# Investigating Choice Overload in a B2B context


## ABSTRACT

While choice or information overload, the idea that one is faced with numerous choices and lots of information in any single purchase situation, has been extensively studied in a consumer context, no research has looked at whether the number of potential suppliers available in any one product category will impact relationships and networks in Business-to-business (B2B) markets.


Within consumer marketing both the positive and negatives sides of large assortments and therefore greater choice have been extensively researched, from business, economic and psychological perspectives. From the business perspective, the positive sides of having large assortments include the ability for consumers to find their ideal products and/or services (Baumal & Ide 1956; Chernev 2003a), increase consumer satisfaction through variety of options (McAlister & Pessimeir 1982; Ratner, Kahn, & Kahneman 1999), reduce limitations in making selection (McAlister & Pessimeir 1982; Ratner, Kahn, & Kahneman 1999), assist in consumer preference development (Broniarczyk, 2008), and decrease uncertainty in consumer preferences (Kahn and Lehmann 1991). However, large assortments may also result in choice overload such as a reduction in preference strength (Chernev, 2003b; Iyengar & Lepper 2000) and motivation to choose (Scheibehenne, Greifeneder, & Todd, 2010; Iyengar, Huberman, & Jiang 2004), and a decrease in satisfaction of the final option (Scheibehenne et. al, 2010; Chernev 2003a; Iyengar & Lepper 2000; Schwartz, 2000). Choice overload may result in consumers not committing to a choice, or perhaps not making any choice at all (Iyengar, Huberman, & Jiang 2004; Iyengar & Lepper 2000).

From an economic perspective, the supportive notion of large assortments suggests that greater options may result in an increased chance for purchasers to find a close match to their purchasing goals (Baumol & Ide, 1956; Hotelling, 1929), and an increased efficiency in effort and time in finding alternative options when purchasing from retailers with large assortments (Betancourt & Gautschi, 1990; Messinger & Narasimhan, 1997). Additionally, with large options, a person's enhancement in shopping experience may increase (Babin, Darden, & Griffin, 1994), one may experience additional utility simply from having large options as it creates the perception of freedom of choice (Kahn, Moore, & Glazer, 1987), and hence, large options may increase overall choice satisfaction (Botti & Iyengar, 2004). However, from the economic perspective, large options may also lead to choice overload such as diminishing return, as large options have high chances of resulting in diminishing returns. In other words, with the increase in choices, the marginal benefits from each additional option may decrease (Chernev & Hamilton, 2009; Oppewal & Koelemeijer, 2005).

From the psychological perspective, the positive consequences of large assortments are explained through the notion that more choices are better for people because people's desire and ability to manage is unlimited (Iyengar & Lepper, 2000). Many psychological researchers have elaborated the linkage between large assortments/and or choices with human satisfaction, intrinsic motivation, task performance, perceived control, and overall well-being (Deci, 1975, 1981; Deci & Ryan, 1985; Glass & Singer, 1972a, 1972b; Langer & Rodin, 1976; Rotter, 1966; Schulz & Hanusa, 1978; Taylor, 1989; Taylor & Brown, 1988). The downside of choice overload, from the psychological perspective, is that many assortments may lead to a decrease in satisfaction (Polman, 2012; Scheibehenne, Greifeneder & Todd, 2010), lack of motivation to make decisions which subsequently results in choice withdrawal, regret after decision

making, and even pessimism (e.g., Iyengar & Jiang, 2004; Iyengar & Lepper, 2000; Iyengar, Wells, & Schwartz, 2006; Schwartz, 2004).

Many studies found strong evidence of choice overload (which is considered a negative consequence of large assortment), however, there are also studies which found that there were no effects of choice overload or that large assortments increase satisfaction.

So while this is a clear area of research in a B2C context, little or no research has investigated whether choice overload exists in a B2B context. We wish to investigate whether in a B2B context, organisations and specifically those responsible for the purchasing function are more inclined toward being loyal to their existing relationships and therefore do not search for further information. It is proposed that in such cases they may not experience any negative information/choice overload effect. In essence our main research question is 'does a B2B buying context eliminate the eminent, negative information or choice overload effects common in consumer research?'

In undertaking in-depth interviews within the Architectural, Engineering, and Construction industries we will firstly explore whether or not choice overload exists. Given the relational nature of B2B markets this study will also look at whether existing relationships in fact impact on reducing the negative consequences of choice overload if it does exist. Our study will make a significant contribution to the theory on choice overland by expanding it to a B2B context and helping to understand the relevance of this concept in this context.

## INTRODUCTION

The importance of large assortments for businesses and consumers has been underlined by much research (Iyengar, 2010; Levy & Weitz, 2006; Schwartz, 2003). Due to the increasing interest in the topic, there are many studies on large assortment across various research domains not only in the business field, but also in other fields such as economics and psychology (Broniarczyk, 2008; Chernev, 2012; Kahn, 1999; Kahn, Weingarten, & Townsend, 2013; Lancaster, 1990; Lehmann, 1998; Simonson, 1999). Based on the numerous studies on large assortments, it has been shown that both positive and negative, consequences of many alternatives exist.

The positives of having large assortments include the ability for consumers to find their ideal products and/or services (Baumal & Ide 1956; Chernev 2003a), increased consumer satisfaction through variety of options (McAlister & Pessimeir 1982; Ratner, Kahn, & Kahneman 1999), reduced limitations in making selection (McAlister & Pessimeir 1982; Ratner, Kahn, & Kahneman 1999), assistance in consumer preference development (Broniarczyk, 2008), and decreased uncertainty in consumer preferences (Kahn and Lehmann 1991). However, large assortments may also result in choice overload such as a reduction in preference strength (Chernev, 2003b; Iyengar & Lepper 2000) and motivation to choose (Scheibehenne, Greifeneder, & Todd, 2010; Iyengar, Huberman, & Jiang 2004), and a decrease in satisfaction of the final option (Scheibehenne et. al, 2010; Chernev 2003a; Iyengar & Lepper 2000; Schwartz, 2000). Choice overload may deter consumers from committing to a choice, or even making any choice at all (Iyengar, Huberman, & Jiang 2004; Iyengar & Lepper 2000).

From the economics perspective, the supportive notion of large assortments suggests that, greater options may result in an increase chances for one to find a close match to his or her purchasing goals (Baumol & Ide, 1956; Hotelling, 1929), and an increase in efficiency in effort and time in finding alternative options when purchasing from retailers with large assortments (Betancourt & Gautschi, 1990; Messinger & Narasimhan, 1997). Additionally,

with large options, a person's enhancement in shopping experience may increase (Babin, Darden, & Griffin, 1994), one may experience additional utility simply from having large options as it creates the perception of freedom of choice (Kahn, Moore, & Glazer, 1987), and hence, large options may increase overall choice satisfaction (Botti & Iyengar, 2004). However, large options may also lead to choice overload such as diminishing returns. In other words, with increased choices, the marginal benefits from each additional option may decrease (Chernev & Hamilton, 2009; Oppewal & Koelemeijer, 2005).

From a psychology perspective, the positive consequences of large assortments is explained through the notion that more choices are better for humans because our desire and ability to manage choice is unlimited (Iyengar & Lepper, 2000). Much of the research has elaborated the linkage between large assortments/and or choices with human satisfaction, intrinsic motivation, task performance, perceived control, and overall well-being (Deci, 1975, 1981; Deci & Ryan, 1985; Glass & Singer, 1972a, 1972b; Langer & Rodin, 1976; Rotter, 1966; Schulz & Hanusa, 1978; Taylor, 1989; Taylor & Brown, 1988). The downside of choice overload, from a psychological perspective, is that too many assortments may lead to decrease in human satisfaction (Polman, 2012; Scheibehenne, Greifeneder & Todd, 2010), lack of motivation to make decision which subsequently result in choice withdrawal, regret after decision making, and even pessimism (e.g., Iyengar & Jiang, 2004; Iyengar & Lepper, 2000; Iyengar, Wells, & Schwartz, 2006; Schwartz, 2004).

Hence, offering large assortments to consumers may not necessarily bring beneficial impacts for companies or their buyers because large choices may also result in detrimental consequences of "choice overload" (Diehl & Poynor 2007; Iyengar & Lepper 2000; Mogilner, Rudnick & Iyengar 2008). Given the debateable and unsettled state of two-pronged effects of "choice overload", Scheibehenne, et al., (2010) conducted a meta-analysis study on choice overload to further understand when the choice sets result in negative consequences. Based on the meta-analysis, many studies were found to have strong instances of choice overload, however, there were also studies which found that there were no effect of choice overload or that large assortments actually increase satisfaction.

Following the meta-analysis study on choice overload by Scheibehenne, et al., (2010), another meta-analysis study also on topics related to "choice overload" were performed in 2014 by Chernev, Böckenholt, and Goodman. This study identified four moderators of choice overload, which include choice set complexity, decision task difficulty, preference uncertainty, and decision goal. Based on the study, the researchers found that each of the four moderators have impacts on choice overload. That is, the higher complexity of choice set, and/or the more difficulty of decision task, and/or the higher uncertainty of preference, and/or the more prominent effort-minimising goal, the higher chances that choice overload was likely to occur. Additionally, the research confirmed that choice overload measures used in previous single studies—satisfaction/confidence, regret, choice deferral, and switching likelihood—can be used interchangeably and are equally powerful.

## CHOICE OVERLOAD IN A B2B CONTEXT

Despite extensive research and several meta-analysis studies relating to "choice overload", almost all of the studies concentrated on consumers, and very limited research has been done in a B2B context. There is, to the best of our knowledge, no "choice overload" related research that investigates both buyer and seller perspectives. Schaffrath and Wentzel (2015) found that choice overload exists among informally accountable B2B buyers, that is, those 'who felt a sense of being evaluated by subordinates, colleagues or peers who did not

possess any legitimate authority over them, and who they wanted to please in some way' (Schaffrath & Wentzel, 2015, p. 4). Unlike the officially accountable B2B buyers who "possess the legitimate authority to evaluate their job performance" (Doney & Armstrong 1995, p.58), these informally accountable B2B buyers experienced less satisfaction when choosing from large assortments (Schaffrath & Wentzel, 2015).

Schaffrath and Wentzel (2015) stated that; rather than an exception, large choices or assortments are the norms in the B2B environment. Although the study by Schaffrath and Wentzel (2015) proves that choice overload exists in the B2B environment (e.g. in the case of this study, choice overload exists among B2B buyers in the health industry in Germany). In a very thorough search of the literature we could find no other studies on B2B choice overload, so very little is known on whether choice overload exists in other B2B industries such as in the Architectural, Engineering, and Construction (AEC) industry, in which the nature of its decision making is more subjective than that of the health industry. Often, in practice, architecture decisions are not explicitly documented, but reside as tacit knowledge in the architect's mind (Manteuffel, Tofan, Koziolek, Goldschmidt and Avgeriou, 2014). Additionally, van Heesch, Avgeriou, and Hilliard (2012) expressed that the architectural decision approaches (e.g. decision models and decision templates) "do not frame all concerns of all stakeholders in an adequate and useful manner". Based on this large gap in the existing literature we put forward a research agenda to address this gap.

## RESEARCH AGENDA

Our research will initially explore whether or not choice overload exists in another B2B industry, namely the AEC industry. If choice overload exists, it is also important to investigate whether choice overload only occurs among B2B buyers, and whether or not B2B sellers also encounter choice overload.

So while our initial question will revolve around the existence of choice overload in this context we think it may also be fruitful to examine other aspects of choice overload. According to Schaffrath and Wentzel (2015), in addition to the assortment size, the presentation of an assortment is expected to influence the decision-making process. This is because the decision-making process may be much easier when the assortment is presented in a convenient way, i.e., using filter (e.g., Morales, Kahn, McAlister & Broniarczyk, 2005), or by adding certain cues (like colour-coding) than when no such cues are added (e.g., van Herpen & Pieters, 2007). Kim and Umanath (1999) stated that simply increasing the amount of information transferred is not always better in managing supply-chain. This is because relevant or related information may not be obvious to the decision-makers when there is information overload.

The argument that the assortments which are presented in an organised way may help decision makers to make better decisions is consistent with the point of view by Heitmann, Lehmann, and Herrmann ( 2007) who stated that when the decision makers are able to make better decision due to justifiable decisions, the satisfaction level of the decision makers may be higher. Therefore, we argue that with organised information, the decision makers are able to make better and quicker justifiable decisions, hence are likely to experience more satisfaction with organised information. However, if the decision makers are able to make good decisions even without organised information, the decision makers are likely to experience equal satisfaction when choosing from organised and unorganised information. So our initial interviews will also aim to investigate this.

The initial stage of this research will undertake a qualitative approach, which is an *inductive* research method generally adopted to investigate and understand unexplored phenomena (Carson & Coviello, 1996), as is the case with this study. For this research, an in-depth interviewing technique was chosen as it permits us to get closer to the participants so as to elicit detailed information (Denzin & Lincoln, 1994). The participants for the interviews are employees of the Architectural, Engineering, and Construction (AEC) companies who are directly involved with making decisions (buying and selling). The interviewees will be selected on the basis of their knowledge, ability, and willingness to communicate about the issues being examined (Kumar, Stern, & Anderson, 1993). Therefore, the participants are likely to come from Small Medium Enterprises (SMEs) because employees in SMEs have a greater chance of being involving with broad decision making for their companies, as compared to that of employees from large or multinational corporations (where employee's job scope is more focus, i.e., handling procurement)

Each interview will be approximately between 30 and 60 minutes in duration. The interviewing process will begin with a few broad questions to ensure a more natural conversational style and to establish rapport between the researcher and the interviewee. After the introduction, the researcher will pose more focused questions to invite the interviewees to express freely their experiences in regards to choice and information overload. The recorded interviews will be transcribed verbatim. To ensure accuracy of the content, the transcription process will be done by professional transcribers. The interview transcriptions will be analysed using structured thematic analysis (Boyatzis, 1998; Braun & Clarke, 2006) through the qualitative software Leximancer 4.0 (Smith, 2011), an analytic tool used for content analysis of textual data such as interview transcriptions (Smith, 2011). The use of Leximancer software for analysing the structured in-depth interview data is that its use reduces researcher bias (Nisbett & Wilson, 1977) because it does not require manual coding of the data to generate key concepts and themes (Cretchly, Gallois, Chenery, & Smith, 2010). The software allows researchers to map out themes, concepts, and associated relationships from the body of interview transcripts into visually compelling concept maps (Cretchly, Rooney, & Gallois, 2010). Unlike other text analytic tools, such as NVIVO (QSR International Pty Ltd., 2014), Leximancer uses an exploratory approach, allowing the user to discover a wide range of relationships of significant concepts (Crofts & Bisman, 2010).

## CONCLUSION

To date over 20 interviews have been conducted and are currently being transcribed. Analysis will be undertaken in the coming months and findings will be presented at the conference.

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