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Not just *what* they want, but *why* they want it: Traditional market research to deep customer insights

Introduction

Within a typical business-customer relationship, companies will often take on an organisationcentric approach, asking questions similar to those described by Osterwalder (2010: 129), such as "what can we sell customers and how can we make money from them?". However, this formula very rarely assumes market success (Zaltman, 2003). New products that do fail in the market fail because consumer needs and wants are not always satisfied (Trott, 2001). Conversely, Zaltman (2003) argues that marketers do not understand how their customers' minds operate, in particular *why* customers think and behave the way they do. Companies can no longer rely on the cheapest price, technological breakthroughs and incremental product development to gain a competitive advantage (Kyffin and Gardien, 2009). Consumers have information readily available, and are able to change brands or services at any given time (Sen, 2009). This quick shift in consumer preferences, tastes, and habits may not be anticipated through traditional forms of market research methods (Sen, 2009). It is for this reason businesses need to be engaged with their customers on a deeper level (Teece, 2010), to understand not what they want, but *why* they want it (Drews, 2009).

Design and the culture of design thinking, is now perceived as a ubiquitous capability essential to creating and capturing new value through a better understanding of customers and their broader need (Dell'Era and Verganti, 2010). A shift towards design as a resource for linking strategy to innovation (Beckman and Barry, 2008; Brown, 2008; Martin, 2009; Verganti, 2009) has been validated by a number of policy-driven innovation schemes across the world which seek to implement design knowledge within non-design firms (Brown, 2008; Design Council, 2012;). The value of design lies in the way designers approach problems; typically from multiple perspectives (Cross, 2006), iteratively prototyping and improving upon possible solutions (Dorst and Cross, 2001), whilst simultaneously synthesizing the user's needs and desires with what is technologically possible (Brown, 2008). With this value in mind, the role of design has now progressed to the strategic level of business. Design now plays a vital role in aligning deep customer insights with the internal operations of a business to encourage growth and develop innovations beyond the product and service arena alone (Bucolo & Matthews, 2011). The recognised industry value of design has been reflected by growing bodies of literature associated with the domains of design thinking (Brown, 2008; Martin, 2009), design driven innovation (Verganti, 2009) and design strategy (Teece, 2010; Drews 2009) related fields. Design-led innovation fits within the specturm of design and innovation as an innovation process which begins with gathering deep customer insights using design techniques and skills core to design practice (Bucolo, Matthews, Wrigley, 2012)

Integrating design methods and thinking within business management is seen as a way to innovate and provide new value propositions to customers (Verganti, 2008). A more traditional use of design is

confined to the manufacturing and production area or as a styling afterthought (Matthews and Bucolo, 2012). However, design companies such as IDEO and Alessi have used design thinking and designdriven innovation (design-led innovation and design integration) to gain deep customer insights which have provided the foundation for considerable market success. Design-driven innovation aims to radically change the emotional and symbolic content of products through a deeper understanding of broader changes in society, culture and technology (Verganti, 2008). Instead of being pulled by user requirements, design-driven innovation is pushed by a deep understanding of customer meaning and value (Verganti, 2008, p2).

A design approach requires alternate skills in addition to existing marketing capabilities. Zaltman (2003) explains that marketers can 'fail to dig more deeply' below surface-level thinking and behaviour while conducting market research. Marketers should be diving deeper and questioning a customer's *why*, while inviting the customer to interact rather than simply react to questions and instructions. Whilst market data is essential in revealing broad sociocultural trends, deep customer insights enable a deeper understanding of why consumers behave in certain ways and why certain choices are made. Witell, Kristensson, Gustafsson and Löfgren (2011: 143) explain "in order for companies to meet the demands of mass communication, they must engage in an interactive dialog with customers". Replacing the passive view of a customer with an active role could provide new insights and opportunities to create market offerings with greater customer value (Humphreys and Grayson, 2008; Prahalad and Ramaswamy, 2004; Slater and Narver, 1998; Wittel, Kristensson, Gustafsson, and Lofgren, 2011).

Goffin, Varnes, Van der Hoven and Koners (2012) believe the importance of integrating the voice of the customer into new product development is universally accepted, however, the techniques used to identify customers' needs have stagnated. Xie, Bagozzi and Troye (2007: 109) state, "consumer behavior literature remains preoccupied with decision making focused on what consumers purchase, not with what they do" (Xie, Bagozzi, and Troye, 2007). Zaltman (2003: 131) proposes that managers need to use methods from various disciplines to understand customers' deeper thoughts and feelings, in order to "clearly, understand the *why* behind the *what* of consumer thinking and behaviour". For this to occur "marketers need methods that go beyond what the customer can readily articulate" (Zaltman, 2003: 75). Businesses' that seek to engage with customers at an emotive level must be equipped with the tools and skills capable of accurately interpreting and articulating emotion into meaning. A design–led approach to innovation offers the necessary platform for this new business capability to be built.

The aim of this paper is to make a novel contribution to understanding how gathering deep customer insights as a specific component of design-led innovation adds value and is incorporated into multiple firm and organisational types. This paper explores the use of TMR methods alongside DCI methods applied through a design-led approach and responds to a gap in knowledge regarding how DCI methods add value and complement existing market research approaches as a new organisational capability. In order to achieve this, the paper identifies the theoretical strengths and weaknesses of both DCI and TMR methodologies through; firstly, the review of current literature to build a platform for comparison; and secondly, report on findings from a collaborative research project that investigated various firms' application of both data collection methods and their respective

outcomes. The outcomes and implications of these findings are presented and discussed in two frameworks and a proposed project timeline which seek to provide the complementary use of both methods within industry.

Traditional Market Research (TMR) Methods

Within this paper TMR methods refer to such techniques as interviews, focus groups, surveys and questionnaires (Table 1). These techniques can occur in face-to-face settings, through phone communications or via the internet. In the majority of these methods, the process includes a moderator whose role it is to mediate, ask questions and report responses (Witell et al. 2011). Results are usually high in quantitative data and interpretations are based solely on what the customer is describing in language (Witell et al. 2011). TMR questions commonly explore the *how, what* and *where* in relation to the customer or product (Harrison and Reilly, 2011). Zaltman (2003) clarifies that TMR methods address basic marketing issues such as, how often purchases occur, store preferences, variations among market segments and their rate of change. However, these methods are also used to receive feedback on customer needs and requirements. Companies may also outsource all or some of their market research via agencies to gather and analyse results (Goffin et al. 2012). Costs of establishing each interview or focus group are moderate, whilst analysis costs are usually quite high (Griffen and Hauser, 1993).

Method	Process	Results	Example Objective
Interviews	Interviewer asks participant questions	Qualitative	What factors do you
(Face-to-face or	to gain facts, opinions and attitudes		consider when purchasing
Telephone)			this product or service?
Surveys	Participants are given a number of	Quantitative	What is the appropriate
(Online, Mail, In-store)	questions to either select pre-	and/or	price for a product or
	determined answers or provide short	Qualitative	service?
	answer responses		
Focus Groups	Interviewer interacts with group	Quantitative	What areas would you
(Sample of existing	participants to gain facts, opinions and	and/or	suggest for improvement?
customers)	attitudes	Qualitative	
Questionnaires	Participants are given a number of	Quantitative	What would you rate the
(Online, Mail, In-store)	questions to select a pre-determined		current product out of 10?
	answer which best suits their response		

Table 1. Traditional Market Research (TMR) Methods

TMR Methods - strengths

Traditional marketing research methods work well in several circumstances, such as when there is little change in the customer and competitive environment, or when customers can readily articulate and recall thoughts and needs (Zaltman, 2003). Insights from these methods can quickly tell what are 'top scoring products' or what pricing, packaging and descriptions will 'resonate best in the market' (Sen, 2009). Statistical analyses of questionnaire and survey data are able to be analysed quickly and produce large quantities of results. Surveys are also able to reveal associations and correlations

among responses that might not surface during other methods (Harrison and Reilly, 2011). Online surveys are able to be dispersed to variety of people and locations for quick feedback requiring only a limited budget (Sen, 2009). Surveys are most reliable when they ask respondents to consider very familiar issues or to describe a decision they are about to make (Graves, 2010). Spoken needs can be obtained through surveys and focus groups research methods (Griffin and Hauser, 1993). Many managers use focus groups and it remains the most popular method in marketing, as they are easy and affordable to implement (Zaltman, 2003).

TMR Methods - weaknesses

TMR methods can be particularly "intimidating" to most small to medium size enterprises, due to limited budgets or lack of expertise in-house (Sen, 2009). Sen (2009) therefore believes that most decisions are done in meeting rooms with little to no first-hand interaction with customers.

TMR methods rely heavily on customer self-reflection and awareness, as they concentrate on capturing a customer's previous experience with a product or service (Witell et al. 2011). Graves (2010: 4) believes the "conscious mind finds it almost impossible to resist putting its spin on events", therefore, these methods have been referred to and categorised as 'reactive' or 'backwards looking' (Johnson, 1998) due to questions being predetermined (survey) or providing limited responses (questionnaires) (Witell et al. 2011).

Focus groups are also unable to provide the setting for deeper discussion, as moderators are unable to build the trust necessary for participants to share personal thoughts and feelings (Langford and McDonagh, 2003). The average speaking time for a participant is ten to twelve minutes, with some participants speaking more than others (Rubin and Rubin, 2011). Data collected from focus groups can be difficult to analyse deeply because of the social influences present within the focus group setting (Sen, 2009).

The framing of a question can produce a range of different insights and influence answers. However, even a well-written question can limit a consumer articulating their needs (Slater and Narver, 1998; Trott, 2001) as most are not aware, able to identify, or articulate what their own needs are. This is often seen in relation to new products or services, as the consumer has very limited or no prior knowledge or experiences to reflect upon (Zaltman, 2003). This greatly limits the opportunity to provide new insights and thoughts that lie outside the prepared interview or questionnaire (Goffin, et al., 2012; Trott, 2001; Wittel, et al., 2011). This is evident, as more than 80 percent of market research is used to reinforce existing conclusions, rather than to test or develop new possibilities (Zaltman, 2003). Even with these limitations the practice of collecting market research through traditional forms continues to be used. Trott (2001) believes this may be due to such methods becoming an "accepted practice" and seen an "insurance policy in businesses". Graves (2010: 20) believes this could be due to firms being "seduced by the numerology of statistics and the apparent consistency of response that market research provides". Numerical data and the sheer number of participants involved in large scale market research encourages an uptake of quantitative findings from senior management and may contribute to barriers to qualitative research methods being used within organisations (Trott, 2001).

Deep Customer Insight (DCI) Methods

DCI methods are seen as an intimate shared understanding of the latent, current and future needs of the customer (Bucolo & Matthews, 2011a). As customers play an important role in the development of products and services, they must not be seen as a source of information but as a contributor with knowledge and skills (Witell et al. 2011). Witell, Kristensson, Gustafsson and Löfgren (2011: 152) state that "active customers in the development process produce ideas that are significantly more innovative than those generated through TMR techniques". A method to reveal deep customer insights is not to question the *how*, *what* and *where*, but *why* certain consumer decisions are made (Bucolo and Wrigley, 2012).

A design-led approach aims to help businesses successfully innovate, differentiate and compete in a global marketplace (Bucolo and Matthews, 2011). It is broadly defined as an approach which allows a company to consider and evaluate radically new propositions from multiple perspectives, typically spanning user needs, business requirements and technology demands (Bucolo and Matthews, 2001). The key to a design-led approach is the ability to build deep customer insights through a deeper understanding of customer meaning and value, rather than being pulled by user requirements (Bucolo and Matthews, 2011; Verganti, 2006). Many of the methods used originate from a user-centered design approach and include user observations, scenarios of use, task analysis, personas and storyboarding (Prahalad and Ramaswamy, 2004) (Table 2). The aims of these methods within a product design context are based on the needs and interests of the user, influencing the product's usability and understanding (Norman, 2004). However, in a firm-level context these tools allow companies to connect and create value with their customer (Bucolo and Wrigley, 2012), extending beyond just pleasing a customer's superficial needs. Unlike TMR methods the goal is not to evaluate a particular feature or experience of an existing product or service, but understand the customers' why through deep customer insights. The use of these methods allows a firm to place itself in the position of the customer, not by questioning their needs, but trying to understand their values (Prahalad and Ramaswamy, 2004).

Method	Process	Results	Example Objective
Persona Design	Detailed fictional character is	Qualitative	Customer to relate to persona
(Face-to-face)	created. Demographic, goals,		to prompt open and honest
	experience, behaviour, motives are		responses.
	included		
Story-telling / Story	Asking customer/user to tell a story	Qualitative	Uncover contradictions,
Board (Face-to-face)	about their experience		failures at meaningful level.
Customer Narratives	Creation of a touch point timeline	Qualitative	A customer narrative that
(Face-to-face)	which explores the major touch		explores all the relevant touch
	points within a customer's		points within the story of how a
	engagement with a business,		customer purchases a product.
	product or service		

Table 2. Deep Customer Insight (DCI) Methods used in a Design-led Approach to Innovation

Scenarios	Images are used to contextualise	Qualitative	Illustrate different scenarios of	
(Face-to-face)	the story, along with short written		use. Outline current and future	
	descriptions		everyday practice.	

DCI Methods - strengths

In a design-led approach the method of storytelling helps to set the scene and connect with the customer. There are two types of stories, those informing user needs in the present and those that inspire the design team on behalf of the customer (Beckman and Barry, 2009). Informative stories can surface contradictions, due to the fact that what a customer says and what they actually do often differ (Beckman and Barry, 2009). Beckman and Barry (2009) consider these contradictions to generate interesting insights into how people think, as what is said provides insights into what a customer wants to believe, however, might not do. Within the process of gathering deep customer insights, persona and scenario design are used to allow customers to make a connection with a fictional character or situation. This creates open and honest responses, as the customer is able to relate with a pseudo character or a particular situation.

Gathering deep customer insights can be achieved rapidly through narrative production and testing in short week-to-week cycles. DCI methods do not rely on product development processes that are generally drawn-out of trial and error, 'ping-ponging' between manufacture and customer (Thomke and Von Hippel, 2002). Traditionally, marketers will present a customer with a prototype or image (usually incomplete or partially correct), and the customer provides feedback, this cycle is usually repeated until the customer is satisfied (Thomke and Von Hippel, 2002). This process is costly and time consuming. Deep customer insights are able to by-pass this process through the use of a highly descriptive and illustrative toolkit. Persona design and scenarios are able to explore and identify relevant social aspects that influence a customer (Chamorro-Koc, Adkins, and Bucolo, 2012). Such influences are not product-related, but connected to such things as cultural background and financial issues (Chamorro-Koc, Adkins and Bucolo, 2012). As Hogg and Maclaran (2008) explain, qualitative research knowledge is subjective to the participants' frames of reference, interpretations and depictions of social experiences. These methods also anticipate future users' needs and build proposals to which users' are encouraged to give feedback (Bucolo and Matthews, 2011a).

DCI Methods - weaknesses

Qualitative research as an approach is not straightforward and does not promise transparency, as there are no set rules to be followed (Kapoulas & Mitic, 2012). Difficultly arises as words and images do not offer a uniformity of meaning like numbers and equations. Qualitative research as an approach is "a conscious search for meaning and understanding" (Gummesson, 2005: 311). Thomke and Von Hippel (2002: 74) agree with the drawbacks of this method and proclaim "the difficulty is fully understanding customers' needs as it is often a costly and inexact process". The non-linear nature of design dictates the disorderliness felt by a firm when deploying this data collection method. The inability to fully detail what problem (and therefore questions) the method is trying to address is an

additional weakness many firms grapple with. Gathering deep customer insights "can be costly and time-consuming because customer needs are often complex, subtle, and fast changing" (Thomke and Von Hippel, 2002:76). By their very nature, emotions are complex and multifaceted; thus, capturing them is a challenge and not a simple task. Nor is any emotional experience one customer may have the same to that of another.

Other disadvantages include the depth of interaction the researcher must have with the customer. Gaining access to customers in some industries can be difficult, and in some cases logistically impossible. The complexity of data collected can result in a complicated analysis process, demanding more time and therefore more cost to the project. The nonlinear approach to gathering the data in addition to the plethora of data collection techniques and tools used at various intervals can be confronting and confusing for the firm. Thus requiring some level of understanding of the design process, and a level of empathy for the customer that may not be developed in the facilitator or in the firm. Expertise is also required to facilitate the non-traditional methods as well as to interpret the insights from the data collected. Interpreting qualitative data requires expertise to accurately discern findings which are valid. A bias may exist in firms as to how data analysis is completed within the qualitative domain. In a design-led approach, employees within the company are encouraged to gather deep customer insights, in order to minimise possible logistical difficulties faced by external consultants.

Research Approach

This research project was conducted with the cooperation of representatives from five Australian small to medium enterprises (SMEs) and eight multi-national corporations (Table 3) in order to understand how the gathering of deep customer insights as a specific component of design-led innovation adds value and is incorporated into multiple organisational types. These firms varied from product manufacturers, financial institutions to service and infrastructure providers. All firms had previously taken part in a design-led approach to innovation educational program where they were exposed to the process of gathering deep customer insights as a novel method to assist in building customer relationships. For each firm, the program was completed over twelve months (CY2012-13). The purpose of the engagement program was to integrate design as a business capability through the dissemination of the tools and skills of a design-led approach to innovation. To achieve this each firm applied these to a project directly relevant to their business need. This research paper reports directly on the value of this approach for these projects.

No.	Industry Sector	Size	Firm Representative
1	Transportation	Multi-National	Marketing Manager
2	Healthcare	Multi-National	Marketing Manager
3	Infrastructure	Multi-National	R&D Manager
4	Manufacturing	SME	Sales Manager
5	Manufacturing	Micro - SME	Director
6	Manufacturing	SME	Product Manager
7	Manufacturing	SME	Brand Strategist
8	Insurance	Multi-National	Product and Service Manager
9	Finance and Banking	Multi-National	Product and Service Manager

Table 3.	Participan	t Organis	ation	Summary

10	Finance and Banking	Multi-National	Product and Service Manager
11	Manufacturing	Multi-National	R&D Manager
12	Manufacturing	Multi-National	Engineering Manager
13	Finance and Banking	SME	Product Manager

After this period, firm representatives (as identified within Table 3) actively involved in the designled approach program (including heads of department, product development managers, marketing and customer managers and brand strategists), were interviewed to gain their perspective on existing TMR and DCI methods and respective outcomes. The thirteen semi-structured interviews sought to understand the differences between data collection methods and their achieved outcomes. Participants were questioned on their current and past research methods, their role in applying these methods, and the perceived value of each approach. Their initial expectations, perceptions, and the value the firm received from each method were also explored.

The semi-structured interviews were conducted in a face-to-face setting lasting approximately 60 minutes. Responses were recorded and transcribed with participant consent (Myers, 2009). Investigator triangulation was utilised by each researcher conducting the interviews (Collins, 2010). Transcripts were then analysed using a thematic approach (Braun and Clarke, 2006; Miles and Huberman, 1994) to uncover consistent themes. Identifiable firm intellectual property was excluded from the analysis for ethical purposes. As this data did not align to the scope of the study, exclusion has not impacted the reported findings. The analysis was completed by the research team using a grounded theory data management technique, firstly to identify codes, secondly to group codes into similar concepts, and thirdly to group comparable concepts to generate theory (Miles and Huberman, 1994). The use of analysis triangulation allowed each researcher to both analyse the results separately and amalgamate data in order to validate findings.

Findings

Findings reveal how DCI methods were received across a variety of industries, what value was derived, and how the design-led approach challenged existing methods of collecting customer data. Previous data collection focused on researching identifiable problems, with a quantitative research approach presenting customers with closed questions or in some cases, multiple choice surveys. The application of DCI methods challenged prevailing attitudes regarding the depth of understanding possible through qualitative consumer research. The study produced three overall themes, *i*) position of the customer, *ii*) data collectors and *iii*) actionability + opportunities.

Position of the Customer

Within a majority of firms, traditional market data collection formed part of everyday business. Research methods utilised included questionnaires, short interviews, meetings, product demonstrations and networking. One firm revealed conducting no market research at all, with another believing their approach gathered *"enough valuable information to place us in the comfortable market position we are in today"*. Existing qualitative research methods employed by most firms were both basic and linear in structure, providing limited useable outcomes. One

participant summarised existing TMR methods employed by the firm as primarily transactionfocused.

"Previous research was more like, did you buy this today? Yes or no? What sort of [services] would you like to see in the [business]? It was very basic and didn't delve into the actual mindset of [customers] at all."

Interviewees also recognised the role of TMR in setting quantifiable boundaries to facilitate incremental change to existing products or services. A representative explained, "most techniques ask customers what they would like improved, or what they would like in a specific situation." TMR methods were found to constrain customer responses to a specific timeframe and context. "[Market research] generates solution-based insights from customers as they interact with a product or service in the now".

After exploring the use of DCI methods, a firm representative remarked "we gained a greater understanding of the influence of other factors on the use of our products".

In many situations firm representatives said that their current methods only focused on how a customer interacted with a product in its current context, not questioning before or after the product was purchased as an area of broader inquiry.

Uncovering the 'why' underpinning customer behaviour through DCI methods was also found to be new to firms' existing research methodology. "We've never specifically asked our customers 'why'. We'd undertaken qualitative research before, but we couldn't really generate any thoughts of our own from the results". After implementing DCI methods a firm representative stated: "It focuses on factors influencing customer behaviour" and "rather than focusing on the solution it spoke of possible concepts and the indirect influences in the customer's everyday life". One firm representative believed this to be the differentiating factor between DCI and TMR as the use of a narrative "was a proposal in the future using fictional characters".

Several firms suggested they would benefit from continued application of the DCI method, commenting that the approach provided an understanding of customers' 'why', allowing the business to contexualise issues and focus on identified problems areas. One firm planned to apply TMR's quantitative research methods to validate their DCI results.

Data Collectors

Understanding who conducted and collected the TMR and/or DCI data was found to have impacted upon the emotional undersigning '(*why*') of the customer.

Within the interviewees it was revealed that a variety of people conducted TMR, ranging from internal marketing and sales teams, outsourcing to consultants, and business development personal. Most of the firms did not have direct contact with the customers of whom the data was being collected from, stating they *"rely heavily on key stakeholders within the business to direct the marketing activities through our general exposure to customers"* but those who did, would either *"talk to and listen to customers to provide valuable insights"* or speak *"directly with the customer through meetings and product demonstrations in order to get customer feedback"*. In these situations the, 'voice of the customer' was employed largely involving product-orientated inquiries (i.e. features, colour, size etc.).

During the exposure to DCI methods participants were guided through the use of various design tools. Feedback suggested that process and tools provided new and more suitable ways to approach customers, particularly with culturally sensitive customer segments. Participants mentioned how approaching customers with a persona design encased in a narrative prompted the participants to be more giving of their time and information. "*I thought the tools were very clever in that they allowed us to approach [customers] in a new way that was less direct or personally intrusive, but still engage them and have them share with us.*" Another firm stated, "we learnt more about the pain felt by the customer" and "utilising the narrative method in approaching customers allows us to test our assumptions, something that we need to do more of."

In the DCI methods the firm representative was either the main data collector or participated in data collection indirectly. One interviewee reflected upon the process, "we were guided on what needed to be done to make our future proposal come true... all this information was then fed into the solution - in a way the customer co-created the solution with us." Another firm representative commented that the use of the "customer input and reactions to the story helped us refine the narrative and include emotional drivers in the solution".

Firms reported the role of the data collector to be external to the firm when TMR methods were undertaken, as it was a cost effective way to outsource market information. The DCI approach to market research prompted the data collecting role to be brought in-house reflecting the shift in the role of a customer from one of passive voice to active contributor. Overall firms saw the impact of their own role in the process as the ability to better understand the emotional drivers of their customers and see first hand the DCI possibilities; *"using this [DCI] process highlighted to me how great the influence of behaviour and emotion is in the buying decision and how you can truly create a solution that customers will love."*

Actionability + Opportunities

DCI methods were valued within all firms and whilst the approach faced barriers due to the qualitative nature of the outcomes, it was the opportunities and actionability of the DCI results that enabled firms to find value in such a capability. One interviewee commented on the outcomes and the effectiveness of TMR and DCI methods:

"It is effective because it provides broad market data and breaks down the customers behaviour statistically which presents a good platform of understanding...However, market data provides very limited depth, or a 'why' behind customer behaviour which makes it difficult for stakeholders to innovate or be creative."

The use of TMR methods provides a large amount of quantitative data that in one firm representative's opinion was important, *"in capital sales, as it provides enough information to get the job done. For customer support, this form of information does not provide nearly enough information to accurately provide this service to the market."* The predominate opinion regarding TMR methods described them as generally effective but not necessarily be the most appropriate approach, with a firm commenting, *"we believe there is a lot more we could be doing to be actively scoping information about the market."*

It was noted that TMR presented its questions as solutions to the consumers, and firms placed higher emphasis on the results rather than the process itself. However, DCI methods were not presented as solutions, rather as propositions which could be used to frame possible new meanings by which solutions could be created.

"It was a completely new concept for me, using research to build reasons and detail, not straight up solutions. It took me a little while to see that the link was the depth of results, which then helped me create solutions myself."

The overall effectiveness of applying the DCI methods was summarised by one firm, "we now find ourselves asking more of the 'why' questions with customers in order to gain some deeper information." The impact of the DCI process also found one firm reassessing and delaying the release of a product because they realised, "we didn't have a strong enough value proposition to take to the market. This came through the testing of our ideas with the customer using DCI."

Even when DCI methods were accepted within a firm, it was a process that required time to be fully implemented, as expressed by one firm representative:

"We recognise its importance in being able to produce products and services that provide value to the customer but it also requires a lot of focus and time on how we can change existing processes and structures to not only capture the information but to make sure it is internalised and translated into something meaningful."

Discussion

Of the different approaches to collecting customer data, TMR and DCI both share the same core purpose; they aim to produce an understanding of the customer's experience, however they achieve this is in very different forms and require different skills and resources. The traditional method currently used by market research teams is quantitative, formulated and predetermined (Witell et al. 2011). This approach has become an accepted practice in business as the perception remains that quantitative participant samples correlate with more reliable findings (Witell et al. 2011). Marketers may believe by collecting large quantities of customer data, they will automatically acquire a deep understanding of their customers; however, fixed response questions in particular are unable to reveal a customer's real thoughts and feelings through deeper explanation (Zaltman, 2003). The firms' participating in this research believed traditional methods provided enough information to get immediate jobs done, but commented that they could be doing more to understand their customers. Participant firms reported a greater understanding of their customer's pains after using the DCI process.

With reference to core DCI theory, establishing empathy for customers is an important milestone for creating more desirable solutions (Brown, 2008) and is seen as a key capability that business can adopt from design (Beckman and Barry, 2008). By being able to connect with their customer and understand their values, these firms could go beyond just trying to please their customer (Prahalad and Ramaswamy, 2004). Gathering deep customer insights through design provided the firms with a richer understanding as to why customers choose to engage, or not engage with certain services and

products provided. Uncovering the 'why' underpinning customer behaviour proved to be of great value to firms who engaged within the greater design-led educational program.

A correlation can be made between the themes of data collectors, positioning of a customer and actionability + opportunity (Figure 1). Primarily, identifying who conducted the research impacted upon their understanding of the role of the customer. Within the interviewed firms it was revealed that a variety of stakeholders conducted traditional methods of research, ranging from internal marketing and sales teams, outsourcing to consultants, or being conducted by business development personal. Most of the firms did not have direct contact with the customers (and stakeholders) involved in the market research. In these situations the 'voice of the customer' is employed largely involving productorientated inquiries (i.e. features, colour, size etc.) However, in the collection of DCI results the firm representatives were either the main data collector or indirectly participated in data collection. Throughout this process a representative commented that they understood the pains of their customer better, and understood how their firm could create a solution that their customers would love. They also saw the role of the customer change from simply answering questions to becoming a co-designer. This view is also shared by Witell, Kristensson, Gustafsson and Löfgren (2011) as the role of the customer is to be active, and not passive within the constraints of predetermined questions. DCI methods encourage customers to become co-designers and reveal 'gaps' that are not product related but relate to social and financial influences (Chamorro-Koc, Adkins and Bucolo, 2012). In order to reveal DCI results, data collectors are required to make a connection with the customer, which is not accessible when using predetermined questions or methods. The lack of engagement between the data collector and the customer greatly impacts upon the actionability and opportunities for possible outcomes. Zaltman (2003) believes TMR data is used to only reinforce existing assumptions or conclusions instead of testing or developing new possibilities. By having a deeper understanding of what the customer needs, desires and values, new possibilities can then be codesigned using an active relationship with the customer (and is detailed more in Figure 1).



Figure 1. Relationship TMR – DCI Methods Framework

DCI methods alone do not present outright solutions, rather they frame design briefs or a set of constraints (Bucolo, Wrigley, and Matthews, 2012) by which the participants can design or create a solution to fulfill. An initial point of confusion raised within firms was that the research was expected to produce solutions. Interviewees held a linear perception of how solutions were created from research, which was challenged by the iterative design process. In this case, the DCI methods produced provocations (Bucolo, Wrigley, and Matthews, 2012) and guided new thoughts and meanings within the firm. An innovation in meaning is the basis for radical new solutions (Verganti, 2009) by which new competitive advantages can be developed. DCI methods challenge TMR data and many businesses may not see the importance of gaining DCI results. By comparison, designers place greater emphasis on the process in order to create more innovative final solutions. The design process may seem frustrating or even unproductive to non-designers (Dorst and Cross, 2001) and this is a key challenge of embedding design within any business. Overcoming this challenge requires strong leadership, a commitment to the design process, and human resources capable of articulating DCI into industry value (Beckman and Barry, 2008). The process of gathering DCI though iterative refining and provoking of new meaning, is what develops deeper understanding of the customers' 'why' (Drews, 2009).

Even though this process may take time to be implemented, the cost of continuingly producing unsuccessful products or services will continue to result in a loss of revenue and low customer satisfaction due to marketers not understanding their customers (Zaltman, 2003). These principles reconcile consumer needs with what was desirable, feasible and viable (Brown, 2008) and an approach towards the solution that spanned multiple perspectives (Bucolo and Matthews, 2011).

Implications

The position of TMR within business was seen as being able to provide stability through numbers. However, in creating new business opportunities it was shown that knowledge of DCI methods were also needed to shift from understanding what and how consumers engage to '*why*' they were or were not engaging with products and services at a behavioural level. This highlights the need to use both methods separately but analysed together as complementing data collection approaches. To demonstrate this, the complementing methods matrix has been developed as an implication to these findings. As illustrated in Figure 2, the intention of the matrix is to indicate which research approach should be used at different stages of a project lifecycle. The matrix advocates the use of TMR once explorative and qualitative customer engagements have been established through in-house DCI methods.

The two outer axes depict idea maturity and time of project. In the ideation stages of the project, provoking methods such as persona design and story boarding should be used. By using these methods deeper, broader and honest customer knowledge can be gained. As an idea matures but is still in the earlier stages of a project, the prototyping of this idea and directions formed in the provoking stage can be tested in an active relationship with the customer. Prototyping methods within a design-led approach could include the use of customer narratives and scenarios to co-design possible solutions. Within these methods the customer is able to either relate to or distinguish differences thus providing input on the project direction as a partner. The position of the customer is that of co-designer rather than validator and in this role, the risk of market failure is reduced by designing out irrelevancies that may be formed through assumptions held within the firm about what the customer needs and wants. The cost and time associated with gathering deep customer insights is low and aligns to the early maturity level of the project, which many firms budgeted to support later development and launch stages of the project. As project maturity progresses, the concept direction can be explored and refined through the use of traditional research procedures, exploration might include interviews or focus groups, which question certain factors and personal reactions to the project direction, This might take the form of a response to a product prototype, service design, or distribution plan. Feedback at this stage can be injected into the early development, manufacturing or build phases of the project. Customer validation could then take place through quantitative market research closer to the launch or 'go live' stage of the project. For the development and support of a business case, a survey or questionnaire could be used to predict uptake or validate the current solution built through earlier active customer engagement. This suits the constraint based design of questionnaires and surveys and allows for the more detailed inquiry into finer detail. The maturity of the project is now closer to execution, therefore utilising external TMR methods at this stage builds numerical strength into the projects justification.



Figure 2. Complementary DCI – TMR Methods Matrix

This matrix advocates for DCI methods to be employed at the beginning of a project when the risk is low. As the idea matures and risk is heightened, TMR methods can then be used to validate and confirm the projects direction. By deploying this approach, both research methods are used to their strengths, while also providing a way in which risk can be mitigated throughout the entirety of a project.

The complementary methods hypothetical project timeline (Figure 3) incorporates TMR and DCI techniques into an exemplar organisational project context. The timeline illustrates how methods could be mixed in order to transition from investigating a known problem at hand, in this case a fall in market penetration for a national retailer, to exploring unknowns that may influence the occurrence of this problem from the perspective of the customer. When moving from TMR to DCI techniques, the data collector must ask themselves; do we know 'why' an event or behaviour is occurring? If the answer is yes and is established through one medium such as an online survey or focus group, then a progression to alternate techniques can be made in order to validate the known finding. If this known is an assumption, formed through intuition gained within the industry, then a marketing manager or coordinator can test these assumptions through quick prototyping such as scenarios of use and storytelling within an internal setting illustrated within Figure 1. The relationship between the utilisation of techniques can be fluid based on the nature of the project as it unfolds, or a preformulated mixed method approach can be made to provide project structure. For example a movement from large forms of data generated through surveys and performance analytics which describe how, what and where a customer's interaction takes place, can then be supported by qualitative customer insight techniques which can explore why these interactions take place. Deciding

when to utilise DCI techniques should be based on either an objective to provoke deeper responses, or prototype new ideas.



Figure 3 Complementary Methods Hypothetical Project Timeline

Summary

This paper presents empirical findings on the data collection techniques used in TMR and DCI methodologies. The authors understand the importance of both research approaches and therefore have developed the complementary method matrix to suggest the successful deployment of both methods at various intervals of an industry project. Being able to utilise both approaches separately, but together as complementing data collection approaches, provides customer insights with the numerical security of traditional research methods. This paper detailed DCI methods using a designled approach to innovation, and presented the need to create a connection with the customer emotionally. By asking a customer *why* reveals insights to the emotional and symbolic content of products through a deeper understanding of broader changes in society, culture and technology. Therefore, the use of integrating DCI methods within businesses is a way to innovate and provide a new value proposition to the customer. DCI methods provide fresh, non-obvious ways of understanding customer needs, problems and behaviours that can become the foundation of new business opportunities. It is hoped that those in a position of data collection are encouraged to

experiment and use DCI methods to connect with their customers on a meaningful level and translate these insights into value.

References

- Beckman S and Barry M (2008) Developing Design Thinking Capabilities. *Academic Research Library*, 24(82).
- Beckman S and Barry M (2009) Design and Innovation through Storytelling. *International Journal of Innovation Science*, 50: (151-160).
- Braun V and Clarke V (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2).

Brown T (2008) Change By Design. New York: HaperCollinns.

- Bucolo S and Matthews J (2001) *Design Led Innovation : exploring the synthesis of needs, technologies and business models.* Paper presented at the Participatory Interaction Conference.
- Bucolo S and Matthews J (2011) A Conceptual Model to Link Deep Customer Insights to both Growth Opportunities and Organisational Strategy in SME's as part of a Design Led Transformation Journey. Paper presented at the Design Management Toward A New Era of Innovation, Hong Kong Convention and Exhibition Center, Hong Kong.
- Bucolo S and Wrigley C (2012) Using a design led approach to emotional business modelling. Paper presented at the Design Management. Boston.
- Bucolo S, Wrigley C and Matthews J (2012) Gaps in organizational leadership : linking strategic and operational activities through design-led propositions. *Design Management Journal, 7*(1), 18-28.
- Chamorro-Koc M, Adkins B and Bucolo S (2012) Using scenarios to explore the social aspects of design led innovations. Paper presented at the Projecting design.
- Collins H (2010) Research Methods in Design Management (eds)
- Cross N (2006) Designerly Ways of Knowing. Dordrecht.: Springer-Verlag.
- Dell'Era C and Verganti R (2010) Collaborative Strategies in Design-intensive Industries: Knowledge Diversity and Innovation. *Long Range Planning*, 43(1): 123-141. doi: http://dx.doi.org/10.1016/j.lrp.2009.10.006
- Design Council (2012) Designing Demand. London, UK: Design Council
- Dorst K and Cross N (2001) Creativity in the Design Process: Co-evolution of problem-solution. Design Studies, 22(5): 425-437.
- Drews C (2009) Unleashing the full Potential of Design Thinking as a Business Method. *Design* Management Journal, 20(3): 38-44.
- Goffin K, Varnes C, Van der Hoven C and Koners U (2012) Beyond the Voice of the Consumer: Ethnographic Market Research. *Research - Technology Management*, 55(4): 45-54.
- Graves, P. (2010). Consumer.ology: The Market Research Myths, and Truth about Consumer and the Psychology of Shopping. London: Nicholas Brealey Publishing.
- Griffen A and Hauser J (1993) The voice of the customer. Marketing Science, 12.
- Gummesson, E. (2005), "Qualitative research in marketing: road-map for a wilderness of complexity and unpredictability", European Journal of Marketing, Vol. 39 Nos 3/4, pp. 309-27.
- Harrison, R.L., & Reilly, T.M. (2011). Mixed Methods Design in Marketing Research. *Qualitative Market Research: An International Journal, 14* (1).
- Hogg, M.K. and Maclaren, P. (2008), "Rhetorical issues in writing interpretivist consumer research", Qualitative Market Research: An International Journal, Vol. 11 No. 2, pp. 130-46.
- Humphreys A and Grayson K (2008) The Intersecting Roles of Consumer and Producer: A Critical Perspective on Co-Production, Co-Creation and Prosumption. *Sociology Compass*, 2.
- Johnson M (1998) *Customer orientation and market action*. Upper Saddle Hall, NJ: Prentice Hall. Kapoulas, A., & Mitic, M. (2012). Understanding Challenges of Qualitative Research: Rhetorical
- Issues and Reality Traps. *Qualitative Market Research: An International Journal, 15*(4), 354-368 Kyffin S and Gardien P (2009) Navigating the innovation matrix: an approach to design led innovation. *International Journal of Design*, 3(1): 57-69.
- Langford, J., & McDonagh, D. (2003). Focus Groups Supporting Effective Product Development. New York: Taylor & Francis
- Martin R (2009) The Design of Business: Why design thinking is the next competitive advantage: Harvard Business Press.

Matthews J and Bucolo S (2012) Creating new possibilities: using design processes to overcome constraints.

Miles M and Huberman A M (1994) *Qualitative Data Analysis: An Expanded Sourcebook*. Thousand Oaks: Sage Publications.

Myers MD (2009) Qualitative Research in Business & Management. London: Sage.

Norman D (2004) Emotional Design. New York: Basic Books.

Osterwalder A, Pigneur, Y and Clark T (2010) *Business model generation: a handbook for visionaries, game changers, and challengers,* Hoboken, NJ: John Wiley & Sons.

Prahalad C and Ramaswamy V (2004) Co-creation experiences: The next practice in value creation. Journal of Interactive Marketing, 18.

Rubin H and Rubin I (2011) *Quantitative interviewing: The art of hearing data*: Sage Publishing Inc. Sen P (2009) Market Research Cost How Much? *Franchising World*, 41(10): 14-15.

Slater S and Narver J (1998) Customer-led and Market-orientated: Let's not confuse the two. Strategic Management Journal, 19.

Teece D (2010) Business Models, Business Strategy and Innovation. *Long Range Planning, 43*(April), 172-194.

Thomke S and Von Hippel E (2002) Customers as Innovators. *Harvard Business Review, April*(74-81).

Trott P (2001). The role of market research in the development of discontinuous new products. *European Journal of Innovation Management, 4*(3), 117-126.

Verganti R (2008) Design, Meanings, and Radical Innovation: A Metamodel and a Research Agenda. *Journal of Product Innovation Management,*, 25: 436–456.

Verganti R (2006). Innovating through design. Harvard Business review, December, 114-122.

Verganti R (2009). Design-Driven Innovation: Changing the Rules of Competition by Radically Innovating what Things Mean. Boston: Harvard Business Press.

Wittel L., Kristensson P, Gustafsson A and Lofgren M (2011) Idea Generation: customer co-creation versus traditional market research techniques. *Journal of Service Management*, 22(2): 140-159.

Xie C, Bagozzi R and Troye S (2007) Trying to presume: Toward a theory of consumers as cocreators of value. *Journal of Academy of Marketing Sciences, 36*.

Zaltman G (2003) How customers think: Essential insights into the mind of the market. Boston: Harvard Business Press.