METHODOLOGY TO CAPTURE THE CONTENT OF CUSTOMER THOUGHT: REVIEW ON APPLICATION OF ZALTMAN METAPHOR ELICITATION TECHNIQUE (ZMET) AND LADDERING METHODOLOGY

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Abstract: Mind Mapping researches carry a dual challenge of capturing; translating and communicating the most abstract ideas of consumers' requirements to the product or service development team, as a meaningful depiction, for designing and re-inventing a competitive consumer-inspired-solution. It is proved that people store their memories in pictures and abstract elements in their deeply embedded memory slots. ZMET and Laddering are two highly competent techniques employed to systematically digs deeper into consumers' mind and decode the metaphors. This paper intends to conceptually integrate these two techniques for analysing the consumers' decision process using their underlying models. This paper reviews a series of studies. It also elaborates on how both the methods compliment their advantages and off-sets the limitations. This paper acts as a guideline to apply 'mind mapping' techniques.

Key words: Attribute-Consequence-Value map, Hierarchical Value Map, Implication matrix, Laddering, Metaphor, Mind Mapping, Zaltman's Metaphor Elicitation Technique (ZMET)

INTRODUCTION

Qualitative researches go beyond the verbo-centric methodology and the verbal responses. Qualitative research techniques have evolved over a period of time from public opinions, in-depth interviews, observations, ethnographic study, projective techniques to a more complex hybrid methods to understand a very complex minds of consumers. Researches declare that human judgement is based on the declarative information- that is the information that is readily available for making decisions (Higgins, 1996; Wyer & Srull, 1989). Mind Mapping researchers involved in qualitative research have a dual challenge of capturing, translating and communicating the most abstract ideas of consumers' requirements to the product or service development team,

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as a meaningful depiction, for designing and re-inventing a competitive *consumer-inspired-solution.* Unlike marketers and product communication experts who excel in outside-in communication, for positioning and marketing the product, its features and benefits, the mind mapping researchers need critical inside-out information on what consumers think and prefer with justifiable reasons. The abstruse preferences and ideas of consumers require intricate dig-deeper methodology for verbalising or pasteurizing a product characteristic.

The Patent process of Gerald Zaltman(1996), Zaltman Metaphor Elicitation Technique (ZMET) has its roots in neuroscience, the philosophy of mind, psycholinguistics, visual sociology, semiotics and many more. The methodology intends to answer important challenges of marketers in knowing – how my consumers think?; what kind of value system do they hold about a company and its products? Is the marketing communication perceived as intended or otherwise? What are the crucial points that attracts consumer focus and many other mind-related questions

The key ideas employed in developing ZMET are:

Our social exchange system relies on a dominant portion of non-verbal communication (Weisner, 1988; Knapp, 1981). It is proved that two-third of the stimuli received by our brain are non-verbal in nature, which is synthesized for further physical and mental reactions. Physical gestures, facial expressions, attire, perfumes, spatial zones, and the other Para-hues of non-verbal communication play an important role in forming a pre-conceived notion towards a person – also applicable to products - and the subsequent relation.

Brain researchers have affirmed that 'mind's eyes' stores memories as images, in an order that is interchangeable. Any visuals, auditory, experiences are stored as visual slots that are retrievable, re-arrange able, modifiable and more importantly communicable.

People associate and relate one 'thing' with another. The thing could be an object, an experience or an abstract thought. This forms the basis for forming of perceptions. Zaltman states these metaphors are the centre to cognition, the evolved state of thinking and knowing stems from here. People on an average use six metaphors per minute in their conversations / speeches.

The mental metaphors are given a stamp of approval by the experiences. This neurological and cognitive base is the profound initiator of interpersonal (connate to product also) relation. It is clear at this point that metaphors get deeply embedded in a thought, which gets reflected as an action.

Human decisions is a mix of emotion, intelligence, past and expected experience, in different compositions for different occasions and that differ with the product, its manufacturer, locality, and any other factors that are anchored around metaphors. Human reasoning is accompanied by meta-cognitive experience (Schwarz Norbert,

2004), subject to the ability to recall, generate and process new information. They act as the basis for judgement, supported by declarative and experiential information.

The deep set thought process can be mapped when mental models are plotted. Mental models that guide perceptions and behaviour. Multi-sensory stimuli to record the intervening perceptual pattern can be choice to comprehensive understand the synaesthesia and the thought process. However, Zaltman recommends a study on saccadic eye movement to develop the consensus map which elaborates the feelings, preferences and opinion of the consumers diagrammatically.

The patented ZMET process recommends a special probing procedure to understand the consumers' mind-preserved images and maps. ZMET engages neural process of thought and helps the respondents retrieve the metaphor visual and non-visual hues that represent context under discussion.

STEPS INVOLVED IN ZMET

Step 1: Clearly define the context of the study. For example, what do they (the consumers) think about a product, company or any object or phenomena under study? Ask the consumers participants / respondents to collect at least 12 visual hues that reflect the metaphor in their neural system (ie., their thought). One week to ten days' time is given for the respondents to collect the images and produce the same during a follow-up interview. The images can be any source starting from a newspaper clip to a family album. The only constraint placed is that the participants should not collect the pictures that are related directly to the product or its category, company or its explicit personifications like its own brands etc., It is proved that participants' show a high degree of involvement in collecting images that represent the hidden notions – pictures, formulae, para-sensorial objects etc.,

Step 2: This step is arranged in two phases. Phase one will elaborate on the interview techniques and phase two on Laddering technique employed for data collection and data recording

During the elaborate ZMET interview process, the participants are allowed to use multiple-sensory-explainers and metaphor surfacing techniques like story-telling, missing pictures, Triad tasks, expand the frame, expand-the-frame and para-sensorial probes, vignette and digital imaging- methodology of the same is briefly given below. The convergence of thought is an affirmation that the metaphor is valid. Higher the redundancy, higher is the degree of convergence of thought and accurate is the catch of mind in the form metaphors, on the subject of the study.

During every phase of the interview a self-declarative soft-laddering technique is employed. Laddering helps researchers and marketers collect meaningful data, systematically. It is a means-end technique that cautiously probes and links Attributes – Benefits-Values. Based on the obtained data ladders could be built. It is believed that

identical segments share similar mind-scape. Laddering technique emerged in the field of clinical psychology. It was initially defined by Dennis Hinkle (1965) to model the concepts and beliefs of people. The term 'Laddering' was coined and cited by Bannister and Mair (1968) for the unpublished work of Hinkle. This technique is highly recommended in researches that investigates peoples' personal values according to Means-End Chain (MEC) theory (Botschen, Thelen, & Pieters, 1999; Dibley & Baker, 2001; Gengler, Mulvey, & Oglethorpe, 1999; Gengler & Reynolds, 1995; Lin, 2002; Reynolds & Gutman, 1988; Reynolds & Whitlark, 1995; Valette-Florence & Rapacchi, 1991; Vriens & Hofstede, 2000; Wansink, 2000; Woodruff & Gardial, 1996).

ZMET Interview phases

- Story telling method: During this phase of the interview, participants are asked to weave a story around the pictures they have brought. Trained interviewers adopt soft-laddering techniques to gain insight on the metaphors and develop the Attribute-value-consequence model or on a higher order cognitive consensus maps.

- Missing pictures: The interviewers record the response of the deliberate probe on the participants on any missing links, ideas, feelings or thoughts which they were unable to capture as a picture.

- Triad Task: Here the interviewer would select three pictures that are identical thought-reflectors and dig deeper on how one is superior to the other, again using soft laddering technique.

- Expand-the-frame and para sensorial probe: To identify the dilemma and hidden ideas, the participants are asked to expand the frame of thought or simply the frame of a picture to include any object, person, para-sensorial depiction like loud noise or music, bright colour or timid caricatures etc., This step is repeated for confirmation

- Vignette: In order to engage all parts of the brain, the participants are asked to elucidate a short film on the pictures brought by them- with a scenario details like location, time, context, players, props, back ground screen, music, SFX and all other details. This helps to ensure that the thought represented as a still picture matches with that of a sequential flow of details

- Digital Imaging: With the help of a computer graphic designer, participants are encouraged to arrange the pictures brought in a layout of their choice, by resizing, reshaping, colour-corrections and with any other creative buffs. This step provides an interpretative tour on their thought.

From the above process constructs, consensus map and priority listing of metaphors can be derived.

Laddering for data collection and data recording

This step is a hypothetical deliberation on integrating ZMET with Laddering for performance excellence.

Laddering is based on Means-Ends Chain model. The first version of MEC and the guideline for creative purpose was framed by Young and Feigin, 1975. MEC model intends to analyse why and how a product or a phenomena is important to an individual beyond its functional properties. It evolved to represent consumer decision as a cognitive chain, Gutman (1982), that connects product attributes to benefits, conscious choice driven by personal values. The prime underlying assumptions are:

An Individual's personal value drives his/her choice to attain a pre-defined desired result. Product attributes are the means to attain the end result. Consumption-relevant knowledge is placed in memory as hierarchical structure, with differing degrees of level of abstraction to concrete assertions. People learn to associate particular consequences with a particular action (Gutman, 1982). It is called Attributes – Benefits-Values link. The cognitive structures are labelled as means-end chain and are the result of learning and experience processes (Reynolds and Gutman, 1988). The broadened six-level model developed by Olson and Reynolds (1983) is a broadened chain where Attributes are classified as concrete and abstract, Consequences are divided as functional and psychological and personal values as instrumental and terminal. The same is represented as Table 1.

Table 1
Six level Mean-End Chain Model

Attributes	*Consequences/ Benefits*	*Values*
Concrete	Functional	Instrumental
Abstract	Psychological	Terminal

Oslon (1989)

Step 3

An integrated Data Recording and interpretation process

Data interpretation requires three counterparts to co-work. Three parties are – consumers who voice their abstract notion, researchers who connect to metaphors and their hidden meaning and marketers who translate the semi-structured constructs as marketing propositions.

Merging ZMET and Laddering for data recording and interpretation can follow four stages, as recommended by Gengler and Reynolds (1995)

• Data coding and data reduction: The verbatim notes that are recorded during the interview stage are content analysed, coded and placed in the appropriate slots of MEC six stage model.

• Implication matrix for every convergent pair of response or relationship: Thus arranged data can be used for developing an implication matrix. Implication matrix act as a bridge between quantitative and qualitative research, (Devlin and Britwistle, 2003) According to Reynolds and Gutman (1982, pg.20)' The

implication matrix should be a square matrix enlisting the elements understudy in both the rows and columns'

• Developing a meaningful representation using Hierarchical Value Maps (HVM): Hierarchical Value Map is a graphic representation of relations between how people perceive an object, a brand, a product or any other phenomena – identifiable or hidden unarticulated (attribute); to attain the desired result – catered or unchartered by self and /or the marketer- which could suffice the psychological or functional consequence otherwise said benefit; on to exploring the personal value system and profile of the respondents

How both the techniques off-sets the drawbacks and compliments their advantage

Some of the in-built limitations of Laddering methodology are off-set by ZMET, and the contra, to derive a more valid qualitative research inputs. According to Grunet and Grunert (1995) the validity of Laddering relies on the predictive objective of individuals' cognitive structures, which varies from one-person to another and standardisation of the cognitive structure brings in an in-built limitation to the methodology. Soft laddering technique, though structured greatly acts as a lead-on interview, interviewer's probing style can set-in biases in data collection. When collecting data on abstract ideas using laddering technique, the respondents tend to elucidate newer associations to suit the interviewer's requirement.

These limitations are overcome in ZMET where the respondents are given a week to ten days to collect pictures of their choice and the probing are only based on their response. Therefore the degree of interviewers' interference in the process is greatly reduced, which avoids standardisation of cognitive structures and biases.

Besides Grunert and Grunert (1995) argue that involvement of interviewers in content analysis can act as a source of bias. ZMET overcomes this drawback by involving all the three stake-holders – respondents, researchers and marketers – who contribute effectively in content analysis, with in their meaningful premise.

In laddering technique, as indicated by Lin (2002) predefining, selection and grouping of elements employing a subjective process bears a chance of eliminating relevant and valid variables. This is completely eliminated in ZMET which is a free-rein.

Grumert and Grumert (1995) explain that ladders built from interview may reveal only a portion of the cognitive structure. They are complex, inter-related and are highly dependent on a network of associations. This drawback in laddering is off-set by the different stages of interview that interweaves several para-sensorial cognitions.

Laddering provides an indicative mandate on the look-out variables clearly classified as Attributes, Benefits and values embedded in deeper degrees of cognition, in the order. Laddering also helps in systematically developing a modified Hierarchical Value Map (HVM) that records the points of convergence. The modified HVM may neglect the cut-off limits to evade the bias due to omission.

Example: Analogously, to explain the state the points of integration of ZMET and Laddering, let us assume that a marketer wishes to dig deeper on consumer perceived value about 'Premiumness of a bio-toothpaste' of Toothpaste.

Enlist Consumers value, consequences and attributes derived during the course of ZMET interview employing laddering method to create an implication matrix as shown in Table-2. Care should be taken in not pre-defining the attributes, benefits or values and/or their cut-off levels.

Table 2
Implication Matrix

Elements		A1	A2	…	A28
Certification	A1				
Cleaning	A2				
Convenience	A3				
Delivery cost	A4				
Easy purchase	A5				
Easy return policy	A6				
Enlist the ingredients	A7				
Extra gift	A8				
Freshness	A9				
Good smell	A10				
Kills germs	A11				
Modern	A12				
Natural	A13				
Nutri benefits	A14				
Prevents cavities	A15				
Product Promise	A16				
Pro-Family	A17				
Protective	A18				
Reasonable price	A19				
Recommended by dentists	A20				
Security	A21				
Sense of belonging	A22				
Strong teeth	A23				
Traditionally proven	A24				
User reviews	A25				
White in colour	A26				
Whitening	A27				
Without Fluoride	A28				

The implication matrix can be transformed as a Means End Chain (MEC) Matrix, accounting for the convergent point of the identified values, benefits and attributes. The ACV map can be statistically validated through the relationship scores to form HVM. The convincingly higher convergent points reflect that the pictures, digital images and the para-sensorial descriptions used by respondents reflect the deeply

Instrumental Value **Pro-Family**	Functional Benefit- *'strong teeth'*	Concrete Attribute - Prevents cavities
		Abstract Attribute - Freshness
	Psychological Benefit- *'Modern'*	Concrete Attribute - White in colour
		Abstract Attribute - Modern

Terminal Value **Certification**	Functional Benefit- *'Recommended by dentists'*	Concrete Attribute - Nutri benefits/ traditionally proven/ ingredients/ without fluoride
		Abstract Attribute - User reviews
	Psychological Benefit- *'Security'*	Concrete Attribute -Product Promise
		Abstract Attribute - Natural/ sense of belonging

Figure 1: ACV map

embedded values through the metaphors. The ACV map given in Fig-1 can be made as a pictorial depiction by inserting all the pictures and other metaphors, without any exclusion, to frame an insight info-graphics.

CONCLUSION

The integrated model of ZMET and laddering can be used to explore the hidden meaning behind human actions. This method is all about value creation – selecting, designing, delivering and excelling the values expected by customers. Further empirical research in integrating ZMET and laddering techniques could result in an evolved and a standardised methodology, capable of catering the current marketing challenges in understanding customers' mind

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