

The Case study Method:

From a Coherency Architect's Point of View

Why this method is Important

The Coherency Architect should consider the case study method an important tool since the Architect has to investigate the organization or organizations they work with to investigate and uncover problems that needs to be solved before the organization can continue with it plans to achieve its goals.

The Case Study Method gives the Coherency Architect tools which can assist him or her with identifying the problems and articulate the right solutions for the right problems.

Therefore will the Case Study Method be presented and dealt with in this particular blog post. Please note that you can download a compendium dealing with the case study method ([insert link here](#)).

The First Step

According to Robert K. Yin there are logical steps the investigator (in our case the Coherency Architect) should deal with in a particular order

The Coherency Architect should articulate a problem statement. The problem statement should primarily deal with how, what, who and why questions which need explanations. The Coherency Architect should know how to articulate an academic problem statement since it is presumed that the Coherency Architect has attended a business school an University related education.

Then the second step follows.

The Second Step

This step deals with how the Coherency Architect designs the case study. The case study can be designed various form of collecting data and different forms of analyzing them. When it comes to the Coherency Architect will work with both qualitative data and quantitative data when he or she is about to study an organization.

There several forms of case studies which the Coherency Architect can choose to work with. The first one is called explanatory case study, the explorative case study and the causal case study.

The explanatory case study used to explain a phenomena or tendency. The causal case study is used to identify what kind of decisions or processes that led to the outcome of the situation e.g., why the organization developed as it did and who were in charge of it. The third is known as the explorative case study which is used to (as the name indicates) to explorer if a hypothesis is sound.

It is important that the Coherency Architect understand the theory which he or she is about to apply to the case study otherwise the design will fail. Therefore should the Coherency Architect work with this particular issue before he or she starts the procedure at this step.

Yin are of the opinion that there are two types of case studies. The first one is known as the single case study and is the most commonly known; however the second kind of case study called the multiple case study is more rare but it is easier to generalize the findings of them.

Thereto are there two forms of case studies. The first kind of case study is known in education where the investigator (in our case the Architect) doesn't need to stay objective to the evidence (data) which he or she has collected. The other case is the scientific case study where the

investigator has to stay object and critical towards the evidence (data) he or she has collected. The Coherency Architect will most likely work with the scientific case.

When it comes to scientific case study then it is important to emphasize that the Coherency Architect has to put extra attention to:

1. Construct Validity deals with identifying the right operational measures for the concepts that are being studied. In the case of science then case studies have been associated difficulty when it deals with operationalize the measure and the measure often are biased since the findings are based on personal judgement.
2. Internal Validity deals with establishing casual relationships where certain conditions are believed to lead to other relationships than spurious¹ relationships. Please note that this particular approach is only for explanatory and casual studies and can't be applied for other kinds of case studies.
3. External Validity deals with identifying how the domain (the findings of the case study) can be generalized. This means how can the findings be applied in other organizations than the case study.
4. Reliability deals with how the findings can be replicated in other studies. The major concern is that the findings are airtight and aren't flawed and the findings therefore are biased or non-scientific.

This leads us to the third step.

The Third Step

This step deals with the preparation of the data collection and what the Coherency Architect should do before he or she begins the data collection.

First of all should the Coherency Architect focus on developing the right contacts to those persons he or she needs to interview to get the right information on e.g., how the work systems functions. However the Coherency Architect might also make use of quantitative data such as statics or other data which can be collected this way.

The Coherency Architect should be aware of that the establishing the right contacts is more important than the theory establishing part when it comes to the data collection since if the Coherency Architect can't collect the right data that support his or her's hypothesis then the outcome of the case study might end up being biased and therefore not useable for any one.

The Coherency Architect should focus on establishing a case study protocol which consist of the data collection protocol which includes the questions the Coherency Architect will be asking the interviewee. The Coherency Architect should also include an outline of the report which should be the case study. The case study protocol is build upon the idea that the Coherency Architect can make use of it to stay on track.

It is notable that the Coherency Architect should create an evidence database. The database should contain the data the Coherency Architect has uncovered so a chain of evidence can be established.

The Fourth Step

This step deals with the data collection phase. It is notable that the Coherency Architect will have to work with all six data forms which Yin mention in his book (see sources).

Interviews, documentation, records from archives and physical artifacts.

It is important that the Coherency Architect has to choose the sources with a critical point of view

¹ Defined as not to have a purpose.

since the collected data might lead to a biased analysis and therefore to a biased view. The Coherency Architect should therefore try to combine multiple sources to achieve something that can assist the Coherency Architect to establish an overview of the case organization and how to identify the various layers without being in the situation that he or she will be focusing on problems that proves to have minimal impact on the various layers of the organization.

The Fifth Step

This step deals with analyzing the data (evidence) the Coherency Architect has collected. Yin is of the states that there are four general strategies:

The Theoretical Propositions Strategy

This is the most common used strategy. The strategy deals with using the techniques, tools and world view the theory the architect has made use of in design his or her questions of which were made use of while the architect collected his data

Developing a Case Description

If the architect experience problems with applying the first mentioned strategy then the development of a case description might be preferable. This strategy is an alternative to the theoretical propositions strategy and when applied it is often considered as evidence for that the initial case questions weren't based on theory.

Applying Quantitative and Qualitative Data

This strategy can prove to become an advantage for the architect if he or she is experienced with the case study technique. Yin is of the opinion that the quantitative data if the quantitative data has to cover behavior or events that the case study is trying to explain and second the data has to cover an embedded unit that can be related to the analysis.

Examining Rival Explanations

The fourth and last strategy deals with examining other explanations or theories of how the evidence in the case is related and interlinked. When the rival explanations are examined then it can uncover flaws in the evidence or uncover new relations.

Then there are five different analytical tools that can be applied the case study evidence:

Pattern Matching

The pattern matching approach deals with identifying patterns in the evidence (data) the architect has collect through his study of a phenomenon, organization or other. Yin are pf the opinion that simple patterns can also be uncovered and applied.

Explanation Building

This form of analysis deals with creating causal links among the various forms of evidence and by that explaining what happened and why.

Time - Series Analysis

According to Yin there are there two different approaches to time series analysis. The simple time series analysis and the complex time series analysis.

The simple time share analysis is based how the case organization has developed over time. Normally the simple share analysis is like applying the pattern matching.

Logic Models

Establishing a logical model explaining how the evidence is linked (the chain of evidence). The logical model has to explain the evidence and create casual links.

Cross Case Synthesis

This form of data analysis is suitable for studies that contain more than one case organization.

Sources

Yin, R.K., 2008. *Case Study Research: Design and Methods* Fourth., SAGE Publications Inc.