It is well-suited to studying decision-making processes and can capture emergent processes because it traces events over time, and it permits the study of complex causal relationships and provides a strong basis for inferring cause (Reilly 2010).

2.0 Case-based methods (CBM)

A case study is a detailed and intensive examination of a specific unit of analysis – a community, an organization, a family, an event, a geographical area, and even an individual person (Bryman, 2008). Influence measurement under CBM can be undertaken in three major ways; Single and Multiple case studies, Social Network Analysis (SNA), and Discourse Analysis (DA). Studying influence under single and multiple case studies cuts across SNA and DA. For *Social network analysis m*easuring influence on social networks can be possible through observing behavioural relations among the actors; superiors, subordinates, leaders, and subjects. Social network analysis (SNA) is a body of methods developed for analyzing social networks and particularly the structure of relationships between actors (Davies, 2009). Under DA, influence is measured by the linguistic analysis of communication investigating people's expressed beliefs and opinions, the messages conveyed, strategies used in communication, and the power relationships through language use (Bryman, 2008).

Conclusion

This study concludes that indeed 'influence' is measurable in social sciences. The uniqueness of social sciences amidst other sciences opens it to unique view of study variables and some form of flexibility. It is again concluded that 'influence' as a construct of persons and activities in society has capacity to have an effect on the character, development, or behaviour of someone or something, or the effect itself. This gives it measurability attributes. There exist multiple forms of influence in use in order to achieve organizational research goals which then requires that multiple approaches should be used to evaluate them. Like any construct to be measured, the ability to measure influence ought to entail readiness to counter the inherent challenges that are associated with it.

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