Solution Series 2

1. Written stakeholder agreement: An example of a short stakeholder agreement for the hotel case:
    a. the projects objectives (and what is it not): detailed names and figures have to be stated in the agreement:
        - analysis of the decrease of guest nights per region [statement of all regions which will be analysed]
        - identifying possible causes of the decrease of bed nights [statements of all causes which are analysed e.g. quality, strong Swiss Franc, hotel not sufficiently known, and so on]
        - comparison of the marketing investments and effects per region / guest class to the number of visitors [statement of regions and guest classes which will be analysed]
        - identification of gaps between costs and benefits per region / guest class [detailed statements which ones]
        - sensitivity analysis of the impacts of the change in one variable [statement which variables e.g. change marketing budget, quality, change in room rates and by what amount and the rationale behind] to the target variables bed nights and revenues (margin)
        - determination of time of impact between a certain action [how long it takes from e.g. increasing in marketing spendings / reallocation of marketing spendings / improvement in quality and so on] to the change in bed nights / revenues [per region / guest class and so on]
        - determine actionable results (if any) for improving the bed nights and/or the revenues and/or the margin and/or the utilisation of rooms, infrastructure, and staff
        - whereas it is measuring the impacts of the actions on the number of bed nights, the project is not about actively implementing the actions
        - the results give options with high likelihood of an impact for increasing the bed nights and/or revenues. The results do not give actions which give for sure an impact for an increase in the bed nights and/or revenues
        - if only parts of the project is performed and/or the strategic decision by the primary stakeholder takes only parts of the result into consideration the success can not be achieved with high probability.

    b. the definition of the problem,
        - there is an deterioration of the bed night and the revenues / margin of the hotel [percentages are given in the text]
        - the spending budget of the marketing per region is not consistent with the percentage of guests from that reason
        - There is currently an overcapacity in rooms, infrastructure and staff
        - there may be also some quality issues but this has to be analysed
        - the problem has to be solved quickly i.e in the next few weeks actionable results have to be produced
        - and so on….

    c. the resources (hotel's resources, your resources)

    Own resources:

    - 40% of the overall budget (CHF 400'000 (Series 1)) = CHF 160'000
    - Time frame: 5 weeks until final result: CHF 32'000 per week => 2-3 resources full time from the analytics department needed

Hotel resources:

- 50% of the marketing responsible
- 100% resource for gathering data and information
- 40% of an IT person (2 days a week)
- Staff availability for conducting interviews
- Availability of CEO, CFO and marketing responsible
- Maybe some additional IT resources when gathering data
- Thus, overall also 2-3 resources full time from the customer side

d. the time frame,
- First results in 3 weeks, final results in 5 weeks
- Actions implementation in weeks 3-8
- Expected visible outcomes of the actions: 4 months after implementation of first actions in 3 weeks (thus, only then one can measure the success of the actionable results and not before!)

e. the performance measures

For the performance measure we have to distinguish between performance measures for the project and the project development and measures for the success of the actionable results:
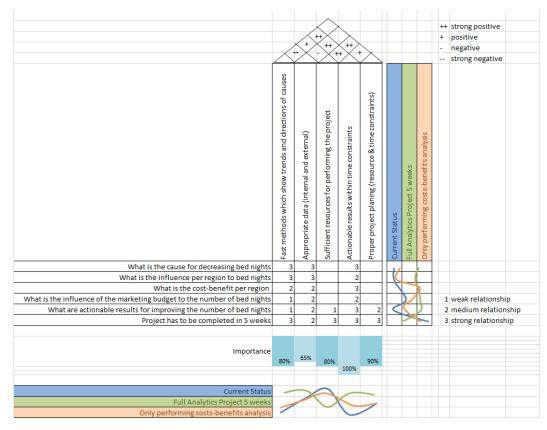
- Project measures: adherence to the project plan and project deliverables. Can be measured during the project i.e. the next 5 weeks.
- Actionable results: measurement only reasonable after 4 months; measure: number of guest nights compared against plan, or average over the last 365 days under consideration of seasonality, comparison against last year's number during these time period.

f. the budget to get there
- CHF 400'000 in total:
  - CHF 160'000 for the analytics department
  - CHF 240'000 for hotel internal resources (people) and costs (e.g. IT systems)
- Is this budget sufficient? Some plausibility checks:
  - As seen under c. for the data analytics team, the budget is for 2-3 resources over 5 weeks; this seems sufficient for this type of project
  - Hotel: CHF 240'000: the data analytics project has to be covered as most probably further tasks in relation with the implementation of the actions. Thus, assuming about the same budget for the 2 intense weeks, the remaining seems fine for further implementation work.
  - But: it would of course not include any bigger spendings e.g. an increase in the marketing budget.

  g. further consideration and constraints
- many resources within a short period of time are required thus, requiring a good project planning
- that the resources are informed about their tasks and that they have to be available within the given time frame
- results must be available within 3 to 5 weeks; thus, it is more important to see trends or the direction of causes than having analysed all the details; do not lose yourself in detailed and fancy methods
- consider using also external data e.g. web page data like TripAdvisor.com, Booking.com, etc.
- that not only a cost – benefit analysis will be performed but a more holistic view
- and so on

2. Based on the information given in series 1 and above please conduct a quality function deployment (only phase 1).
   The single steps for setting up a QFD plot are given in the series:
   a. Define the "Customer needs"
   b. Define the "Analytics project requirement" in this specific case
   c. Link them with the relationship (0: no relationship, 1: weak, 2: medium, 3: strong)
   d. Benchmark the "What" against full project, no project and only performing the cost – revenue part
   e. Define the "Interactions of the design requirements" (-- strong negative, - negative, 0 neutral, + positive, ++ strong positive relationship)
   f. Determine the importance of the "How"
   g. And finally, benchmark the "How" against the three project options

   One proposal of the final version is seen in this graph:

	Fast methods which show trends and directions of causes	Appropriate data (internal and external)	Sufficient resources for performing the project	Actionable results within time constraints	Proper project planing (resource & time constraints)	Current Status	Full Analytics Project 5 weeks	Only performing costs-benefits analysis	
What is the cause for decreasing bed nights	3	3		3					
What is the influence per region to bed nights	3	3		2					
What is the cost-benefit per region	2	2		3					
What is the influence of the marketing budget to the number of bed nights	1	2		2					1 weak relationship
What are actionable results for improving the number of bed nights	1	2	1	3	2				2 medium relationship
Project has to be completed in 5 weeks	3	2	3	3	3				3 strong relationship

Importance	80%	65%	80%	100%	90%

Current Status
Full Analytics Project 5 weeks
Only performing costs-benefits analysis

Legend:
++ strong positive
+ positive
- negative
-- strong negative

First, it depends on the determination of the "what" and "how" and then, how each individual rate a relationship. Thus, variations of this graph can exist. But such a graph has to be self-contained consistent.

3. Kano's model: Perform the same analysis with Kano's model
   a. Step 1: Identification of product requirements

I What are the associations of the customer when using the product /service?

CEO: For him it is "the last hope" and he is clutching at these analytics straws. For the CEO it is like all or nothing. Thus, he has very high expectation that immediately actionable results are coming out of the project.

CFO: He has doubt about the project and the possible results. He thinks that he knows already all answers (costs and quality).

Marketing responsible: Likes that project. On one side she seems not directly affected if the results should not be so well on the other side she is also convinced that she is doing a great job and the right things in marketing.

II Which problems are associated by the customer with the use of the product?

CEO: Time frame, analytics project takes too long to come up with actions; it seems that this is like "his last hope" and the outcome has to be successful actionable results. Thus, if the analysis project would not deliver any actionable insights he will have a huge problem and will most probably not anymore a sponsor for that project.

CFO: Predefined opinion, most probably not open to new insights out of the analysis; looks only to costs instead of the value of the analysis and thus, gives you no resources. He is not a supporter of this project.

Marketing responsible: Over-enthusiastic; has also a predefined opinion that her strategy is right and that the analysis will confirm that and that she will receive more marketing budget. If the analysis does not confirm her view she maybe will not support the analysis anymore. But only "maybe" as she could win other insights.

III Which criteria is taken into account by the customer when buying the product?

CEO: He just wants to have direct value out of the project by actionable results which can be implemented immediately and also showing immediately positive results. He does not care about costs or resources. He just want have results which helps him to stay in his position. He is a so-called economic buyer i.e. he buys value.

CFO: Costs; low direct costs and low indirect costs. But if he has to perform the project with you then, he wants to have his results confirmed.

Marketing responsible: Improve the marketing and marketing spending. She is interested in several analysis related with the marketing and marketing budget and how to improve that. She is more a technical buyer.

IV Which new features or services would better meet the expectations of the customer? Or: What would the customer change in the product?

CEO: As he is concerned about the time aspect, he would prefer "quick analyses" with "actionable outcomes". He would prefer solutions which can be performed more quickly. Thus, it is important to think about so-called "quick wins" in such a project.

CFO: Just a cost analysis, which would be (nearly) for free. It seems that he is not interested in an analytics project at all. It seems also difficult to convince him from such a project.

Marketing responsible: Would prefer an analysis which answers several specific and concrete questions like marketing budget allocation, overall budget needed, return per Swiss Franc, if the Dubai conference has an impact on the tourists / guests and so on.

b.   Step 2: Set up a Kano questionnaire: set up at least 4 pairs of questions (functional & dysfunctional). Examples are:

Pair 1: Actionable results:

If we have within two weeks only actionable results which additionally, require an increase in the marketing budget in the short run, how do you feel?

If we have within two weeks no actionable results which require an increase in the marketing budget in the short run, how do you feel?

Pair 2: Marketing budget aspect:

If the marketing budget has to be reallocated to the different marketing classes, how do you fell?

If the marketing budget has not to be reallocated to the different marketing classes, how do you feel?

Pair 3: Willingness to action on the results

If you have actionable results from the analysis which requires a change of your hotel strategy, how do you feel?

If you have no actionable results from the analysis which requires a change of your hotel strategy, how do you feel?

Pair 4: Full project versus parts of analysis

If the full data analytics project is performed (with all costs and resources and time), how do you feel?

If not the full data analytics project is performed (with all costs and resources and time), how do you feel?

c.   Step 3: With what medium you would collect data and why?

Interview, but most probably some standard questions are integrated for all 3 people. The customer panel is predefined i.e. the three direct and decision-making customer, CEO, CFO and marketing responsible.

d.   Step 4: Assume you have get the following result for the 4 questions.

Product Requirement	A	N	M	I	R	Q	Total
Requirement 1	60.40%	15.60%	4.30%	12.30%	6.50%	0.90%	100.00%
Requirement 2	3.60%	4.30%	67.20%	20.50%	3.60%	0.80%	100.00%
Requirement 3	28.70%	24.80%	27.10%	17.70%	1.20%	0.50%	100.00%
Requirement 4	8.70%	38.40%	28.90%	20.60%	3.10%	0.30%	100.00%
....	...	...	...	...	...	...

Category, satisfaction factor, and the dissatisfaction factor for each question.

Product Requirement	A	N	M	I	R	Q	Total	Category	Satisfaction	Dissatisfaction
Requirement 1	60.40%	15.60%	4.30%	12.30%	6.50%	0.90%	100.00%	A	0.821	-0.215
Requirement 2	3.60%	4.30%	67.20%	20.50%	3.60%	0.80%	100.00%	M	0.083	-0.748
Requirement 3	28.70%	24.80%	27.10%	17.70%	1.20%	0.50%	100.00%	M	0.544	-0.528
Requirement 4	8.70%	38.40%	28.90%	20.60%	3.10%	0.30%	100.00%	N or evtl M	0.488	-0.697
....	...	...	...	...	...	...				

Formulas for calculation:

Category: M > N > A > I

Satisfaction: (A+N) / (A+N+M+I)

Dissatisfaction: -1 * (N+M) / (A+N+M+I)

Requirement 3: There is no obvious dominant category. According to the decision rule the category is M. If one compare this with the satisfaction and dissatisfaction factor one can see that fulfilling or not fulfilling this requirement has both a big impact of more or less the same amount. Thus, it is maybe more a must-be requirement than an attractive. Because if an attractive requirement is not fulfilled the customer would not recognise that.

The same analysis holds for requirement 4: Not fulfilling this requirement would have an impact of -0.697 to the satisfaction of the customer thus, it seems to be expected, thus, a must-be.

Plot of the results as frequencies in a Dissatisfaction – Satisfaction.