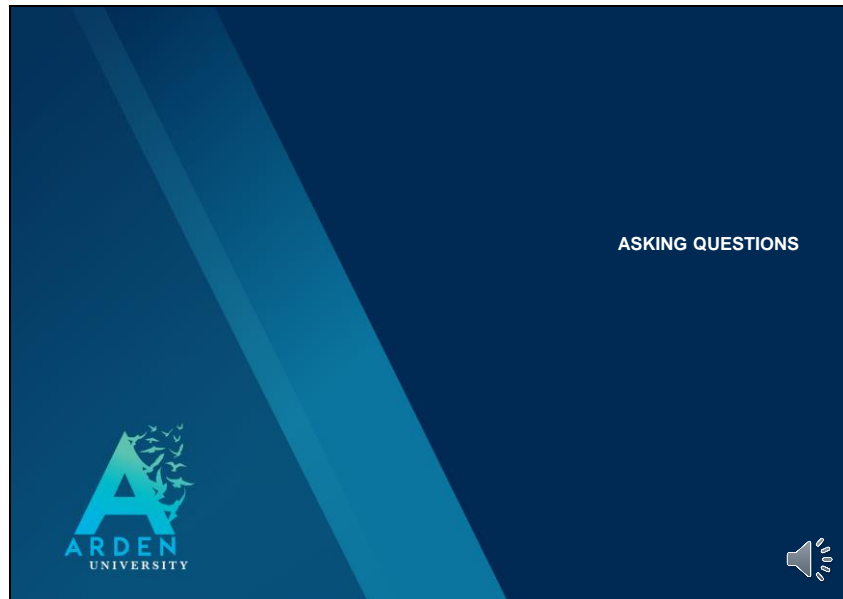


Slide 1




The business question (also referred to as the business problem) is the central question from which we will derive all the requirements for our project.

Thus we need to take into account some considerations.

What to consider when asking questions

- Can my question be answered empirically?


The logo for Arden University, featuring a stylized 'A' with a tree inside it, and the text 'ARDEN UNIVERSITY' below it.

First, we have to make sure that our question can be answered through the collection and analysis of data. For example, if the question can be answered by reading a few text books, there is really no use in running a data analytics project.

What to consider when asking questions

- Can my question be answered empirically?

“How do I make my customers come back?”

The logo for Arden University, featuring a stylized 'A' with a tree inside it, and the words 'ARDEN UNIVERSITY' below it.

Examples for a question that cannot be directly answered by the collection and analysis of data are ‘how-to’ questions, such as ‘how do I make my customers come back?’ A data analytics project cannot usually make such a prescription.


What to consider when asking questions

- Can my question be answered empirically?

~~“How do I make my customers come back?”~~

“What are the customer or service characteristics that have a good chance of predicting the returning of customers?”

“What is common to my historically returning customers?”




Instead, a relevant question that could be answered by data analysis might be:

“what are the characteristics that have a good chance of predicting the returning of customers?” or “what is common to my historically returning customers?”

What to consider when asking questions

- Can my question be answered empirically?
- Is my question relevant and strategic to my organization?


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Second, we must make sure that our question is at the strategic core of our organization. A proper data analytics project requires effort, time and computing resources.

Thus, we must make sure someone cares about this question, and that it has a real impact on the organization.

What to consider when asking questions

- Can my question be answered empirically?
- Is my question relevant and strategic to my organization?
- How actionable can the results be?



Third, we must be able to imagine how the results would look, and make sure they are actionable.

For example, if our question is “which demographic variable is the best predictor for a successful employee?”, this might not be actionable, since we cannot make people change their demographics, and we will not be able to do anything about such results.

A successful data analytics project is such that results in new knowledge that can better support the decision-making of the organization.

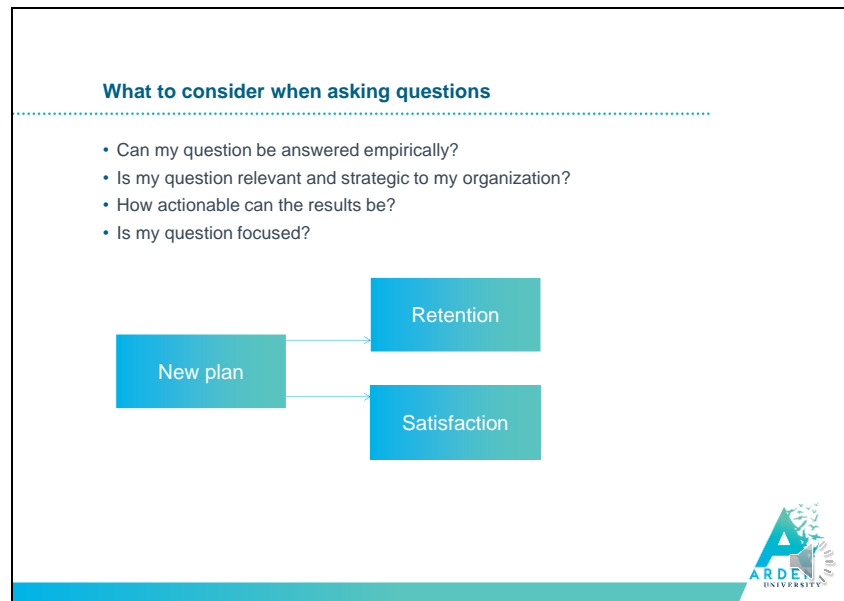
Having said that, a supporting new knowledge could also be that the currently available data cannot inform the decision or to answer the question. In this case, it is still actionable since the organization will need to figure out how to find or create the required data.

What to consider when asking questions

- Can my question be answered empirically?
- Is my question relevant and strategic to my organization?
- How actionable can the results be?
- Is my question focused?



Is my question focused?




If, for example, we wish to ask “does our new customer recruitment plan affect both retention and satisfaction of customers?”

What to consider when asking questions

- Can my question be answered empirically?
- Is my question relevant and strategic to my organization?
- How actionable can the results be?
- Is my question focused?

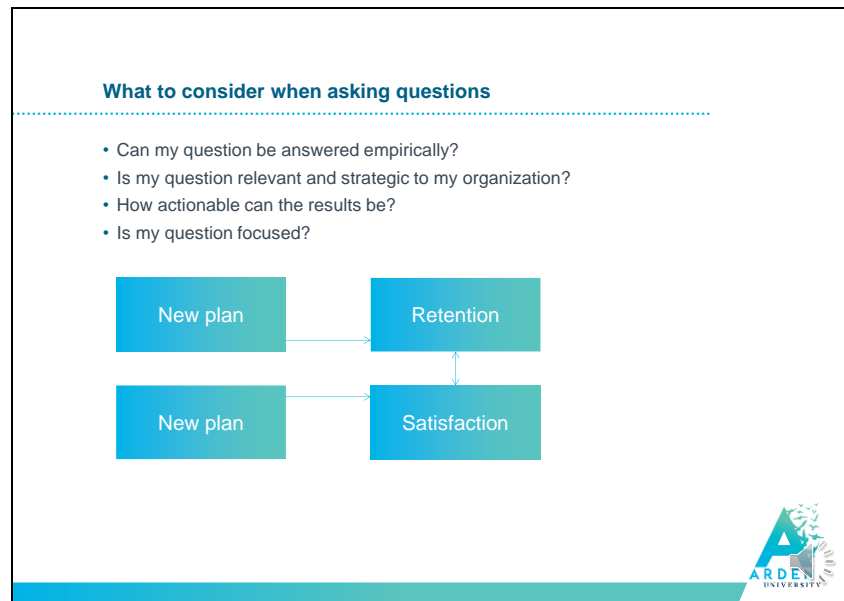
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graph LR; NP1[New plan] --> R[Retention]; NP2[New plan] --> S[Satisfaction];
```

The diagram consists of two horizontal rows of teal-colored rectangular boxes. In the top row, a box labeled 'New plan' is connected by a light blue arrow to a box labeled 'Retention'. In the bottom row, a box labeled 'New plan' is connected by a light blue arrow to a box labeled 'Satisfaction'.



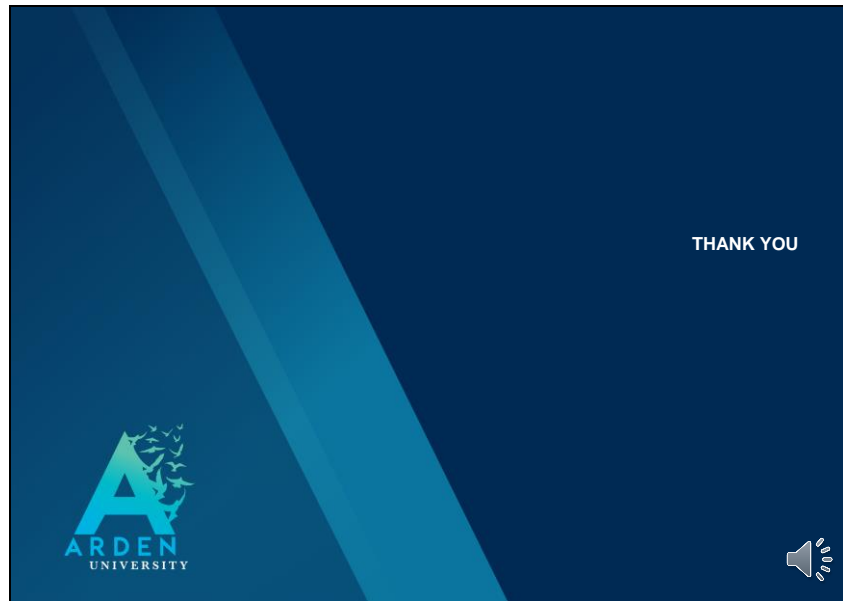
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we are actually looking for two separated questions.



Unless of course we assume that there is some relation between retention and satisfaction; in this case, we just add a new question.
A data analytics project should have a very focused business question, which in turn will result in a very clear scope of the project, and will avoid over-complexity.

Slide 11



Thank you.