



Toward Extending the Compromise Effect to Complex Buying Contexts

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Kivetz, Netzer, and Srinivasan (2004) make an important contribution to the theory of choice models by demonstrating through a rigorous analysis of four alternative models that the compromise effect systematically affects choice in a wide range of conditions. The value and impact of their work can be enhanced by extensions that examine key underlying institutional variables that may shape the nature and scope of compromise effects. The authors provide a set of issues that further research can effectively pursue in the context of institutional buying processes and the purchase of complex solutions rather than individual products.

Toward Extending the Compromise Effect to Complex Buying Contexts

The notion of constructive preferences is now well accepted by consumer researchers (Bettman, Luce, and Payne 1998; Slovic 1995). A major focus of experimental consumer choice research has been on identifying the systematic ways that such preferences are constructed and to show their consequence for choice. The compromise effect is an important illustration of how choice is influenced by the process of construction, which relies on a local comparison process of the options provided. As Kivetz, Netzer, and Srinivasan (KNS; 2004) state, the process that underlies the compromise effect is less well understood. They make an important contribution to the research on choice models by demonstrating through rigorous analyses of four alternative models that compromise effects systematically affect choice in a wide range of conditions. Although their article motivates the four alternative models with potentially different constructive processes as being paramorphic, our commentary focuses on two important ideas that emerge from KNS's article. Specifically, we discuss the significance of this phenomenon in the industrial marketing (business-to-business [B2B]) context and implications for the underlying processes in the context of complex buying situations.

Research on the compromise effect has focused mainly on consumer choice. Much less attention has been paid to purchase decisions in the B2B customer or organizational context, in which compromise effects may be more or less prevalent. More than 25 years ago, March (1978, p. 589) stated, "rational choice involves two kinds of guesses: guesses about future consequences and guesses about future preferences." In an extension of this viewpoint, research in behavioral decision theory over the past two decades has suggested that customers are uncertain even about their current preferences. In a similar vein, B2B buyers need to consider the difficulty of

both guessing future consequences and making trade-offs among the benefits associated with different alternatives. Choices in the technology arena in particular require consideration of uncertain future states of the world (e.g., Should we bet on Linux or Windows servers, digital subscriber lines, or voice-over Internet protocol for telephony?) as well as product attributes and criteria that are new and thus require learning preferences from the set of available alternatives. For example, the purchase of grid computing capacity elicits new considerations of security, flexibility, and pricing scales for variable usage. Likewise, the outsourcing of a current business process, such as procurement, can produce different criteria for an outside vendor (e.g., demonstrated expertise, proven track record, service-level agreements) than those used for internal investment decisions. Because choices about technology require careful consideration of both uncertain future consequences and uncertain current and future preferences, research should examine whether the two types of uncertainties interact in a manner that enhances or attenuates the compromise effect.

COMPLEX BUYING: FROM PRODUCTS TO SOLUTIONS

The compromise effect has been viewed in a product-centric purchase context in which each choice is examined in isolation. Another characteristic of many organizational buying contexts is a major shift away from traditional marketing frameworks based on a product-centric approach, whereby the core product is designed around some functional benefit that is of value to customers and consumers (Dhar and Glazer 2003). To protect the core products, marketers are advised to "augment" them with services or other differentiators that create a moat of protection from competitors. As the core product is rapidly commoditized, the evidence in the marketplace is that features that had been considered augmentations (e.g., flexible financing, technology support) become more critical value differentiators. Customers are increasingly focused on the question, Can you provide me something for my problem in my industry that can tangibly demonstrate the ability to improve my return on investment in this case? Such a decision-making

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process requires the seller to take into account additional choices and to evaluate the range of presale to postsales activities that can be bundled into an offering (i.e., solutions) that generates additional revenue and higher margins. In other words, the challenge for marketers now is to determine which of the traditionally augmented features and services are price of entry (i.e., have no pricing power) and which are truly valued and competitively differentiated (i.e., have pricing power). This is particularly challenging if customers are either unable or unwilling to provide their preference structures around the purchase attributes. In other words, the translation of solutions to attribute space adds another layer of complexity. See Table 1 for how customer preference changes for products versus complex solutions. More generally, the degree to which choices of many related products are used together may affect the degree to which a compromise effect for a single choice is observed.

Implicit in the solutions perspective is the notion of a hierarchy of information technology (IT) infrastructure (hardware or software) solutions and line-of-business (LOB)-oriented business value solutions (e.g., customer relationship management, supply chain management, product life management). Higher up in this stack of solutions hierarchy, the value that customers seek changes from pure functional benefits to more business impact benefits. The shift to a solutions orientation discussed previously is also reflected in the *complexity* of joint business decision making (see Figure 1). Over the past several years, research shows that IT decisions are made jointly by IT and LOB managers (see Figure 2). This is a shift from less than 50% of the decisions being dominated by IT to more than 80% being jointly determined. The confluence of LOB and IT joint decision making around IT purchase has accelerated a shift in emphasis from single IT products to simple and complex solutions. However, what is less well understood is the exact role played by the IT and LOB managers, their relative nature and scope of influence on the decision criteria and evaluation process, and the impact of their different priorities or focus (Table 2). To summarize, behavioral decision research in general, and on the compromise effect in particular, has focused on individual processes and preferences. The way that such effects will translate to the complex buying environment in an organizational context requires an understanding of the institutional details. We next discuss the effect of incorporating joint decision making and a solutions perspective on the compromise effect in B2B contexts.

COMPLEX BUYING CONTEXT: FROM INDIVIDUAL TO GROUP DECISION MAKING

The two institutional aspects of the buying context (i.e., group decision making and solution focus) create specific challenges and opportunities for extending the predictive and process mechanism that underlies the compromise effect. The KNS (2004) models capture the compromise effects by integrating preferences across multiple attributes for a single individual. Consider the current buying context for complex technology purchases in most large organizations (we find that this pattern extends to many nontechnology complex decisions as well). Because there are several parties with potentially different functional and business objectives involved in a decision process, the treatment of preference and integration of utility partworths becomes more difficult (Table 2). The compromise effect may be amplified in such situations because (1) consensus is more difficult to reach in a group setting, especially with different

Figure 1
SOLUTIONS HIERARCHY AND CUSTOMER AMBIGUITY

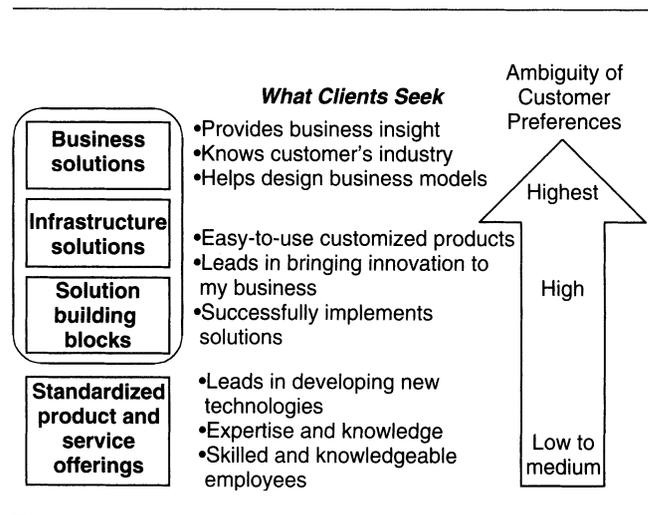


Figure 2
CHANGING FOCUS DECISION MAKING

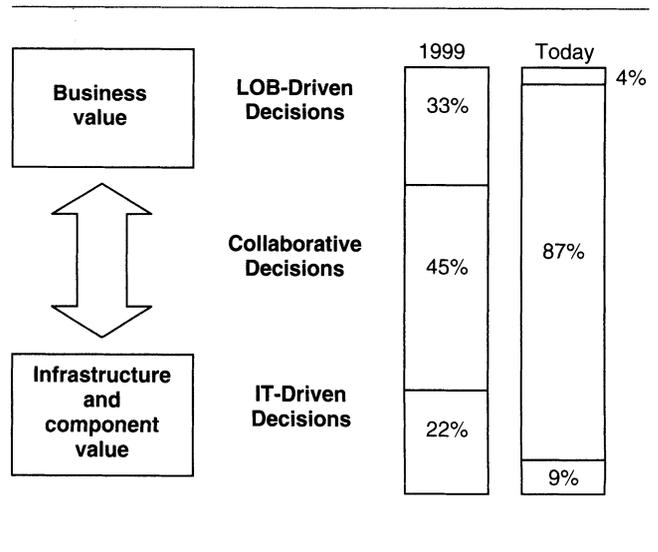


Table 1
COMPARISON OF PRODUCT- AND SOLUTION-CENTRIC MARKETING

<i>Traditional</i>	<i>Solutions</i>
Customer preferences are known and predictable.	Customer preferences are learned.
Creation and demand generation precede fulfillment.	Creation = demand fulfillment.
Focus on <i>core</i> offering: Customers pay for the core product; services are cost centers.	Focus on <i>customer value</i> : Products and services are "price of admission"; solutions are differentiated value proposition.
<i>Producer</i> determines offering.	<i>Cocreated</i> offerings.
Investment in <i>manufacturing</i> .	Investment in expertise around the <i>customer</i> .

Table 2
COMPLEXITY IN JOINT DECISION MAKING: DIFFERENT PRIORITIES

<i>Technology Area</i>	<i>Chief Information Officer</i>	<i>Chief Financial Officer</i>	<i>Chief Executive Officer</i>
<i>Which technology areas do you get involved in or care about?(1 = "most involved")</i>			
E-business	1	4	3
Security	2	7	4
Data management and storage	3	6	9
Consultants or strategy advisers	4	2	5
Customer-facing applications	5	3	1
Network and systems infrastructure	6	8	7
Service providers and outsourcing	7	5	2
Back-office applications	8	1	6
Network and systems management	9	9	8
Mobile and wireless	10	10	10
Digital convergence	11	11	11

Source: Hayes 2002.

criteria, and (2) the relationships between self and other criteria increase uncertainty (e.g., "I know what is important to me for the final outcome, but I am less certain about others' preferences or decisions.").

We further note an evolution from a predominant influence of the IT decision makers to more parties, particularly from the operational and business functions, involved in the technology purchase decision to ensure the required business benefit. As we discussed previously, this has led to a significant shift in focus from a product approach that emphasizes technical implementation to one that addresses core business problems or solutions offerings. From a product-oriented view, a traditional decision to buy a server might include considerations of capacity, speed, and cost that might be easier to integrate across multiple decision makers. By definition, solutions are about relevance to a customer's distinctive business issues and competitive challenges. The predictive models that KNS (2004) propose capture the compromise effect by treating preferences as endogenous to the local choice set but as exogenous to other aspects of the decision process and reasonably stable over the decision cycle. Although this is a reasonable assumption in many buying situations, our experience suggests that customer solution preferences are steeped in uncertainty and ambiguity rather than pure product functionality and benefits. This is because customer and partner needs and expectations are learned and cocreated over the process of the decision and sales cycle, thereby reflecting other aspects of endogenous change in preferences (Table 1). This points to a need to incorporate learning into the current treatment of customer preferences and utilities. Next, we further elaborate on the change in the underlying process of compromise effects by adding the complexity of the number of parties involved in the decision process.

In comparison with previous empirical studies that mainly examined three option-choice sets, KNS (2004) convincingly demonstrate the compromise effect in larger and more complex Pareto-optimal choice sets. The complexity of measuring and integrating utility partworths across multiple decision makers, which we discussed previously, is compounded by the difference in participation and the solution space of the different actors involved in the decision process. For example, an IT manager focuses on a different subset of the solutions structure than does a line manager. Table 2 highlights the interplay among the influencers, deciders, and users who possess different preferences and utility structures, which may cause the compromise effect to vary across

causal factors. We speculate that IT decision makers are more likely to follow a traditional decision process that favors extreme options. Their preferences and expectations are more easily defined in a product-centric ("more-is-better") world. We have noticed a tendency in such cases to choose the highest or the lowest on the specific attributes. In contrast, LOB decision makers are more likely to reflect compromise effects in their decision process. Consider the issue of open standards in the technology context. From an IT perspective, open standards deals with the primary issue of interoperability of technologies and the software associated with them. In contrast, when LOB managers evaluate open standards, their preferences and expectations reflect their desire to avoid technology lock-in and obsolescence risk. In such a context, decision-making processes should have compromise effects embedded in them. Although IT decision makers are more likely to consider functionality and product performance issues, which have clear benchmarked expectations, business performance expectations are much more unpredictable and ambiguous.

FUTURE RESEARCH DIRECTIONS

Although KNS (2004) focus on the compromise effect, a related issue that needs further exploration both empirically and theoretically is the circumstances under which a polarization effect is obtained in choice. Specifically, Simonson and Tversky (1992) state that the compromise effect is expected if disadvantages loom larger than advantages on two attributes, whereas polarization occurs when only one of the inequalities holds. Simonson and Tversky note that they often encounter this regularity in studies in which the options vary in quality and price. The key difference between polarization and compromise for choice shares is that with compromise, the addition of an extreme option will increase the share of an existing option compared with that of the other extreme, whereas polarization makes the same prediction for one dimension but not for the other. Many product innovations in the business world entail an attack from below by a new option that offers lower quality and price (Christensen 1997). In the technology world, flash memory, embedded processors, Linux, and power line networks are all examples of this attack-from-below phenomenon. To the extent that these options are often initially characterized by low price and low quality, they are less likely to draw share from existing options, but they may be able to alter significantly the trade-offs among the existing alterna-

tives over time. Conversely, technology products are often characterized by continuous improvements. In the emerging technology of on-demand services, the emphasis is on “faster” and “better.” For computers, storage, and micro-processors, the innovation is on successive generations of products in the same technology. In such markets, the compromise effect is likely to be strong, as the low-price, low-quality item rapidly loses share to the other two options.

Another important characteristic of many complex buying decisions is the length of time between identification of a new need and its implementation. For example, firms’ decisions about normal infrastructure hardware, software, and services can take two to five months. Furthermore, the sales cycles for complex solutions have increased from less than one year to approximately two years. The interplay between the compromise effect and the decision complexity implies additional areas for further research. Previous research has examined the effect of choice complexity on decision deferral (Dhar 1997). A reason to delay or stay with the status quo option might be the difficulty of identifying the best option from an externally available set. However, when the decision cannot be delayed (or the cost of delay is high), such decision makers might favor a compromise option (Dhar and Simonson 2003). Many decisions in the IT arena require a choice between an incumbent vendor and new vendors. There is some internal data at IBM to suggest that the preference for the status quo or the incumbent supplier varies with the number of competing vendors in notable ways that should be tested more systematically. For example, when there are several competing vendors, firms that select compromise are likely to take a longer time and to have a longer sales cycle. In contrast, when there is a single competing vendor, firms that stay with the status quo vendor have a longer sales cycle. In addition, as KNS (2004) imply, the multiattribute ratings for IBM appear to be different when the buyer considers an odd (e.g., three) rather than an even (e.g., two) number of brands. We plan to explore this issue more systematically in the future.

A controversy surrounding these effects often pertains to their classification as biases. For individual decision making, it is worth emphasizing that the preference construction viewpoint is distinct from economists’ general notion of bounded rationality and from specific heuristics such as satisficing (Simon 1955). A major reason choices might deviate from perfect rationality can be understood in terms of the consequence of resource constraints placed on an individual or an organization. In process terms, such an algorithm for making decisions is likely to be even more effortful than an unconstrained one and consequently is not a desirable one to explain the underlying consumer or managerial decision process (Gigerenzer 2000). In the organizational context, Tetlock (2000) finds that the cognitive styles of individual managers and the cultural norms in an organization or subunit in an organization can add layers to this complexity. Consider a complex buying decision with potential for significant impact on a business in terms of outcomes. Managers who have a conservative cognitive style (e.g., finance, legal) may approach the decision-making process with preference structures that are more rigid than those of other managers (e.g., business unit managers) who may have a greater tolerance for risk. If some of the entities in the decision use noncompensatory decision models and others use more of a compensatory approach, the potential for compro-

mise effects may be a function of the power structures in the buying context and the justifiability of certain alternatives.

A point related to the previous one is, When might the compromise effect be consistent with a rational individual or organization? Evidence of a compromise effect in real-world choices could be consistent with other explanations, such as the account proposed by Wernerfelt (1995), who analytically shows that the compromise effect is consistent with rational consumers’ making inferences about utilities from market offerings. In many technology choices, decision makers do not know their absolute preference; they know them only in relation to the preferences of others. The application of KNS’s (2004) contextual concavity model assumption that utility associated with extreme attributes is lower may need to consider heterogeneity in relative preferences. Similarly, many organization decisions involve interactive negotiations in which salespeople generate appropriate comparisons to influence the purchase decision (Hamilton 2003). However, because the buyer is aware of this potential influence, he or she might tend to guard against it. The compromise effect might be difficult to guard against, because the general intuition is that the seller attempts to sell something more expensive rather than something that is intermediate in price. In such conditions, compromise choices are often not superior but rather are just that: a compromise, or a way to avoid making difficult trade-offs.

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