Augmenting Voice of the Customer Analysis by Analysis of Beliefs

Dr. Wolfram Pietsch
Professor for Business Management,
International Sales and Service management
dept. of business studies
Aachen University of Applied Sciences
pietsch@fh-aachen.de

1. Shortcomings of verbal analysis of customer needs

Understanding the Voice of the Customer (VOC) is crucial for the development of customer-focused products and services. Hence the analysis of the voice of the customer (VOCA) is a vital step in the QFD Process. Traditional QFD techniques rely on the questioning of customers or stakeholders. They must be willing and able to reflect their work or business thoroughly. This reflection may supported by facilitation, but there are limits in several situations, i.e. if the product or situation is quite new or if knowledge is implicit or if there are personal or cultural barriers regarding reflection. The SEKI-Model explains the QFD-Process as transformation of knowledge i.e. VOCA implies two steps: socialisation and internalisation [1].

	Individual	Organisation
Implicit Knowledge	**S**ocialisation →	**E**xternalisation ↓
Explicit Knowledge	↑ **I**nternalisation	← **C**ombination

Fig. 1The SECI-Model: Transformation of Knowledge (see [1]

Externalisation of knowledge has been recognised as a primary task of the knowledge management process within QFD, but there is little research on techniques beyond questioning or facilitation. If a subject is new, emotional sensitive or even cultural relevant, elicitation of knowledge is difficult just by verbal expressions. In order to enquire into the beliefs of the customers or stakeholders the VOCA must be enhanced.

2. Analysis of beliefs (AoB)

Several complementary techniques have been proposed for the elicitation of emotional design aspects ranging from Kansai Engineering [2] over applied ethnography and Industrial Design [3]. But none of these approaches does fit into the QFD Deployment with its tables, matrices and graphs smoothly. The Analysis of beliefs enquires into implicit and individual knowledge, which may be buried deeply within the soul and beyond actual awareness. Or there are some barriers for open communication such as cultural codes misperceptions. If this knowledge remains untapped, the results of the QFD-process are incomplete or even biased.

In order to uncover such kind of implicit knowledge, the analysis may not be limited to a specific product or service at first. However, there must be a certain reason for action, an initial problem or a

challenge. This problem or challenge should be stated as a starting point in a statement explicitly, such as "Younger customers do prefer other products". The statement should address a specific aspect of acquisition or application but should not comprise a solution and leave room for interpretation of reasons. This statement is the starting point of the Analysis of beliefs (AoB). The following figure depicts the steps of an AoB preceding the VOCA.

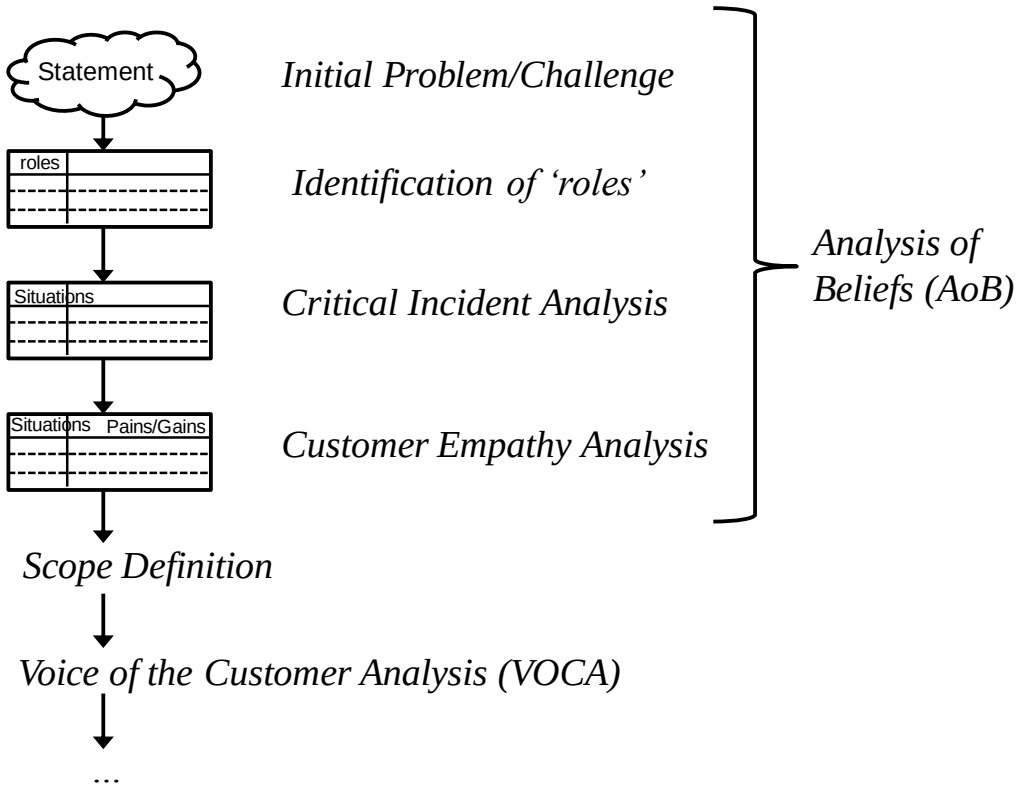

Fig. 2 Overview of augmented Voice of Customer Analysis

The knowledge cycle below starts with 'Socialisation' of individual implicit knowledge. Hence it is necessary, to differentiate individual perspectives. However, it is too early to talk about stakeholders which provide power and influence which is necessary for prioritisation. Roles plays have proven to be helpful in order to understand motives. Therefore, 'roles' with different attitudes and motives may be identified which are specific or relevant for the context to be analysed for a role play game in an AoB-Workshop similar to a VOCA-workshop. The roles should cover the generic perspectives of different types of customers, providers, and their suppliers. The following questions may be asked in order to find out relevant roles:

Who is acting, thinking or feeling different of making or using <aProduct/aService>?

How could this perspective be characterised in principle?

In order to dig into implicit knowledge related with the initial statement, the individual emotional disposition of stakeholders is to be understood – the goal is to establish mutual empathy. It is difficult to enquire into emotions directly (How do you feel about ...?). It is known that the stronger emotions are involved in a specific situation related with a certain subject the more likely the incident itself will be remembered. Hence it makes sense to ask for critical incidents and to elicitate the underlying emotions which is called Critical Incident Technique (CIT) [4]. CIT emerged from psychological research and has been employed successful in many fields besides healthcare, i.e. organisational

development and market research. It may be adapted for AoB so that participants of an AoB workshop are put in two groups of 2 or 3 members with complementary roles such as customer/provider/supplier identifying and discussing 'critical incidents' from their currently assigned role. It may be helpful for all participants to search for and study life reports, audio or videos from the field before the workshop. The goal is not to recall situations objectively but to empathise with the other role. It is helpful to block professional insight and to behave naive like an absolute beginner. Therefore it is not necessary, that participants have been experiencing such an incident, but that they will get an idea how it feels like. It is advisable if the first role to be assigned is different to the function in business. A provider may play the role of the supplier first. Moreover the incident must not really have taken place; it may even be helpful to alienate them by purpose in order to unveil hidden dispositions.

The first questions target at actual experiences (aProduct/aService is a placeholder for the item under consideration):

> *Think of a time and situation concerning <aProduct/aService> (or similar) which you (or any other <aRole>) would like to experience again?*
>
> *Think of a time and situation concerning <aProduct/aService> (or similar) which you (or any other <aRole>) would like to avoid?*

The next set of questions searches for associative thoughts:

> *Think of a striking desirable or avoidable time and situation with a different product or services: How would you describe a similar time and situation concerning <aProduct/aService>?*
>
> *Think of your favoured ages, era, country, or even planet: How would you describe a similar time and situation concerning <aProduct/aService>?*
>
> *Think of any disliked ages, country, or even planet: How would you describe a similar time and situation concerning <aProduct/aService>?*

The result of the augmented CIT is the Situation Table, which will be elaborated in the next step: the participants will dig deeper into each situation, finding out about the physical and mental perception in detail: Statements, actions, gestures, noises, smells, thoughts and so on. Each situation as a whole and each finding in detail shall be understood in terms of gains and pains for the roles involved.

> *What did one see, smell, hear, sense, say, do, think and feel before, within or after <aSituation>*

The responses are added to the Situation Table from above. Then the sensual perception is analysed regarding its affective responses: making the underlying emotions and beliefs explicit.

> *Which gains and/or pains may arise within <aSituation>?*

The result is a Table with situations, sensual perception and affective responses –which is to be called AoB table. The following figure 3 depicts a sample AoB-table.

	Situation	See and Smell	Hear and Sense	Say and Do	Think and Feel	Pains	Gains
Customer → Provider	visit of sales rep.	elegant car	smells new	make compliment	high prices?	distrust	respect
Provider → Customer	visit of sales rep.	sleazy outlook, bad odor	street language	where do You come from?	laid-back☺ not trust-worthy☹	payment shortfall 💣	easy-going
Supplier→ Provider	…	…	…	…	…	…	…
Provider → Supplier	…	…	…	…	…	…	…

Fig 3. Sample AoB-Table

It is not unusual that there are ambivalent perceptions or responses to a certain situation -- in figure 3 the thoughts "laid-back ☺" versus "not trustworthy☹". Such conflicts are promising starting points for new solutions and should be analysed more deeply, searching for reasons and causes, leading to additional entries in the AoB-table.

The AoB has two primary results:

1. Participants are opened up and prepared for a more fruitful verbal inquiry of needs
2. The AoB-table may be used as a formal input for the next step in the deployment

Since the AoB opens up the arena wide beyond the context of the initial situation, it is not viable to start the VOCA immediately. If the beliefs concerning a product/service are understood more deeply, it is common and desired, that new ideas come up, challenging the product/service as it is. In order to perform a VOCA effectively, the scope of a detailed analysis must be (re-)defined. Depending on the business planning process and corporate culture, this could be a management decision supported by policy deployment [5] eventually, or part of scoping activities within the development cycle. If the scope has been specified, the results of the AoB can be fed into a subsequent VOCA. Pains and gains and other elements of the AoB-table provide clues for requirements, but must be elaborated in detail employing 5W1H or any other appropriate tool.

3. Conclusion

The AoB has been employed successfully in several case studies leading to a high level of involvement an excitement of the participants. The problem space has been opened up for new solution and a higher level of customer satisfaction and supporting effectiveness and efficience of subsequent requirements elicitation activities with QFD or other methods as well. However, like any QFD tool – it must be tailored to the specific context and deployment.

References

[1] Nonaka, I., Toyama, R., Konno, N.: SECI, Ba and Leadership: A Unified Model Of Dynamic Knowledge-Creation. In: Long Range Planning, Heft 1/2000, pp. 5.

[2] Nagamachi, M., and Lokman, A.M., Kansei/Affective Engineering. 2011, CRC Press LLC, USA

[3] Gebhardt, A., Pietsch, W.: Towards QFD-based Industrial Design, Proceedings of the 19th International Symposium on QFD, QFD-Institute, Ann Arbor MI 2013, pp. 84.

[4] Flanagan, J.C.: The Critical Incident Technique, Psychological Bulletin, Vol. 51, No. 4, July 1954, pp. 327.

[5] Mackert, O., Pietsch, W.: Creative and Systematic Strategy Design: Integrating QFD and Design Thinking for Creative Policy Deployment, Proceedings of the 20th International Symposium on QFD, QFD-Institute, QFD Türkiye Research Group, Izmir 2015, pp. 27.