

Variables Influencing Case Study Research Design in Public Administration

A Conceptual Framework

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ABSTRACT

This article focuses on the variables influencing case study research design in Public Administration and proposes a conceptual framework for an increased understanding of the concept 'case study'. The framework has been developed through a comprehensive review of the literature, and through the application of the eight steps for a concept analysis as suggested by Walker and Avant (2013). This framework consists of seven conceptual components related to the typical choices researchers have to make in planning and doing their research in order to meet the expected outcome of the research project. Three of these components, namely the case as an instance of a larger phenomenon or unit of analysis, case selection strategies and case study designs, have been identified as defining attributes of the concept. The conceptual framework serves as a thinking tool for an integrated and deepened understanding of the concept and for assessing and enhancing the practice of case study research in Public Administration.

BACKGROUND AND RATIONALE

This article contributes to the literature on case study research in Public Administration by proposing a conceptual framework that could be applied for understanding and assessing Public Administration case study research. This framework determines the components related to crucial choices researchers

have to make in planning and doing their research in order to meet the expected outcome of the case study research project. The framework has been developed through a comprehensive review of the literature by way of a desktop analysis. This article subsequently explains the methods followed in this research, as well as the results of the conceptual analysis of the concept 'case study'. It also provides an identification of categories of cases in Public Administration research, the purposes of case studies, the research design and methods of data collection and analysis and the expected outcomes of case studies in Public Administration.

Case study research in Public Administration has come of age. This category of research has been seen to grow, not only in Public Administration (Brower, Abolafia and Carr 2000; McNabb 2010), but in various other social sciences such as Psychology (Hersen and Barlow 1976), Sociology (Hamel 1992 and Ragin and Becker 1992) and Political Science (George and Bennett 2005 and Gerring 2004).

The long standing popularity of case studies in Public Administration was confirmed through two independent studies by McCurdy and Cleary (1984) and Perry and Kraemer (1986:223) 30 years ago. The study by Perry and Kraemer (1986:223) revealed that approximately 20% of articles published in the Public Administration Review (PAR) between 1975 and 1984 were case studies. This growing trend was confirmed by Brower, Abolafia and Carr (2000:373) who found, 14 years later, that the bulk of the articles in the following three major Public Administration journals, reported on case studies:

- PAR: 94%
- Administration and Society (A&S): 82%
- Journal of Public Administration Research and Theory (JPART): 72%

The popularity of case studies was not only evident from the articles published in scholarly journals, but also in doctoral theses. In 1994 Adams and White (1994:574) found that 69% of dissertations (doctoral theses) reported on case studies. Their findings were confirmed by Orosz, McKenna and Reding (1997:1983) in a similar study three years later. The above studies were conducted mainly by researchers in the United States (US) who reported on completed research projects that had been published in the US. These researchers all confirmed a strong preference for case studies by Public Administration researchers. Despite its apparent popularity among researchers, case study research remains one of the most puzzling and contested research endeavours (Adams and White 1994; Orosz, McKenna and Reding 1997; Perry and Kraemer 1986 and Yin 2014:3).

A preliminary literature review revealed a certain degree of ambiguity about the meaning of the concept 'case study research' within Public Administration.

For example, Brower *et al.* (2000:371) refer to a case study as a research design, McCurdy and Cleary (1984:49) regard a case study as a technique while other scholars refer to a case study as an approach (Adams and White 1994:567), a methodology (Perry and Kraemer 1986:224) or a method (Garson 2002:209). Despite the ambiguousness of the concept 'case study', several authors criticised case studies in Public Administration as having limited value for Public Administration theory building (McCurdy and Cleary 1984:49) and being of low quality (Adams and White 1994:573 and Perry and Kraemer 1986:224). However, irrespective of the apparent popularity of case studies in Public Administration research, there seems to be an absence of a generic conceptual framework for understanding the defining attributes of the concept 'case study' (Walker and Avant 2013:168) as well as assessing the outcomes of a conducted case study research project (Flybjerg 2006:14; Gerring 2007:115; Yin 2009:47).

RESEARCH DESIGN AND METHODS

Notably, this article has a non-empirical research design. The research consisted of a conceptual and theoretical study, using a concept analysis technique to "handle and clarify" (Wilson 1963:vii) the concept 'case study' in order to craft a conceptual framework. The authors regard a conceptual framework as "the current version of the researcher's map of the territory being investigated" (Miles and Huberman 1984:33). The focus of the investigation on which this article is based, is research methodology in general and the concept 'case study' as a qualitative research method in particular. The conceptual framework to be developed will thus serve as a map in the quest for the meaning of this phenomenon "by identifying and specifying the conditions under which any entity or phenomenon is (or could be) classified under the concept in question" (Furner 2006:233).

For the purpose of this study, the authors applied the eight steps of concept analysis as suggested by Walker and Avant (2013:165) in their seminal work *Strategies for Theory Construction in Nursing* to analyse the 'case study' as a research method:

- Select a concept.
- Determine the aims or purposes of analysis.
- Identify all uses of the concept that you can discover.
- Determine the defining attributes.
- Identify a model case.
- Identify borderline, related, contrary, invented, and illegitimate cases.
- Identify antecedents and consequences.
- Define empirical referents.

By applying these steps, the authors aimed to obtain optimal clarity regarding the characteristics and meaning of the selected concept (Trafford 2008:274 and Walker and Avant 2013:165). Bearing in mind Trafford's (2008:274) view of the three origins of conceptual frameworks (theoretical perspectives obtained from reading scholarly literature, personal experiences and assumptions, and reflections on the topic), this conceptual analysis relied mainly on scholarly literature and reflections on the interpretation and interrelationships of the various related concepts and variables influencing the phenomenon. In order to identify the key concepts related to 'case study research', the researchers undertook a thorough review of the literature from various subject fields employing case studies, such as Public Administration, Psychology, Business Management and Sociology (Adams and White 1994:573) as well as authoritative research methodology literature. Databases such as Sage research methods and Taylor and Francis were instrumental in providing access to most of the journals consulted. Articles and books containing the concepts 'case study', 'case study method', 'case study design', 'case study strategy', 'case study methodology' and 'case study approach' in their titles or abstracts were selected and thereafter organised according to a funnel approach (Hofstee 2006:94).

CASE STUDY RESEARCH: A CONCEPT ANALYSIS

This study analysed the concept 'case study' by means of the above-mentioned framework developed by Walker and Avant (2013:166). This section highlights *inter alia* the meanings of phenomena related to 'case study research', the categories of cases which can be studied in Public Administration, the various strategies for selecting cases to be studied, the possible purposes of a case study, the methods for collecting and analysing data for case studies and the expected outcomes of case studies.

Selection of concept

In selecting the concept to be analysed, the authors took note of the distinction made by Pauw and Louw (2014:8) between words and concepts, with words having various meanings and concepts having one meaning, which can be expressed in different words. Considering that concepts are regarded to be thinking tools (Pauw and Louw 2014:8), the authors have selected the concept 'case study' not only due to the apparent popularity of case study research in Public Administration, but specifically to clarify the ambiguity in the use of this thinking tool (see Adams and White 1994:567; Brower *et al.* 2000:371; Garson 2002:209; McCurdy and Cleary 1984:49 and Perry and Kraemer 1986:224).

The purpose of the concept analysis

The purpose of analysing the concept 'case study' is thus to clarify the meaning of the concept and to use this concept as a thinking tool by crafting a conceptual framework mapping the locus of the case study research in Public Administration. Considering the existence of "normal, ordinary usage of the concept and the scientific usage of the same concept" (Walker and Avant 2013:167), the conceptual analysis and the subsequent conceptual framework will also serve to explain its distinctive scientific meaning in relation to other related but different concepts.

Uses of the concept

Similar to Pauw and Louw (2014:8) the authors also regard concepts as thinking tools and consequently assume that a concept with a clear meaning, will significantly contribute to clarity of thinking, informed decision-making regarding the planning and executing of a research project, as well as to the scholarly reporting on research (Walker and Avant 2013:168). Being a thinking tool, the concept 'case study' is expected to distinguish the specific phenomenon from other related though also different phenomena. The distinctiveness of the phenomenon is imbedded in the defining attributes of the concept and its broader methodological and disciplinary application framework.

Determine the defining attributes

The defining attributes of a concept, referring to those characteristics that are most commonly associated with the concept, are indeed "the heart of concept analysis" (Walker and Avant 2013:168). A search for the defining characteristics of the concept 'case study', revealed two dimensions of the concept, namely activity (study) and object (case). The activity refers to strategies for selecting cases, case study designs, and methods of data collection and analysis. The object refers to the concept to be selected, model cases of the concept, as well as borderline, contrary and illegitimate cases of the concept, as well as antecedents and consequences of the selected concept.

Single instance of a specific phenomenon

It seems that the most defining attribute of this concept is its nature, namely being a single instance of a specific phenomenon (Rule, Davey and Balfour 2011:302). This defining attribute is also emphasised by Stake (1995:xi) referring to a case study as the "study of the particularity and complexity of a single case". Gerring (2004:342) also draws attention to the singularity of cases by referring

to case studies as the intensive study of a single unit in order to understand a larger class of similar units.

Considering that a case or a single instance of a phenomenon or event (Odell 2001) has been shown to be a key defining attribute of the concept 'case study', it is crucial for a deeper understanding of case studies in Public Administration to also understand the concept 'case'. A review of the general scholarly literature on case studies, revealed various examples of cases, namely persons (Gerring 2004 and Walshe, Caress, Graham and Todd 2004), processes (Andrade 2009), organisations (Walshe *et al.* 2004), programmes (Baxter and Jack 2008), or revolutions (Gerring 2007). In Public Administration research, Adams and White (1994:573) provide the following examples: single, small country agencies, state governments, and a policy area of the federal government. The larger class of similar units or cases refers to the units of analysis of the study (Gerring 2004:342; Rule *et al.* 2011:302 and Stake 1995:xi), which is not regarded as a defining attribute of 'case study'.

Closely related to the single nature of the object dimension of the concept, is the activity (study) dimension of the concept. The defining attributes of this dimension include utilising an appropriate case selection strategy (Yin 2009:54) for the selection of the single instance (case) and the following of a single or multiple research case design (Brower *et al.* 2000:371; Yin 2009:54).

Strategies for selecting cases to be studied

The case selection strategies are regarded as defining attributes of the concept 'case study' as these strategies meet the criteria of representativeness and purposiveness ensuring the selection of information of rich cases (Flyvbjerg 2006:230). The logic of selecting cases is theoretical with the goal of replicating or extending emergent theory (Daymon and Halloway 2011:120; Meyer 2001:333). The literature review revealed the existence of distinct selection strategies for selecting, *inter alia*, critical cases, extreme cases, representative or typical cases, revelatory cases, longitudinal cases and replication logic in multiple case studies (Bengtsson 1999:3; Flyvbjerg 2006:230; Yin 2009 and Zongozzi 2015). The case selection strategies, each with a sound theoretical basis that aims to achieve a specific goal, are discussed briefly as follows:

Critical case

A critical case selection strategy, also known as a crucial case selection strategy (Flyvbjerg 2006:231), is followed to challenge, confirm or extend a hypothesis (Bengtsson 1999:3 and Yin 2009:47). These strategies search for "most likely" or "least likely" cases and cases of strategic importance in relation to a general problem and are likely to either confirm or falsify hypotheses and propositions. Instead of selecting a representative sample, a strategic sample is selected with

the intention that a proposition or hypothesis will be falsified or confirmed if specific results are achieved. Therefore, in a critical case study a “clear set of propositions as well as the circumstances within which the propositions are believed to be true” are specified by the relevant theory (Yin 2009:47).

Extreme case

The second case selection strategy entails the selection of extreme or unique cases applicable when the case as variation or example of the specific phenomenon or unit of analysis, is rare or unusual and thus worth documenting and analysing (Bengtsson 1999:3 and Yin 2009). Extreme cases are selected for the purpose of hypothesis generating studies (Gerring 2007:89).

Typical or representative case

This is the third case selection strategy involving the selection of representative or typical cases whose goal is to “capture the circumstances and conditions of an everyday or common place situation” (Yin 2009:48). A typical case study is by definition representative of the unit of analysis (Gerring 2007:89).

A typical example of this selection strategy is a study by Madzidzela (2008) with the title *An analysis of factors affecting housing delivery in the Nyandeni Local Municipality with specific reference to the Extension 4 Housing Project: A case study of Ward 21 in Ngqeleni*. The Ngqeleni area is comprised of wards 12 to 26. This case became a typical case as the entire Extension 4 was established in 1997. Ward 21 was selected because of its cross-case relationship (Gerring 2007:89) with the other wards, in terms of its period of existence and lack of clean water and sanitation.

Revelatory case

The fourth strategy comes as an opportunity for researchers to investigate a phenomenon that was previously not accessible in their specific social science discipline. This strategy entails the selection of revelatory cases (Bengtsson 1999:4; Yin 2009:48). As a revelatory case study is used to explore a phenomenon never studied before, there is an absence of theory on the phenomenon which makes it unlikely to formulate hypotheses to be tested (Bengtsson 1999:4). One may regard this type of case selection strategy as more applicable to exploratory studies because of the absence of theory (Kohn 1997:3; Babbie and Mouton 2001:79–81).

Longitudinal case

Researchers can also study the same case at two or more different points in time through the selection of the longitudinal case. Gerring (2007:90) refers to these cases as pathway cases. In this instance, the theory of interest would

likely stipulate how certain conditions change over a specific period of time, and the desired intervals will presumably reflect the anticipated stages at which the changes should reveal themselves (Yin 2009:49). A Public Administration example of a case or analogy would be to conduct a study on the implementation of a specific public policy (the case) pre-1994 and post-1994.

Replication logic (Multiple-case study design)

Although this article has not yet explained what a multiple-case study design is, it is worth detailing it in the context of this section as it forms part of the case selection strategy. Replication logic which is relevant in multiple-case studies (Yin 2009:54) consists of the selection of cases using two selection types: First, the researcher can select similar cases with similar predicted results. This is known as literal replication. Choosing similar cases could imply that the contextual conditions are the same in all cases. Secondly, cases can be selected based on the assumption that they will produce contrasting results – specifically for theoretical replication purposes (Bengtsson 1999:3 and Yin 2009:60). In this instance cases may be purposefully selected because of their different conditions with the assumption that they will produce contrasting results.

Nevertheless, in a study conducted to analyse South African Public Administration case study dissertations between the periods 2005 to 2012, Zongozzi (2015:80) revealed an imprecise articulation of reasons for the selection of specific cases. As these reasons are supposed to justify the selection strategy used by the researchers, this lack of information may endanger the reliability of their findings.

Case study design

This section will provide a review of the literature regarding the identified case study designs below.

Single-case study design

So far, two types of case study designs have been identified, namely the single- and multiple- case study designs (Yin 2009:47 and Baxter and Jack 2008:548). The single-case study design allows the researcher to conduct an in-depth (but narrow) exploration of a phenomenon wherein the interest is on small numbers which are carefully examined at a single or delimited point (Daymon and Holloway 2011:119). This type of design can be divided into two sub-categories, firstly a single-holistic design where the focus is on one case (Yin 2009:50) and conclusions are drawn about the phenomenon as a whole (Bengtsson 1999:4). Secondly, the other sub-category of a single design is a single-embedded case study design which can have more than one unit of analysis (Yin 2009:50). The

conclusions are therefore drawn by studying and analysing the subunits of the investigated phenomenon (Bengtsson 1999:6).

The reviewed literature associates this design with specific intended outcomes, for example theory or hypothesis testing or theory building by either confirming, challenging, or extending a theory (Flybjerg 2006:14; Gerring 2007:115 and Yin 2009:47). To be specific, theory or hypothesis testing as the specific intended outcome in case study research can be associated with critical and extreme case selection strategies as discussed above. Theory testing means investigating, to determine whether a specific theory is supported by empirical facts. For instance, if a researcher has a theory about a specific issue, the researcher embarks on a study regarding that issue to determine if the facts support that particular theory (Hillebrand, Kok and Biemans 2001:652).

On the other hand, theory building is a possible outcome of empirical case study research (Wacker 1998:373–375). According to Andrade (2009:45) the act of building theory from case studies inductively is more than simply generating a hypothesis, where the alleged “goal is not to conclude a study but to develop ideas for further study” (Yin 2009:120). Reynolds (as cited in Lynham 2002:225) proposes a theory building method called a research-to-theory strategy. The author associates his strategy with the procedure followed when developing the laws of nature by carefully examining all the data available in the following manner:

- By identifying a phenomenon and listing all its characteristics.
- Measuring all the characteristics of the phenomenon in diverse situations.
- Carefully analysing the resulting data to determine if any systematic patterns among the data are worthy of further attention.
- Once the patterns are found, “formalization of these patterns as theoretical statement constitutes the laws of nature” (Reynolds as cited in Lynham 2002:225).

Meanwhile, Carlile and Clayton (2005:2) suggested a three step iterative process of theory building by observation, classifying and defining relationships. The researcher observes a phenomenon, provides a description of that phenomenon and then measures what he or she sees. The aim of describing the phenomenon is to allow classification of it into categories. Subsequently, the researcher explores the relationship between the categories by defining attributes and the outcomes observed.

Andrade (2009:45–46) seems to provide an important input by advocating for a combined fashion of a case study with grounded theory as a systematic process for substantive theory building. The author advocates for the complementary nature of the two approaches as he asserts that while the case study is useful in defining the study boundaries and the unit of analysis,

grounded theory focuses on the existing processes where theory will be ultimately constructed. This strategy is almost similar to the strategy applied in this study although this article used a triangulation of grounded theory with a concept analysis method. Hence, the envisaged role of the case study by Andrade seems to overlap with that of Walker and Avant's (2013) conceptual analysis as explained above. Nevertheless, this article supports the idea of separating the roles into literature reviewing and analysis to simplify the process rather than attempting to use a *one method fits all* approach.

Multiple-case study design

On the other hand, case study researchers can select a multiple-case study design which focuses on two or more cases. Each case within these cases can involve either holistic or embedded units as in the single-case design (Yin 2009:59). The multiple-case study design should not be confused with the single-embedded case study design because in this case the context for each of these cases is different. As opposed to the single design with embedded units whose goal is to understand either one unique or critical case, the multiple-case design enables the researcher to analyse phenomena within a setting and across settings (Baxter and Jack 2008:550). In a multiple-case study design, the researcher focuses on making a comparison between two or more cases by exploring their similarities or differences (Leedy and Ormord 2010:137 and Daymon and Holloway 2011:119) or captures varieties between cases (Schurink and Auriacombe 2010:438). By doing this, the multiple-case study design allows the researcher to generalise to some extent to a wider universe (Daymon and Holloway 2011:119).

Generalisation of findings is one of the intended outcomes of multiple-case study design. Generalising in this instance is based on the replication logic, namely the degree to which a study repeats the results or findings of a previous study, thus replication can be claimed when two or more cases support the same theory (Rowley 2002:20–21). It is achieved by comparing and contrasting the conclusions from one case with the results from another case (Bengtsson 1999:2). This type of replication study requires the development of a rich, theoretical framework stating the conditions under which a specific phenomenon is more likely to be found (literal replication) as well as the conditions under which it is not likely to be found (theoretical replication) (Yin 2009:54). There are two ways of making generalisations, namely statistical and analytical, the latter is more relevant when conducting case studies as opposed to statistical studies (Daymon and Holloway 2011:124-126; Yin 2009:38 and Rowley 2002:20).

The choice of a specific case study design has direct implications for the choice of data collection and analysis methods, as discussed in the next section.

Methods for collecting data

Case studies are normally placed within an array of methods of a qualitative design. The literature, however, shows that the case study goes beyond being a mere qualitative design by using a combination of both qualitative and quantitative evidence (Yin 2009:19). The literature shows that case studies use multiple sources of evidence (Rowley 2002:18; Yin 2003:13; Walshe, Careless, Graham and Todd 2004:678; Grunbaum 2007:80; Van Wynberghe and Khan 2007:2 and Andrade 2009:44 and Yin 2009:18). The research of these authors is documented in a study analysing the South African Public Administration case study dissertations (Zongozzi 2015).

The qualitative and quantitative sources of evidence reported to be used in qualitative research, not excluding case studies, include focus group interviews, participant observation, document analysis and the study of artefacts (Bassey 1999:1, Creswell 2013:105; Yin 2009:11 and Zongozzi 2015). Surveys, on the other hand, have been identified as the instrument or technique used to gather data in case study research from a quantitative perspective (Zongozzi 2015). The use of quantitative data in case studies, however, may not mean that the study is quantitative. Instead, it may be merely for the purpose of triangulation.

Methods for analysing data

It can be expected for the case study design to allow a wide spectrum of data collection methods and techniques considering its diverse case study designs and expected nature of outcomes. Yin (2009:136–156) identified pattern matching, explanation building, time-series analysis, logic models and cross-case synthesis, as techniques used to analyse case study evidence.

Pattern matching

Pattern matching involves specifying post-intervention results that will either show effects or no effects through a series of data for different intervals over a specific period of time and with enough data pre-intervention to make claims for changes or improvements to be credible, thus, it can be regarded as a predictive approach. For instance, if a researcher analyses accident statistics for one year pre-intervention and the results of the post-intervention rates appear to have improved, it might mean that that one specific year was not as bad as it appeared and that the pattern for the previous years had been no different from the improved rates. Whereas, if data for four or five years prior to the intervention, and the post-intervention rates several years later are lower, or were declining steadily, then one can presume that there is some causal relationship (Gilham 2010:82). Pattern matching also compares an empirically based pattern

with a predicted one of which the results can strengthen the validity of the case study if the patterns coincide (Yin 2009:136).

Explanation building

Another case study data analysis technique is explanation building, a special type of pattern matching that analyses data by building an explanation about the case through the following iterative process: Beginning with an initial theoretical statement or proposition about the specific case; comparing the results from an initial case against the previously mentioned initial statement or proposition; revising the statement or proposition; comparing other details of the initial case against the revision; comparing the revision with the facts of a second, third or even more cases; and repeating the same procedure as many times as necessary (Yin 2009:141–143).

Time-series analysis

Time-series analysis is another technique that can be used to analyse case study evidence. It involves matching the observed (empirical) trend with either the theoretically significant trend (specified before the beginning of the investigation) or with some rival trend, which is also specified earlier. The time-series involves different designs, namely; a simple-time series in which there may only be a single dependent or independent variable, a complex-time series wherein the trends within a given case are said to be complex, for example when an investigator identifies some rise followed by a decline trend within the same case instead of only rising or declining (or flat) trends, and a chronological compilation of events allowing the researcher to trace events over time (Yin 2009:144–148).

Logic models

Researchers can also use logic models when analysing case study evidence especially in case study evaluations. A logic model “deliberately stipulates a complex chain of events over an extended period of time” (Yin 2009:149). This is another special form of pattern matching involving the matching of the observed events (empirically) to theoretically predicted ones (Yin 2009:149).

Cross-case synthesis

The last technique is cross-case synthesis which is useful specifically in multiple-case studies as opposed to the other above-mentioned techniques which can be used with either of the case study designs. This technique treats each individual case study separately where the investigator begins by creating tables that display data from the individual case following some uniform framework. The

Table: 1: Categories of cases and units of analysis in Public Administration research

Category of units of analysis	Description of category	Possible cases
Individuals	Where a human being is the unit of analysis, it means that a researcher seeks to know more about the behaviour, orientations or characteristics of an individual human being (Babbie and Mouton 2001:648 and Houston and Delevan 1990:679).	As an individual is already “a single instance” (Odell 2001), a case study of an individual is not possible. This category of units of analysis is thus excluded from case study research.
Groups or collectives	Groups or collectives refer to “people who are (or define themselves as) members of larger geographical, political or cultural entities”. These may include, for example nations, developing countries, provinces, cities, towns, communities and tribes (Mouton 1996a:48).	Examples of cases are thus a single nation, or a group or individual within that nation, a single country within the category of developing countries, a single province within a category of provinces, or a region within a province, a single city within a collection of cities, or a suburb within a specific city.
Organisations and institutions	This category consists of groups of people with a formal structure. Typical examples include the South African Defence Force, Public Service and the Office of the Premier (Wessels and Thani 2014:170).	If the unit of analysis is national government departments, the South African Defence Force may be a case. If the unit of analysis is the South African Defence Force, the Air Force may be a case.
Social actions and events	The researcher is interested in actions as a phenomenon rather than the individuals, group or organisations involved and their actions or behaviour (Babbie and Mouton 2001:87). Public Administration examples may include public participation and intergovernmental relations (Wessels and Thani 2014:170).	If public participation is the unit of analysis, small and big local authorities in Norway and Sweden may be the cases.
Social artefacts or cultural objects	These entail the “study of the products of human beings and their behaviour”. Examples include code of conduct, books, scientific journals and articles in these journals (Wessels and Thani 2014:170).	If the unit of analysis is accredited South African Public Administration journals, <i>Administratio Publica</i> is a case.

Category of units of analysis	Description of category	Possible cases
Interventions	This category refers to the “set of actions and decisions that are structured in such a way that their successful implementation would lead to clearly identifiable outcomes and benefits” (Mouton 2001:88). Examples may include “legislation, policies, plans, programmes, courses and systems” (Wessels and Thani 2014:170).	If the unit of analysis is policies of the national government in South Africa, the <i>Policy for the Provision of Distance Education in South African Universities in the Context of an Integrated Post-School System</i> is a case.
Constructs	This category consists of theories, models, frameworks, concepts and research methods (Babbie and Mouton 2001:16).	The concept ‘case study’ is a case within the unit of analysis ‘research approaches’.

Source: (Adapted from Wessels, Pauw and Thani 2009:10–12) and Wessels and Thani 2014:170)

examination of these tables for cross-case patterns relies more on argumentative interpretation than numeric tallies (Yin 2009:160).

Model cases for the concept ‘case study’ in Public Administration

Crucial to the understanding of any concept, and in this case the concept ‘case study’, is the identification of a model case in which all the defining characteristics are present. In our discussion of the defining attributes of a case study, we have referred to the activity and the object (case) of a case study. This section specifically focuses on the ‘case’ aspect by referring to model cases. Wilson (1963:28) describes a model case as “an instance which we are absolutely sure is an instance of the concept”. A model case of a concept is thus an example of the application of that concept signifying all the defining attributes of the concept (Walker and Avant 2013:168). A model case is thus a “pure case of the concept, a paradigmatic example, or a pure exemplar” (Walker and Avant 2013:168).

Considering that one of the defining attributes of a case study is the selection of a case as a single instance of a phenomenon, one can thus expect that model cases in Public Administration case studies will be single instances of phenomena which fall within the specific categories of units of analysis (see Table 1). Model cases in Public Administration case studies will describe

single instances of e.g. nations, countries, provinces, cities and towns (groups or collectives), government departments, non-governmental organisations, and staff unions (organisations or institutions), disciplinary hearings, public participation, corruption and intergovernmental relations (social actions or events), books, newspapers, and articles in scholarly journals (social artefacts or cultural objects), legislation, policies, procedures, implementation programmes, and training programmes (interventions), and theories, models and concepts (constructs) (Wessels, Pauw and Thani 2009:10–12 and Wessels and Thani 2014:170).

Considering that the reason for the researchers' decision to embark on this research journey, was the degree of ambiguity regarding the meaning of the concept 'case study' in Public Administration, the next step in the process of concept analysis as suggested by Walker and Avant (2013:165), is crucial for conceptual clarity.

Borderline, contrary, invented, and illegitimate concepts

Conceptual confusion is most probably the result of the use of the term 'case study' with borderline, related, contrary, invented, or illegitimate meanings. The different meanings attached to the use of similar terms are examples or instances of concepts that contain either none of the defining attributes of the concept being examined, or some, but not all of them (Walker and Avant 2013:171 and Wilson 1963:29-32). Regarding the concept 'case study', a case study referring to either a research design (Brower *et al.* 2000:371), a technique (McCurdy and Cleary 1984:49), an approach (Adams and White 1994:567), a methodology (Perry and Kraemer 1986:224) or a method (Garson 2002:209), may be related but not meet all the defining attributes of the model case discussed above. A meticulous analysis of these related concepts is thus an imperative of conceptual clarity.

Identify antecedents and consequences

The preceding steps of concept analysis have shown that the concept 'case study' has not only specific defining attributes, but is distinct from other seemingly related concepts. The seventh step of concept analysis proposed by Walker and Avant (2013:174) requires the researcher to identify the antecedents and consequences of the concept. Antecedents refer to "those events or incidents that must occur or be in place prior to the occurrence of the concept" while consequences refer to "those events or incidents that occur as a result of the occurrence of the concept" (Walker and Avant 2013:174).

What are the possible antecedents of the concept 'case study'? The most logical antecedent is probably the formulation of the research purpose (Yin 2009:8-10) as this formulation will most probably determine all the other research decisions. The purpose of case studies is not defining attributes of the concept 'case study' as they have shown to be categorised in a similar way as the purposes of other research endeavours, namely exploratory, explanatory and descriptive (Yin 2009:7-8). However, the selected research purpose does have implications for the defining attributes (e.g. research design) of a case study. An example is case studies with an exploratory purpose, focusing mainly on 'what' questions (Yin 2009:9) aimed at exploring areas or issues wherein "little theory is available or measurement is unclear" (Kohn 1997:3). The selection of such a research purpose will most probably result in a decision to use a revelatory case selection strategy that would be more relevant in such studies. Although the research purpose is not a defining attribute of the concept 'case study', Leedy and Ormrod (2010:182) as well as Yin (2009:50) provide evidence of the influence of a specific research purpose on the defining attributes of a case study. The concept 'case study' as well as the practice of case study research will evidently not exist in the absence of the antecedent 'research purpose'.

Another example of an event or incident to be present for a 'case study' to exist is the phenomenon or the unit of analysis of which the case is a single instance (Gerring 2004:342; Rule *et al.* 2011:302 and Stake 1995:xi). Although a unit of analysis is not regarded as a defining attribute of 'case study', it is an attribute of research in general. However, an appropriately designed study of a purposefully selected single instance of a phenomenon cannot exist without the presence of the phenomenon of which the case is a single instance. A unit of analysis is thus an antecedent to the defining attribute 'single instance' of the concept 'case study'.

What are the consequences or outcomes of the concept 'case study'? The implications of an appropriately designed study of a purposefully selected single instance of a phenomenon is the use of scientific methods and techniques for data collection and analysis (Rowley 2002:18; Yin 2003:13) leading to scholarly findings and outcomes (Flybjerg 2006:14 and Gerring 2007:115 and Yin 2009:47). None of these methods of data collection and analysis as well as expected outcomes summarised in Table 2 can be regarded as unique consequences of case study research therefore defining attributes of the concept 'case study'. These methods and outcomes are supposed to be attributes of all scholarly research. However, a 'case study' not utilising generally accepted scientific methods and not leading to specific scientific outcomes such as comparison, theory generalisations, theory testing, theory building, hypothesis testing and replication, will by implication not be appropriately designed for the selected single instance of study, and not a 'case study'.

Table 2: Consequences of the concept ‘case study’ in Public Administration research: methods and expected outcomes

Nature of data collection methods	Nature of data analysis methods	Expected outcome
Conceptual Qualitative Quantitative	Pattern matching Logic models Explanation building Time series Pattern match Cross-case synthesis	Comparison Theory testing Hypothesis testing Theory generalisations Theory building Theory (explanation) building Analytical generalisation Replication Comparison

Define empirical referents for the concept ‘case study’

The previous steps in this process of concept analysis not only assisted us to identify the defining attributes of the concept ‘case study’ but it also contextualises the concept within a network of related but also non-related concepts. This last step in the process of analysis, aimed at proposing “empirical referents for the defining attributes” of the concept ‘case study’ (Walker and Avant 2013:174) describes empirical referents as “classes or categories of actual phenomena that by their existence or presence demonstrate the occurrence of the concept itself”. Empirical referents are deemed necessary when the concept to be analysed and its defining attributes are highly abstract (Walker and Avant 2013:174). Considering that the defining attributes of ‘case study’ are relatively abstract concepts such as ‘distinct case of a unit of analysis’, ‘case selection strategy’ and ‘specific research design’, empirical referents may assist in recognising and measuring those defining attributes of the concept.

CONCLUSION: A CONCEPTUAL FRAMEWORK FOR UNDERSTANDING THE CONCEPT ‘CASE STUDY’ IN PUBLIC ADMINISTRATION

By applying the eight steps suggested by Walker and Avant (2013) to analyse the concept ‘case study’, one can deduce that the defining attributes of the concept ‘case study’ are two dimensional, namely distinctive activities (selection strategies and research design) focusing on a distinctive object (an instance of a larger class or phenomenon). The concept ‘case study’ thus refers to the appropriately designed study of a purposefully selected single instance of a phenomenon.

Table 3: Conceptual framework: Components of a case study design in Public Administration

Case	Instance of a unit of analysis					
Selection strategy	Typical	Extreme	Critical	Revelatory	Longitudinal	Replication logic
Design	Single/Multiple	Single	Single	Single	Single	Multiple
Purpose	Explain Describe Explore	Describe Explore	Explain Describe	Explore	Explain	Explain Describe Explore
Nature of data collection	Conceptual Qualitative Quantitative					
Nature of data analysis	Pattern Matching Logic models Explanation building Time series Pattern matching Logic models Explanation building Time series Cross-case synthesis					
Expected outcome	Comparison	Theory/ hypothesis testing	Theory Generalisations Theory/ Hypothesis testing	Theory building	Theory (explaining) building	Analytical Generalisation Replication Comparison

The analysis of the concept 'case study' as used within the context of Public Administration, has revealed that the concept can be best understood through the application of six categories of distinct but interrelated concepts combined as components of a case study in a conceptual framework (Table 3). The first category of concepts is the 'case' as an instance of a unit of analysis in Public Administration. This category of concepts refers to the object of 'case study', namely the instance (case) of a unit of analysis. The unit of analysis that is thus not unique but the case as instance of that unit of analysis. The second category of concepts in this framework is the case selection strategies. These strategies have also been identified as defining attributes of the concept 'case study' as they are uniquely related to the selection of these instances of a larger phenomenon. The third category of concepts is the case study design (single or multiple) which is also a defining attribute of the concept 'case study'. The other categories of concepts (case study purpose, nature of data collection methods, nature of data analysis methods and expected outcome), are all key components of the conceptual framework, but not part of the defining attributes of the concept 'case study'.

This article thus reported on the crafting of a conceptual framework for the concept 'case study' through the application of the eight steps of a concept analysis suggested by Walker and Avant (2013). The analysis has revealed that the defining attribute of this concept, is the application of distinct case selection strategies for selecting a single instance of a larger phenomenon (a case) for a uniquely designed (case study) research project. The conceptual framework serves as a thinking tool for an integrated and deepened understanding of the concept and for assessing and enhancing the practice of case study research in Public Administration.

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