

**Executives' Tools for Making Tough Decisions Competently:
Assessing the Value of Product Portfolio Planning Methods, Devil's Advocacy,
Group Discussion, Weighting Priorities, and Evidenced-Based Information**

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Abstract

This study tests the efficacy of using tools proposed to increase effective decision-making by executives. Rather than serving to increase competency, management literature relevant to the study includes claims that some other proposals to use tools designed to increase the quality of decisions – such as product portfolio planning – actually serve to increase incompetency. However, the designs in these studies have telling framing and structural limitations. The study here proposes improvements in testing the core proposition that specific aids are effective in increasing the quality of decisions. This study includes alternative executive problem-solving, scenario-experimental, treatments and problem-solving by 150 individuals processing information in groups of four persons or as individuals. The findings provide evidence that executives' use of certain decision tools within specific contexts helps to increase decision quality. The use of product portfolio planning in all contexts in the present study contributes to high decision incompetence.

Keywords: competency; incompetency; decision; executive; placebo; product portfolio planning; recipe

Introduction: Tools for Increasing In/Competency in Decision-Making

“Strategy-making” is the combination of sensemaking in a given context, implicit and explicit selection of process tools (including algorithms and symmetric tests of reality) and using tools to conclude tentative and final decisions about taking a course of action or just waiting. The study here proposes and tests the use of configurations of decision tools – aids proposed but rarely tested formally in the management literature for increasing competency and mindfulness in evaluating and selecting among alternative actions or action versus non-action by executives. The study examines whether or not recipes of decision process tools have synergistic influences in making sound strategy making; are specific recipes of decision tools more useful than each tool in achieving sound judgments. The findings support the conclusion that use of specific configurations of decision aids does help increase the quality choices made in specific executive decision-making contexts, as well as supporting prior work (e.g., Armstrong and Brodie, 1994; Armstrong and Collopy, 1996; Weick, 1996; Woodside, 2013) that the reliance on certain tools in some contexts increase decision incompetency.

Relevant to these issues, management and marketing textbooks (e.g., Fleisher & Bensouss, 2003; Thompson, Strickland, Gamble & Gao, 2008) frequently describe and suggest the advocacy of the use of specific decision tools without reporting on any formal testing of the efficacy of doing so. For instance, some textbooks propose that focusing the firm on growing product/brand “stars” and eliminating the firm’s “dogs,” where stars are products or services in high-growth markets in which the firm holds a large market share, and dogs are the opposite; the discussions about stars and dogs includes no evidence of the effectiveness of focusing efforts on one or the other. Stars and dogs come from the Boston Consulting Group’s (BCGs) growth-share matrix. Other

scholars (Anterasian, Graham, & Money, 1996; Armstrong & Brodie, 1994; Armstrong & Collopy, 1996; Armstrong & Green, 2007; Capon, Farley, & Hulbert, 1987; Morrison & Wensley, 1991; Woodside, 2013) advocate adopting the perspective that the use of the BCG matrix often serves to increase incompetency in strategy making, and that avoiding its use frequently serves to increase competency in strategy-making. Anterasian et al. (1996, p. 74) offer the following extreme suggestion for remedying purported BCG incompetency training, "...we suggest you find the portfolio models section and rip those pages out [of your textbooks and throw them away]."

Does the use of propositions from this BCG matrix versus other decision tools actually help or hinder sound strategy-making? The study here is unique in examining the efficacies of using recipes (i.e., configurations) of decisions tools on achieving competent solutions and influencing decision-makers' confidence in the solution selected. The ingredients in the recipes tested include the BCG matrix (Abell and Hammond, 1979), use of the devil's advocate (DeBono, 1976), group-interactive versus individual thinking (Schulz-Hardt, Jochims, & Frey, 2002), "simulated interaction" (Green, 2005), the "weighted-priority matrix" (Pruitt and Grunden, 2003), and knowledge-based decision-aids (Elm & Taylor, 2010). Such testing includes answering the question of whether or not the BCG matrix and the other four tools are useful in some contexts involving the use of multiple tools.

Here is a second tool and controversy about its efficacy, with some guidance on how to eliminate the controversy. Conventional wisdom holds that groups make better decisions than individuals because of their ability to accumulate information and knowledge (Sargis & Larson Jr, 2002); deal with more information; point out other group members' errors (Schulz-Hardt et al., 2000); encourage divergent and innovative

thinking (Janis & Mann, 1977; Rijnbout & McKimmie, 2012; Sargis & Larson Jr, 2002; Schulz-Hardt et al., 2000); and reduce limitations such as bias and personal preferences (Hilmer & Dennis, 2000; Shaw, 1981; Stasser & Titus, 1985) through cognitive conflict in group decision-making. Other scholars, considering real-world settings, point out that pooling of individual perceptions and knowledge only explains improved group decision competency in part (Michaelsen et al., 1992). Other factors that may explain improved decision quality, uncovered by empirical studies, are inter-personal feedback and diagnostic review (Chalos & Pickard, 1985; Einhorn et al., 1977; Kerr et al., 1996) and improved meta-knowledge due to other people's critiques (Heath & Gonzalez, 1995).

In contrast to conventional wisdom, a number of scholars in the area of social cognition and social psychology uncover evidence that groups do not always outperform individuals. A study by Chalos and Pickard (1985) reveals significant differences in decision performance results between group decisions and individuals. Explanatory factors their study highlights are "quality of information selection, cue weighting and judgment consistency" (Chalos & Pickard, 1985, p. 635). Some literature on group decision-making suggests that individual and collective decisions not only differ, but can be more or less effective based on a number of cognitive, social and contextual influences (Hall & Williams, 1970). Heath & Gonzalez (1995) report that, although group interaction is likely to improve decision confidence, decision quality does not necessarily improve via these interactions. Reasons put forward include (1) "groupthink," a dysfunctional pattern of thought and interaction during group decision-making, which is characterised by an overestimation of the group, closed-mindedness, and pressures towards uniformity (Janis, 1982; Schulz-Hardt et al., 2000); (2) biased information search (Kerr et al., 1996), where "group homogeneity" for a preferred alternative results

in a predominantly biased search for information supporting the group view; and (3) underestimation of risk (Schulz-Hardt et al., 2000).

Resolving these two controversies – effectiveness of P³M use versus non-use and group versus individual problem-solving – and others is possible by recognizing that effective applications of tools involves using recipes of one or more tools in specific contexts and the basic tenets of complexity theory are applicable for research on effective and ineffective decision-making applications of these tools. Complexity theory applied to the use of decision tools includes the tenet that the same tool may be functional or dysfunctional depending on the contextual recipe (i.e., the milieu of people, place, time, felt importance of the issue, prior experience of the executives, simultaneous use of multiple decision tools, the knowledge available, and additional contextual ingredients) in which the tool is applied. A second tenet is that while not all relevant ingredients occurring in a specific decision context can be explicated, this deficiency does not prevent identifying recipes that are sufficient for predicting a decision that is highly competent. Thus, certain recipes (combinations of using certain decision tools in specific contexts) work well consistently (i.e., are sufficient) without specifying/describing all details occurring in the context; the use versus non-use of a decision tool alone is an insufficient indicator (i.e., is insufficient and not necessary) of a highly in/competent decision even if the main effect of the use of a decision tool on competency is significant statistically.

Following this introduction, section two describes a set of testable tenets relate to decision-making (DM) competence and incompetence. Section three describes the relevant literature supporting the selection of decision tools for examining the efficacy of the tenets in the current study. Section four describes the use of an in-basket experiment

to test the tenets. Section five present the findings of the experiment. Section six concludes with a general discussion, limitations, and implications for marketing strategy practice.

Testable tenets on the use of decision tools to increase competency

The study here embraces a core tenet of complexity theory, “Relationships between variables can be non-linear with abrupt switches occurring, so the same ‘cause’ can, in specific circumstances, produce different effects” (Urry, 2005, p. 4). Complexity theory supports the adoption of the configuration (i.e., recipe) perspective on the efficacy of individual decision tools. Thus, complexity theory and configurational analysis in combination includes the following general tenets related to improving decision-making competence. First, high competence in an outcome is not a consistent finding from the presence or absence of a single decision aid; the use of any single decision aid is neither necessary nor sufficient for a high competence outcome. The use of a particular DM tool within certain recipes has an asymmetric and not a symmetric association with high DM competence. Second, the same decision tool may have different - even opposing - effects depending on the presence or absence of additional ingredients in the decision context; possibly the use of P³M in some decision-aid recipes helps to increase decision competence and helps to increase decision incompetence in other recipes. Third, causal asymmetry occurs. The recipes associating with increases in incompetency are unique and not the mirror opposites of the recipes associating with increases in competent DM. Fourth, equifinality occurs, so the use of a few alternative recipes, not just one, associates with highly competent DM. Similarly, the use of a few alternative recipes, not just one, associates with highly incompetent DM. The unique contributions of the present study are made through examining and supporting these four tenets.

Building from the general tenets, Table I summarizes a formal set of propositions that this study tests. The propositions in Table I appear in three subcategories: The impacts of specific training tools in context on decision quality; the impacts of decision-makers' characteristics (e.g., prior managerial experience, gender, educational level, and age), and the combination of tools and conditions.

TABLE I ABOUT HERE

Rather than assuming normative statements are correct (e.g., BCG growth-share matrix and its advocacy of nurturing stars and dropping dogs; or complex prioritizing and probability assessment are more likely to result in effective or accurate decisions than are “fast and frugal” heuristics), the study makes use of in-baskets of in-context protocols to formally test the value of a series of well-known normative statements. This study applies Simon's (1976, 1990) wisdom that decisions (and research on decision-making) should include the study of explicit and implicit cognitive processes in specific contexts. The study empirically tests the impact of training in contextual intelligence on management decision competency and decision incompetency. The results of the study call for vigilance by trainers and development officers, to nurture the opposable minds of management protégés and to actively pursue an understanding of the impact of context in imparting decision competence and decision confidence in future managers. The study shows, supported by substantial qualitative and quantitative evidence, how to do such testing formally – testing that nurtures competency training.

The study contributes to the body of knowledge regarding organizational knowledge, organizational learning, management development and experiential learning. The study expands on the work of Janis (1982) on “groupthink;” Armstrong (2003),

Dewey's (1963), Rogers (1983, 1985), and Kolb's (1984, 2008) research on forecasts and models using simulated interaction and role-play; Schank's work (1994, 1995, 1999) on improving decision competence through goal-directed scenarios and case-based learning; and Schwenk's (1984) research on improving decision quality with experiential learning via deliberately-introduced, decision dissent (devil's advocate). The findings extend the theories relating to management competency development and education in decision- and sense-making, and endorse the value of combining teaching methodologies to achieve high quality decisions. The study outcomes include advances in guidelines regarding new or improved tools to prevent graduate and practicing managers from thinking and making incompetent choices or decisions, and reductions in their inability to drop their previously acquired knowledge should the circumstances favour doing so. The detailed in-baskets cases and checklists may assist educators to design, implement and improve experiential learning tools such as simulated interactions and written simulations in the form of goal-based scenarios for application in tertiary education.

The study delivers a checklist of configurations of conditions that will assist andragogs by providing several well-tested, fully structured training aids. A further contribution, of particular use to management practitioners, coaches, and human resource development specialists, are the four thoroughly tested and expert-approved simulations and assessment tools. (The full set comprises 54 pages of decision scenarios, including 26 carefully crafted deliberate competency and incompetency decision aids.) The tools will be useful in assessing decision (in)competence for use in recruitment and assessment centres, for both formal and informal development interventions, as well as senior management selection.

Selection of four decision tools for treatment conditions

This section substantiates the use of four carefully selected decision tools in the experiment to investigate the andragogical merit of a combination of treatments, likely to impact on decision competence and decision confidence of executive learners.

This is a highly complex and meticulously controlled laboratory study, which investigates 16 configurations of teaching methods. The study involves 150 MBA students participating for two hours each, a total of 300 hours, over four geographical locations including half the tertiary institutions in New Zealand. A total of 600 decisions were completed and captured. Each student was considered a case – in line with QCA methods – and rich case details are captured to ensure fine calibration of the case data. The method applied delivered a comprehensive checklist of the combination of teaching methods that is most likely to result in high decision-performance for each of the in-basket scenarios. Although QCA is a well-tested and highly regarded method in social and political sciences, to the best of our knowledge this is the first time a study of this scope has used the methodology in either andragogy or management sciences.

Frugal heuristics, Drop your Tools & Evidence-based Information (kbi)

Simon (1976) states that all decisions have three key limitations in common: They are grounded in incomplete information (bounded rationality); human decision-makers have limited alternative generation abilities; and human decision-makers have limited insight into the future consequences of the alternatives that are under consideration. According to Simon (1990), the internal cognitive capacities and the external environment that surrounds our rationality are closely linked. “Human rational behavior ... is shaped by a scissors whose two blades are the structure of the task environments and the computational capabilities of the actor” (Simon, 1990, p. 7). Further, educationalists expect, as part of the outcome when developing effective decision-makers, the development of students’ ecological rationality (Todd & Gigerenzer,

2000, 2003, 2007). This entails students with the ability to make “good decisions with mental mechanisms whose internal structure can exploit the external information structures available in the environment” (Todd & Gigerenzer, 2003, p. 144). To aid decision-making in complex contexts, Gigerenzer and Murray (1987) propose “fast and frugal” heuristics to the complicated, time-consuming, and often defective probabilistic view of human decision-making. Heuristics that are matched to particular environments allow agents to be ecologically rational, making adaptive decisions that combine accuracy with speed and frugality” (Todd & Gigerenzer, 2003, p. 148).

Even more surprisingly, some studies report on the effectiveness of simple decision algorithms (heuristics) that rely on a total lack of knowledge to make appropriate decisions (Todd & Gigerenzer, 2003). Gigerenzer (2008) explores the misconception that more information and more extensive computation are always better and paradoxically states that “good decisions in an uncertain world require ignoring part of the available information” (p. 22). Having insight into which data are relevant and which should be ignored is part of the decision-making problem, and the more complex the issue and the context, the more enabling forgetting and ignoring information may be (Gigerenzer & Brighton, 2009b; Marewski et al., 2010; Schooler & Hertwig, 2005). Klein, Moon and Hoffman (2006) also refute the myth that more information makes for better decisions. Their study provides empirical support for the hypothesis that more information does not necessarily lead to better decisions; it does affect confidence however. But an increase in people’s confidence is not balanced by increased correctness or improved performance. People tend to be overconfident, despite their empirically evident incompetence (Omodei, 2005; O’Scamp, 1965).

Very often organizational crises cause managers to stumble, and these crises often threaten their personal mental and cognitive stability as well as the stability – or possibly

the survival – of the business. People are reluctant to adapt and the more intense the threat or risk, the less willing decision-makers are to drop what they know. “Dropping one’s tools is a proxy for unlearning, for adapting, for flexibility” (Weick, 1996, p. 301). Weick (1988, p.308) proposes, “it is our contention that actions devoted to sense making play a central role in the genesis of crises and therefore need to be understood if we are to manage and prevent crises.” In the group competency training instruction pack, we advise students to “drop their tools” and treatments include decision aids covering “satisficing” literature and a brief overview of seminal literature on search heuristics and frugal decision trees (Gigerenzer and Todd, 1999). In contrast, the incompetency training aids (not shown or made known to participants) cover concepts such as weighted priority matrices.

Group Decisions

Conventional wisdom holds that groups make better decisions than individuals because of their ability to accumulate information and build a large reservoir of relevant knowledge (Baron & Kerr, 2003; Forsyth, 2006). Scholars attribute improved outcomes to decision-makers’ ability to deal with more information and the increased opportunities to deliberate correct and incorrect reasoning and factual statements, as well as the ability to point out other group members’ errors and reduce other limitations such as bias and personal preferences (Hilmer & Dennis, 2000; Schulz-Hardt, Frey, Luthgens, & Moscovici, 2000; Shaw, 1981; Stasser & Titus, 1985; Zimbardo, Butler, & Wolfe, 2003). The literature on group decision-making suggests that individual and collective decisions not only differ, but can also be more or less effective based on a number of cognitive, social, and contextual influences. An empirical study by Chalos and Pickard (1985) revealed significant differences in decision performance results between committee or group, and individual decisions. Heath and Gonzalez (1995) report that, although group

interaction is likely to improve decision confidence, it does not necessarily improve decision quality. Reasons put forward include: (1) “groupthink,” a dysfunctional pattern of thought and interaction during group decision-making, which is characterised by an overestimation of the group, closed-mindedness, and pressures towards uniformity (Janis, 1982; Schulz-Hardt et al., 2000); (2) biased information search (Kerr et al., 1996), where “group homogeneity” for a preferred alternative results in a predominantly biased search for information supporting the group view; and (3) underestimation of risk (Schulz-Hardt et al., 2000).

In order to test the efficacy of group interactive decision processes, participants were randomly allocated to small groups of four participants. In this two-hour laboratory experiment, approximately half the participants make decisions as individuals without any interaction, whilst the other half spend a total of one hour in group deliberation, making their decisions on their own after 20-minute discussions for each of the four scenarios in the four in-baskets. Participants self-report on their levels of confidence in their decisions and their willingness or likelihood to change their decisions at a later point in time.

Dissent and Devil's Advocate

Janis (1982) highlights the limiting and debilitating effect of groupthink on the quality of decisions. The suppressed views may be the result of both self- or group censorship and a need to conform to the pervasive group view. This very factor – suppressed dissent – is also blamed for the Tenerife airport disaster during which 583 people died (Haerkens, Jenkins, & Van der Hoeven, 2012; Landfield & Cheung, 2004; Woodside, 2012b). Rijnbout and McKimmie (2012) expand on the disastrous consequences of stifling dissent and offer the Vietnam War and the Challenger shuttle

disaster as evidentiary examples. The effectiveness of using devil's advocates (DAs) and role-playing to counter incompetency training and groupthink receives substantial support in the literature (Armstrong, 1977; Cosier, 1978; Green, 2002; Schweiger, Sandberg, & Ragan, 1986; Schwenk, 1990). Therefore, in the pursuit of effective training methods to reduce the effect of inherent inability or the effect of decision incompetency training, this study further investigates the impact of DA on group interactive decisions. Schwenk (1984, p.158) defines the role of the DA as "a procedure which involves the appointment of one or more persons to raise objections to favored alternatives, challenge assumptions underlying them, and possibly point out alternatives." However, not all scholars agree that dissent – especially contrived dissent – improves decision outcomes (Greitemeyer, Schulz-Hardt, Brodbeck, & Frey, 2006). The deviance and conflict accompanying dissent may distract individual members from the task, thus affecting group morale and cooperation (De Dreu, 2006; Nemeth et al., 2001). Rijnbout and McKimmie (2012, p. 2) warn against the potential impact of deviance on group morale and group member confidence in leadership, but acknowledge that "the way that deviants affect the decision-making process is poorly understood."

Goal-based Scenarios

Schank et al. (1999) argue that traditional methods of instruction have several shortcomings, including the teaching of content without linking the content to the intrinsic motivators and prior knowledge of the learner. The author proposes case-based reasoning (CBR) as a method to "learn content and skills in order to achieve goals that [students] find interesting and important and that relate to the subject matter" (Schank et al., 1999, p. 166). Schank and colleagues propose CBR, a theory of memory and learning based on a teaching structure of goal-based scenarios (GBS) and argue that students learn best through actual decisions and behaviors and seeing examples from real

life, rather than passive listening or being preached at. “We want students to know the exceptional cases from which they can learn and make judgments on their own about new situations” (Schank, 1995, p. 8). The proposed teaching method provides meaningful context for new learning material by demonstrating how it would be used in real life. This study tests the efficacy of GBS by providing clear goals, case information and defines clear objectives for each of the unique roles participants are asked to enact. Contrasted, the competency training aid (GBS) is replaced with a placebo; here a general instruction sheet to participants to “act as a group of consultants.”

Analysis of the data from the study includes fuzzy set qualitative comparative analysis (fsQCA) procedures to examine the effect of goal-based scenarios (devil’s advocate dissent, group versus individual decision-making using different processing tools, accessing implicit knowledge, and “drop your tools” training) on decision competency and incompetency outcomes, as well as decision confidence.

The Andragogical Merits of In-basket Assessment Simulations

Some authors laude the benefits of in-baskets and hypothetical scenarios to develop learner competencies (Darley 1999; Feinstein & Cannon, 2002; Tse, 1988). However, few empirical studies substantiate the use of in-basket simulations as an assessment and teaching tool (Kesselman, et al. 1982). This study extends the work of Schank (1994, 1995) on the value case-based scenarios and the work of Elm and Taylor (2010) and Kolb (1984) on experiential learning and whole-person engagement. An empirical study using four hypothetical scenarios in an in-basket format, cited the main benefit of this method as “its realism and its rich context, [which] in comparison with conventional tools for studying executives’ decisions ... provides more relevant decision variables to the respondents” (Tse et al., 1988). Darley (1999, p. 271) reports two

distinct advantages of using in-basket simulations that are relevant to our study; time compression and “to the degree to which a participant feels genuinely evaluated as an organizational member, it both creates involvement on the part of the participant and casts the respondent into an organizational milieu.” A number of studies report on the reliability and validity of situational methods which include in-basket methods (Bray & Grant, 1966; Kesselman et al., 1982; Wollowick & McNamara, 1969). Hence, in-basket assessments are well suited to this study.

To test the andragogical merits and decision competency tenets, the present study includes laboratory experiments involving a total of 150 participants. Each receives four in-basket problems in the form of case-based scenarios to investigate, analyze, and complete a series of decisions that Bloom’s Taxonomy of Learning (1956) describes as ranging from low complexity to high complexity. In surveying the effectiveness (or not) of the predetermined selection of andragogical methods discussed in section 2, the studies in this experiment expose participants to a series of a configuration conditions likely to affect decision-makers’ competency, decision competence and decision confidence. To implement the andragogies, configurations of conditions are designed in the form of in-basket simulations, supported by printed decision aids that have been pre-tested in several studies, or as a pre-test to this study. A panel of experts in marketing, selected from the Marketing Departments at two New Zealand universities as well as six industry experts from the New Zealand Institute of Management, assessed the face validity and verisimilitude of the cases and the decision aids. Imperative to the success of this study, these academic and practitioner experts also independently assessed the most effective/best decision for each of the scenarios.

The twelve configurations of treatments in the four in-baskets we test are set out in Table II. The table indicates the presence and the absence of the treatment and how the andragogical methods were executed in each of the four unique cases in each of the in-baskets. (Participants were never told which treatment they participated in.)

TABLE II ABOUT HERE

3. APPROPRIATENESS AND APPLICATION OF THE METHODS

Asymmetric Testing. The study includes the use of asymmetric testing methods rather than symmetric tests such as multiple regression analysis and ANOVA. Testing of alternative algorithms match well with theories and realities in most strategy-making contexts (Fiss 2007). Testing of alternative algorithms in this way is a relatively recent development in the management literature (see Fiss 2007, 2011). McClelland (1998) stresses that studies on success and competency show that relationships are not well described by correlation coefficients, while Gladwell (2001) describes observations by social scientists as “tipping points,” and the need to study combinations of factors that may lead to the same outcome – in this case decision competence and decision confidence – in order to arrive at meaningful interpretation of the causal patterns displayed in the cases under examination.

The study includes applying qualitative comparative analysis (QCA), which combines elements of quantitative and qualitative methods. QCA offers a robust approach and middle-ground approach between quantitative and qualitative methods. A variant of QCA, namely fuzzy-set QCA, lends itself well to the study of asymmetrical relationships between the low scores in antecedent conditions (here the teaching methodologies) and the associated low or high scores in the outcome condition(s) (here

decision (in)competence and decision confidence/doubt). The study investigates several combinations of causal factors in developing these competencies and expected, and delivered several useful models in predicting high outcomes. fsQCA differs from traditional qualitative research in viewing the causal relationships as complex, asymmetric and equifinal (multiple routes to the same outcomes) (Rihoux, 2006a). fsQCA supports the researcher in the attempt to arrive at a meaningful interpretation of the (causal) patterns displayed by the cases under examination. To execute the fsQCA method, a laboratory experiment involving 150 masters of business administration (MBA) students and practicing managers were involved in 2-hour simulations using four in-basket goal-based scenarios.

TABLE III ABOUT HERE

The research design appears in Table III. Each of 150 cases is turned into algebraic variables and expressions using Boolean algebra, which ensures the retention of the integrity of each case. The study considers a total of 2046 configurations of treatment and antecedent conditions. The use of Boolean minimisation algebra unveils the regularity in the data and a valuable checklist of useful models (parsimonious formulae) for predicting decision (in)competence.

In-basket simulations are widely used as teaching and assessment tools for a large variety of reality-based business competencies and managerial decision-making (Castleberry, 1990; Craik et al., 2002; Kesselman, Lopez, & Lopez, 1982; Pearson et al., 2006; Tse et al.1988; Wagner, 2004). The key benefits of using in-basket simulations include measuring insights rather than information recalls; using high order thinking skills; and high realism and richness in context versus conventional tools to make

decisions. As a research method, in-basket simulations allow for time compression (Darley, 1999), verisimilitude (Schippmann et al., 1990), face, criterion-related and content validity (Lopez, 1966; Meyer, 1970; Schippmann et al., 1987, Spangenberg & Theron, 2003).

Experientialists (Feldman & Lankau, 2005; Gosen & Washbush, 2004) ask for high quality exercises, and this study contributes four laboratory and field-tested in-basket simulations. The four, meticulously constructed, thoroughly pre-tested in-basket scenarios with expert-defined case-detail cover four levels of Bloom's (1956) taxonomy of learning (where objectives in learning range in cognitive levels from the lowest level of knowledge, to comprehension, to the higher levels of application, analysis, synthesis and finally the highest level, evaluation). The case scenarios examine four decisions in four separate management realms and form, to the best of the researchers' knowledge, the first experiment on a large scale with tools for thinking well and for improving andragogy in a wide range of management decisions. The decisions range over complex pricing decisions, service recovery issues, event management, weighing up stakeholders' demands versus internal executives' goals, and market share versus a profit orientation.

Very few empirical studies substantiate the use of in-basket simulations as an assessment and teaching tool (Kesselman, et al. 1982). This study extends the work of Schank (1994, 1995) on the value case-based scenarios and the work of Elm and Taylor (2010), Dewey (1963) and Kolb (1984) on experiential learning and whole-person engagement. In this study, the learning goals for the students are: To appraise the available information and determine which information to use and which to omit in making an effective business decision (Bloom's (1956) highest order learning objective = evaluation); to conclude by advising the client of the preferred course of action within the

complex business environment. (Bloom's higher order learning objectives = analysis and synthesis); to analyze available information in order to assess the impact of the context on the business decision (Bloom's higher order learning objective); to justify or explain why the suggested course of action is the preferred or most effective option (Bloom's highest order learning objective).

The study is inter-disciplinary in its reliance on literature foundations in marketing (e.g. Kotler), cognitive science (e.g., Gigerenzer and Simon 1976, 1990) strategic management (Mintzberg 1985, 2001, 2004), organization science (e.g., Weick 1995, 1996), and sociology (e.g., Ragin). The study is unique in joining together these literature streams, offering new theory on how the firm can become a highly reliable organization (Weick, 1996), and in testing new theory on configurations of decisions tools in avoid incompetency and achieve competency.

Data and Findings

One hundred and fifty group and individual decision-making units spent a total of 300 hours considering four marketing issues and dilemmas concerning (1) complex pricing issues – a decision to optimize market share versus profit maximization; (2) a choice between three relevant and appropriate marketing tactics, namely using social marketing (Facebook and other online channels) or television advertising and sponsorship; (3) events marketing and performance reward issues in the form of venue choice to hold a sales conference and product launch function and (4) a service recovery issues when a key client is offended by a key staff member. The choices or decision dilemmas were presented in four in-basket case-based scenarios with information sheets, decision aids and printed training matter. Each participating unit was given four

scenarios and either worked on solving the dilemmas as an individual or as a member of a group of four decision-makers.

TABLES IV a), b), and c) ABOUT HERE

This research investigates eleven propositions (see Table IV) to study the impact of the presence or absence of four andragogical treatment conditions associated with high decision (in)competence and/or decision confidence/doubt. The treatment antecedents include (1) group interactive decision-making interactions, (2) goal-based simulations, (3) deliberated devil's advocate dissent and (4) competency/incompetency written teaching aids. The calibration of all antecedent conditions and the outcomes (occurrence of the two phenomena of decision competence OR decision confidence) are defined and calibrated as fuzzy sets, with the resulting membership scores reflecting the level of membership to the sets, using theoretical and substantive knowledge of the cases (Ragin, 2008). The fine and substantiated calibration of the eight treatment antecedents, the sixteen measured antecedents and the four outcome antecedents delivered a uniquely rich truth table (a matrix of 74 columns x 150 rows). Both presence and absence of antecedent conditions are considered in the configurations of causal conditions. The meticulous analysis process executed, using the fsQCA software (provided by COMPASS), resulted in more than 60 pages of complex and parsimonious solutions for further consideration and considered dialogue between the cases and the theory. (See Table V for an extract.)

TABLE V ABOUT HERE

The findings include 210 XY plots and more than 580 possible paths or useful models for successful outcomes. Meticulous analysis of the consistency and coverage of the models involving 600 decisions resulted in 65 significant models for configurations of teaching methods that are sufficient for decision confidence and decision competence in management strategy making, given a specific context and specific goal-based scenario. Table VI displays the influence of the simple antecedent (tool) treatment conditions on high decision competence.

TABLE VI ABOUT HERE

Consistency (C1) and Coverage (C2) Outcomes

This section covers each of the in-basket scenario assessments individually and the last section, under findings, will deal with the combined decision competence/success (DC) and decision incompetence (DI) over all four in-baskets.

Key Findings for Decision Competence in In-basket A, Exercise #1: Assessments of Decision Competence Causal Paths

In-basket A probes decision success for Mr Pizza's advertising; where well-supported, case and evidence-based advertising decisions are contrasted with low-evidence sponsorship decisions. Competency training highlighted the need for evidence-based decisions. In contrast, placebo information (PI) highlighted relevant (and irrelevant) issues such as integrated promotional activities, clear direction and customer benefits. Table VII illustrates the intermediate solutions of causal models for high decision confidence for in-basket 1 assessments for which consistency registers above 0.75 score. Rihoux and Ragin (2009, p. 109) define set-theoretic "consistency" as "the

degree to which the empirical evidence is consistent with the set theoretic relation question.”

TABLE VII ABOUT HERE

The first two models in Table VII separately and individually account for more than 30% of the memberships of the outcome and are both thus highly useful causal models. Other models (also called pathways to success) are less predictive of general success outcome, due to the low coverage scores. The causal path: $\sim\text{devil} \bullet \text{gbs} \bullet \sim\text{group}$ explains that participants receiving the goal-based scenario (GBS) treatment AND non-exposure to devil’s advocate (DA) dissent AND not working in groups (making the decisions as individuals) display high decision competence. This recipe explains approximately 30% of sum of the memberships in the outcome. Relevant and useful configurations must have a frequency threshold based on the number of cases greater than 0.5 membership in each configuration (Ragin, 2004), a consistency threshold above the minimum level of 0.75 and, for studies in social sciences, coverage of between 20% and 60%. There is no treatment that is necessary or sufficient to associate with high decision competence for Exercise #1. Also note that the theory that management experience alone or formal training alone is sufficient for a decision-maker to achieve decision competence, has been refuted. When the combination of JDM experience and andragogical treatments are considered, some models report high levels of consistency, but the coverage is 10% or below. Thus, although the recipes are very consistent and thus the models are useful to explain the decision success, they do not explain a large proportion of the cases; once more confirming that Simon’s (1960) and Weick’s (1995, 1996) theories that andragogs need to consider different contexts and different

demographics in the preparation and delivery of learning/decision competency development aids.

For all other causal recipes the causal conditions are sufficient to deliver decision competence; consistency is well above 0.75, which indicates that the models are useful in predicting decision competence. Figure 1 shows the XY plot for this useful path ~group•~devil• conf_1_c. From this model, given this particular set of decisions and scenarios, executive decision-makers (here MBA students) with high levels of formal education and lower levels of management experience, measure high levels of decision competence. Later contextual exercises do not have the same result and thus cannot be generalized over all types of executive decisions or for all.

FIGURE 1 ABOUT HERE

Key Findings for Decision Competence in In-basket B; Exercise #2:

TABLE VIII ABOUT HERE

In-basket B probes decision success for L-Guys and T-Guys; where profit-oriented and market share-oriented decisions are contrasted. The competency training provided highlighted the need to achieve high levels of profit. In contrast, incompetency training provided the BCG matrix and the experience curve. Analyzing models for success (Table VIII) for in-basket B of configurations and causal paths for improved decision competence by all four andragogical treatment antecedents provides the following complex solution:

$(\sim\text{devil}\bullet\sim\text{kbi}\bullet\sim\text{gbs}) + (\sim\text{gbs}\bullet\text{group}) + (\sim\text{devil}\bullet\text{kbi}\bullet\text{gbs}) \rightarrow \text{bask2}$, where “bask2” refers to selecting the better answer, option B.

Individual participants who did not receive instructions to consider the cautionary view of a DA associate with high decision competence for the in-basket 2 assessments.

Although this could result from the limited diversity in the data set, it also stands to reason that individuals working on their own, not distracted by alternatives and competing viewpoints, could focus energy and rely on their own knowledge and skills to determine effective answers. The causal path $\sim\text{devil}\bullet\text{kbi}\bullet\text{gbs}$ could reasonably be explained by similar reasoning; that is, a keen focus on key issues highlighted in knowledge-based information decision aids (e.g. “drop your tools” such as the BCG matrix and use simple heuristics such as profit orientation) as well as the clearly defined goals and roles in gbs treatments. The plot of this useful model for decision competence ($\sim\text{group}\bullet\sim\text{devil}\bullet\text{gender}\bullet\text{age}\bullet\text{man_exp}$, from Table VIII) appears in Figure 2, which shows that by far the largest number of cases are in the upper triangle and the ratio of high decision competence (high Y) to high membership of the four-condition configuration is approximately 10:3 (30:9), making this a highly predictive model with very high proportional representation of success (“bask2”).

FIGURE 2 ABOUT HERE

Key Findings for Decision Competence in In-basket C; Exercise #3

In-basket C probes decision success for the RED annual RISC sales conference. Decision-makers had to select from nine alternative hotels to recommend a preferred conference facility to a prospective client. The decision demands students to be mindful of client goals and pre-set requirements, as well as the use of “take the best” and other

decision heuristics. Competency training highlighted decision heuristics and sense-making tools, whilst incompetency training focused on the weighted priority matrix. For the latter a pre-designed weighted priority matrix was included as a “decision aid.”

TABLE IX ABOUT HERE

Table IX illustrates the findings for decision competency In-basket C assessment simulations. The success recipes for In-basket #3 differ noticeably from those paths indicated for simulations in In-baskets A, and B. Comparison of the results over the three contexts confirms Bandura’s (1982, 1986) position that the researcher should not look for a single, specific cause of behaviour. Human behaviour is affected by personal judgements, experiences, norms and values, but is simultaneously affected by cognitive, behavioural, and environmental factors in conjunction and differentiates between them. Bandura states that outcomes will be affected in different ways depending on each situation and on the individual. No single condition is either sufficient or necessary to result in high decision competence. This confirms the assertions by Wagemann and Schneider (2010, p. 386) who point out that “hardly ever is a singly condition found to be sufficient for all cases under examination. Instead, empirical and research reality most of the time reveals that conditions are only sufficient in combination with other conditions (‘conjectural causation’),” and (2) QCA can take equifinality of comparative case studies idiosyncratic explanation into account. A further observation is that no success recipes result when only demographics (no other treatment conditions) are considered. This indicates that no combination of demographic measured conditions without any treatment condition is necessary or sufficient to associate with high decision competence.

Key Findings for Decision Competence in In-basket D; Exercise #4

In-basket D explores decision success for the scenario of Mary, a highly competent and long-term key staff member, who offends a key client. Decision-makers had to select a single, preferred course of action from five not-so-ideal solutions. The decision demands insight into key talent development as well as key client retention and service recovery theories. According to the consulting experts involved in developing the In-basket #4 simulation and the alternative choices, soft skills such as empathy and mindfulness would be beneficial to the decision-maker.

TABLE X ABOUT HERE

Table X displays intermediate solutions. The causal path which configures the conditions $kbi \bullet \sim devil \bullet \sim gbs \bullet group$ (“not knowledge-based information in the treatment,” “not DA dissent,” “not GBS”) and the treatment antecedent of “group inter-active decision-making” in combination is useful to achieve decision competence in the participants. The overall solution consistency is 91% and the solution coverage is 12%. These numbers indicate that the set theoretic relationship between high outcome and the causal conditions is moderately useful in predicting decision competence. The model therefore has limited coverage in the number of cases. In other words, there are others models (configurations X) that will work equally well in predicting high decision competence (Y_1). This is not the only model that will give researchers a reasonably accurate assessment of high decision competence. The coverage and consistency measures demonstrate that the recipe: $kbi \bullet \sim devil \bullet \sim gbs \bullet group$ is sufficient to deliver high decision competence in participating students, but low coverage indicates that it is not a powerful success recipe. This recipe indicates that for Exercise #4, participants exposed to the knowledge-base competency training, and did not receive the devil’s advocacy role, and worked in groups, associate with high levels of decision competence. No useful

models result for recipes which only consider measured demographic antecedent conditions. When all eight treatment and antecedent conditions are considered in success recipes, two useful pathways result with consistency >75% and coverage of 8%.

Core Findings for Decision Competence aggregated over all four In-basket Decision Competence (success_c)

TABLE XI AND FIGURE 3 ABOUT HERE

Table XI and Figure 3 set out the core findings of the overall results when all four in-basket assessments are aggregated. Note that these are not “key success factors” as the dominant discourse (e.g., Cooper & Kleinschmidt, 1995) reports via traditional statistical methods of marketing research. This research finds that no single treatment or measured antecedent is necessary for high decision competence, but that the configuration of measured antecedents in the recipe (note that gender denotes male and ~gender denotes female participants): $(educ_c) + (\sim man_exp_c \bullet age_c) + (\sim man_exp_c \bullet gender) \rightarrow DC$. None of the measured demographic conditions are sufficient to lead to high decision competence. In contrast, when the andragogical treatments are considered, none of them are necessary or sufficient to associate with high decision competence. The first configuration of conditions, marked “***” in Table XI, signifies that participants’ low levels of self-reported management experience (<5 years), young (<40) and male (gender) associate with high levels of decision competence (DC) when working in a group with no devil’s advocate dissent OR “◆” participants with lower levels of management experience (<5 years), high levels in formal education (>post grad qualification) and high age (>40 years) associate with high decision competence.

Note in Figure 3 that 18 of 22 cases with high $kbi \sim devil \cdot group$, make highly competent decisions ($p < .01$ in testing for equal proportions). Thus, this complex combination of antecedent conditions is sufficient relatively consistently in achieving high competence when considering decisions involving hard and soft skill competencies.

TABLE XII ABOUT HERE

The configural recipes in Table XII indicate that none of the treatments are singularly necessary and sufficient to associate with high decision competence. We can also deduce that educationalists need to be cognisant of the impact of measured conditions on participants' decision competence. The presence of all six measured antecedents in the configuration of conditions set out in Table XII indicates that none of these are negligible when designing development interventions. The only treatment that is not necessary AND not sufficient in impacting decision competence is group. One certain statement is that high decision incompetence associates with group interactive decision-making and not receiving a GBS treatment ($group \sim gbs$). The implication for educationalists is that group work with the absence of clear goals combined with clear task objectives as used in SIs and training group members to consider the impact of the decision on different functions/objectives (normally represented by the role-players) is highly likely to result in poor decision outcomes.

The next section examines the decision competency and decision confidence performance of all participants over all in-basket simulations. The section indicates overall performance and does not analyze or demonstrate how participants performed in each of the separate marketing dilemmas for each of the in-basket simulations, which differed substantially in cognitive complexity (as rated Bloom's taxonomy of learning).

Examining Decision Incompetence (DI) Aggregated over All In-baskets

The primary outcomes for this fsQCA study are decision competence (success + *baski*). Building on the insights and recommendations of Ragin (2008), Goldstein and Gigerenzer (2012), Armstrong and Collopy (cf. Woodside (2013), the analysis now turns to examine what simple or complex configurations of conditions lead to the absence of high decision performance or not-success, labelled decision incompetence (DI) (~ success + ~*baski*). Table XIII shows the aggregated findings from the four In-basket simulations for DI – the same set of 150 cases analyzed to produce the findings for decision competence in this study. DI causal recipes are not the negated opposite of causal recipes for decision competence. The models are complex and more often than not contain three or four terms for both DC and DI outcomes. The asterisks (**) in Table XI indicates a very useful model, whilst “♦” indicates a marginally useful model. Table XIII here lower education and NOT in group leads to success—more confident with own answer, perhaps multiple opinions lead to confusion or groupthink (Janis); although gender appears (male = gender; female = ~gender).

TABLE XIII ABOUT HERE

Higher education combines with group to lead to success-groups

High DI associates with group interactive decision-making in combination with not receiving a GBS treatment (group•~*gbs*). Not only is consistency very high (0.92), but the model is empirically highly relevant and covers 72 percent of all cases. The implication for educationalists is that group-work in the absence of clear goals as in case-based scenarios AND not training group members to consider the impact of the decision

on different functions/objectives (normally represented by the role-players) is highly likely to result in poor decision outcomes.

The most striking feature of Table 13 is that ~success is the only outcome which associates with a single node solution (~devil) over the entire study (consistency is high at 0.9). This finding is a highly useful and empirically important model since the coverage score is 0.89. The condition ~devil is present in all but two of the configurations of conditions that associate with high membership in the outcome set DI. It is thus not a necessary but a sufficient condition for DI in the context of this laboratory experiment. Not-devil (~devil) is sufficient to cause DI, but is not necessary for the outcome. The utility of exploring complex causal combinations in an effort to explain outcomes is clear. The results may also account for conflicting conclusions regarding the role of different andragogical methods and measured antecedents when scholars attempt to explain decision competency and decision incompetency. Learning about these complex causal models will aid educationalists' and practitioners' understanding of some of the factors (antecedent conditions) useful to consider when designing and re-engineering curricula.

Due to the complexity of the models and the diversity of conditions for different contexts, management trainers might have to refer to guides or checklists, rather than have a set of simple causal models to memorise, as this study aimed to produce. In the words of Gawande (2009), "We live in a world of great and increasing complexity, where even the most expert professionals struggle to master the tasks they face. Longer training, ever more advanced technologies—neither seems to prevent grievous errors. But in a hopeful turn... Gawande finds a remedy in the humblest and simplest of techniques: the checklist." In an article by the same title, Gawande and Zipple (2010, p. 77) laude the benefits of checklists and state, "Checklist reduce the risk of being trapped

by own flaws and limitations. Done well, a checklist can be a powerful way to reduce the risk that essential steps are overlooked in completing a task.” As Gladwell (2010) proclaims in his review of Gawande’s book, “Experts need checklists—literally—written guides that walk them through the key steps in any complex procedure.” A next step to follow this study could (and perhaps should be) the development of checklists to aid scholars and practitioners in selecting teaching methods and tools to build management competencies in nurturing their opposable minds.

Findings, Interpretations, and Implications

This study contributes to understanding of executive decision competency and andragogy in four ways. First, the study empirically substantially extends the research relating to training methods and alternative management development andragogies (Gigerenzer & Brighton 2009; Green 2002, 2005, 2010; Green & Armstrong 2009; Weick, et al. 2005) on managerial competency and incompetency. Second, the study contributes to the body of knowledge and responds to the call for rigorous, objective and compelling research in of the field of simulations and gaming (Anderson & Lawton 2009; Feinstein & Cannon 2002; Feldman & Lankau 2005; Gosen & Washbush 2004). Gosen and Washbush (2004, p. 286) report that, based on Bloom’s (1956) taxonomy of learning and rigorous research design standards, “There have not been enough high quality studies to allow us to conclude players learn by participation in simulations or experiential exercises.” Third, experimental laboratory research permits high level of control over the experimental environment and the treatment variables (Campbell & Stanley, 1963). Fourth, managerial development via a continual series of experiential learning interventions and this study mirrors managers’ progressions in real-life contexts, thus ensuring high face validity (Hsu 1989; Schippmann et al. 1990).

For the present study, simply combining all treatments in pursuit of high competence was not an effective strategy. No single (either complex, intermediate or parsimonious) recipe results in high decision competence in all contexts. To aid recall and ease of application, a simple model composed of a catch-all, single training solution to aid in the development of managerial decision confidence would have been ideal. But isomorphic with reality, different antecedent recipes relate to decision competence not only in the four different in-basket simulations but also with measured (chronic) antecedents (e.g., self-reported knowledge and skill levels as well as the demographic age). High decision incompetence associates with group interactive decision-making and with not receiving a GBS treatment (group•~gbs). The implication for educationalists is that group work in the absence of clear goals in combination with clear task objectives as used in SIs and training group members to consider the impact of the decision on different functions or objectives (normally represented by the role-players) is highly likely to result in poor decision outcomes.

Practitioners often express the perspective that their managerial experience alone is a sufficient condition causing high decision competence (Nutt, 1989). This belief could not be confirmed. In contrast, a moderately useful model (due to consistency of 0.75; coverage 0.33) for not-decision success (~success_c interchangeable with decision incompetence) is that if participants self-report both high levels of management experience (man_exp_c) AND high levels of education (educ_c), then high membership in the outcome of high decision competence (success_c) results. Thus, participants who report the combination of postgraduate education and having more than five years of managerial experience are more competent in making effective decisions.

When high membership to decision incompetence (~Boolean success) is carefully analyzed in configured models (Table 13), a number of interesting phenomena appear.

One useful complex recipe relates to high decision incompetence; $\sim\text{devil} \bullet \sim\text{group} \bullet \sim\text{gender} \bullet \text{age}_c \bullet \text{man_exp}_c \rightarrow \sim\text{bool_success}_c$. (Note that “ $\sim\text{bool_success}_c$ ” indicates 1 minus success, calibrated by using Boolean algebra (i.e. overall success = 0 for all four in-baskets)).

The treatment antecedents in these models indicate sufficiency, but not necessity. No single antecedent could predict decision confidence to a high level. From these three models educationalists can infer that high decision incompetence associates with decision-makers who are not in a group and did not receive devil’s advocacy simulations, or that high decision incompetence is associated with decision-makers who did not have the competency training and did not have devil’s advocate dissent. Further, high decision incompetence was the frequent outcome of contexts where participants did not participate in goal-directed simulations but did work in groups.

This study confirms and extends the findings of Simon and colleagues (1982, 1989, 1992) that cognitive ability alone, experience alone or prior knowledge of decision makers alone will not lead to decision competency. Managerial decision-makers should be cognisant of the contextual influences on decision processes and outcomes. Similarly, educationalists developing managerial decision competency need to raise awareness among future decision-makers of the context. This reaffirms the work by Boyatzis (1982), Boyatzis, Baker, Leonard, Rhee, & Thompson (1995) and Boyatzis and McKee (2005) that stresses the importance of “mindful” leadership. Different recipes relate to high performance and differ from decision scenario to decision scenario (as reflected by the different results for the four in-basket simulations). All four treatments (antecedents) together do not deliver the desired or expected results. All treatments in combination do not necessarily result in either improved competence or in improved confidence. This finding is isomorphic with real life, where one single, clear-cut catch-all recipe to success

is unavailable. Observations throughout the experiments indicate that merely having the tool(s) and decision aids in writing is not sufficient to affect the outcome(s). Based on the work of experiential learning theorists (Schank, 1994; Schweiger et al., 1986; Schwenk, 1984; Senge, 1990; Shaw & Linnecar, 2007) and own experience, having access to the decision aids and competency training tools is not sufficient. Participants need time to practice how to use the tools. Future researchers should allow ample time for practical, inter-active training of the participating students and allow students time to practice using the decision aids before implementing the experiment. Alternatively pre-test and post-test methods could be employed. The study presents additional suggestions for future research. Table IV summarises the findings and relates the causation models back to the original propositions.

TABLE VII REPEATED ABOUT HERE

Gawande and Zippel (2010, p. 77) laude the benefits of checklists, “Checklist reduce the risk of being trapped by own flaws and limitations. Done well, a checklist can be a powerful way to reduce the risk that essential steps are overlooked in completing a task.” The study here provides several useful checklists to prevent educationalists and practitioners from accepting “truths” and to facilitate competence in marketing strategy competency training. A single truth emerges from this study; much remains to be learned about knowledge transferral in particular executive-decision competency development. Careful consideration of the unique learners and their different prior knowledge and experience and their personal demographics as well as the context the knowledge will be used in, is at the heart of the discoveries of this study.

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Table I
Propositions Tested in the Study

Number	Training Tools in Context Propositions
P₁	Training via goal-based scenario (GBS) results in more competent decision-making than inactive knowledge learning.
P₂	Competency increases by adding formal assignment of a devil's advocacy (DA) role-player versus natural, unguided group interactive decision-making (a type of placebo condition) to group discussions in making decisions.
P₃	The introduction of incompetency training and decision aids such as BCG and Priority matrices result in less competent decision-making, but is associated with high decision confidence
P₄	Role-playing introduced through CBR/GBS increases decision competency versus group inter-active decision-making alone.
P_{5a}	Decision-making by an individual is more effective than group decision-making when the group uses no formal group-discussion protocols (e.g. formal role-playing as introduced through GBS).
P_{5b}	Group interactive decision-making is more effective than individual decision-making when the group uses formal group-discussion protocols (e.g. formal role-playing as introduced through GBS.)
P₆	Individuals trained in contextual influences on decision-making (e.g. drop-your-tools contexts) and the use of implicit thinking (e.g. "intuitive first choice/gut feeling") make more competent decisions, compared to groups using formal group-discussion protocols.
P_{7A}	The introduction of irrelevant information leads to cognitive overload and causes a greater proportion of incompetent decisions (for individual participants as well as group interactive decisions).
P_{7b}	The introduction of irrelevant information through complex decision aids leads to lesser confidence in the decision that (for individual participants as well as group interactive decisions).
Number	Decision-Maker Propositions
P₈	An individual with more judgment and decision-making (JDM) experience in managerial judgements makes more competent decisions compared to decision-making by individuals with less managerial experience.
P₉	Groups with a more diverse spread of JDM experience make more competent decision compared to decision-making groups with a lesser JDM experience.
Number	Propositions with a Combination of Tools and JDM Conditions
P₁₀	Training via GBS results in more competent decision-making than inactive knowledge learning among individual with high versus low JDM experience.
P₁₁	Participants exposed to a combination of treatment conditions outperform participants who receive only one of the treatments, resulting in higher levels of decision confidence and higher levels of decision competence.

Table II**Twelve configurations of treatments in the experiment**

Combination of Conditions	Cell Code	Cell Code	Combination of Conditions
~group●~gbs●~devil ●comp	INF1	GNF1	group●~gbs●~devil ●comp
~group●~gbs●~devil ●~comp	INF2	GNF2	group●~gbs●~devil ●~comp
~group●gbs●~devil ●comp	IBF1	GBF1	group●gbs●~devil ●comp
~group●gbs●~devil ●~comp	IBF2	GBF2	group●gbs●~devil ●~comp
~group●~gbs●devil ●comp	IND1	GND1	group●~gbs●devil ●comp
~group●~gbs●devil ●~comp	IND2	GND2	group●~gbs●devil ●~comp

Table III

Research Design—Configurations of Conditions & Number of Units

Combination of Conditions	<u># of Units</u> No. of Decisions	Cell CODE	Cell CODE	<u># of Units</u> No. of Decisions	Combination of Conditions
~group • ~gbs • ~devil • comp	<u>22</u> 88	INF1	GNF1	<u>9</u> 36	group • ~gbs • ~devil • comp
~group • ~gbs • ~devil • ~comp	<u>25</u> 100	INF2	GNF2	<u>12</u> 48	group • ~gbs • ~devil • ~comp
~group • gbs • ~devil • comp	<u>21</u> 84	IBF1	GBF1	<u>12</u> 48	group • gbs • ~devil • comp
~group • gbs • ~devil • ~comp	<u>19</u> 76	IBF2	GBF2	<u>13</u> 32	group • gbs • ~devil • ~comp
group • ~gbs • devil • comp	<u>8</u> 32	GND1	GND2	<u>9</u> 36	group • ~gbs • devil • ~comp
Actual number of students = <u>95</u> Actual number of decisions = 380			Actual number of students = <u>55</u> Actual number of decisions = 220		

Key

Comp ≡ Competency training, Code 1

~comp ≡ Incompetency training, Code 2

devil ≡ Devil's advocate, Code D

~devil ≡ No devil's advocate dissent, Code F

group ≡ Group, Code G

~group ≡ Individuals, Code I

gbs ≡ Goal-based scenarios, Code B

~gbs ≡ No goal-based scenarios, Code N

Table IVa)

Propositions and causation models, context related

#	Context related propositions	Configurations for possible parsimonious models	Evidence in support?
P ₁	In groups, training via goal-based scenarios results in more competent decision-making than inactive knowledge learning.	$gbs \bullet group \rightarrow high\ success$	No
		$\sim gbs \bullet group \rightarrow \sim success$	Yes
P ₂	Competency increases by adding formal assignment of a devil's advocate role-player versus natural, unaided group interactive decision-making (a placebo condition) to group discussions in making decisions.	$group \bullet devil \rightarrow high\ success$	No
		$group \bullet \sim devil \rightarrow \sim high\ success$	Partial, (some contexts)
P ₃	The introduction of incompetency training and decision aids such as BCG and Priority Matrices result in less competent decision making, but result in high decision confidence	$\sim comp \bullet devil \rightarrow high\ conf_c$ $\sim comp \bullet group \rightarrow \sim success$ $\sim comp \bullet \sim group \rightarrow \sim success$ $\sim comp \bullet devil \rightarrow high\ conf_c$	Confidence relates to antecedents not treatment
P ₄	Role-playing, introduced through the role of GBS, increases decision competency versus group inter-active decision-making alone	$gbs \bullet group \rightarrow high\ success$	No
		$group \rightarrow \sim success$	No
P _{5a}	Decision-making by an individual is more effective than group decision-making when group uses no formal group-discussion protocols (e.g. as introduced through GBS)	$gbs \bullet \sim group \rightarrow high\ success_1$	No
		$\sim gbs \bullet group \rightarrow \sim high\ success_2$	Yes
P _{5b}	Group interactive decision-making is more effective than individual when the group uses formal group-discussion protocols	$gbs \bullet group \rightarrow high\ success_3$	Partial
		$high\ success_3 > high\ success_1$	Partial
P ₆	Those trained in contextual influences (e.g., drop-your-tools contexts) and the use of implicit thinking (e.g., intuitive first choice/gut feeling) make more competent decisions than groups using formal group-discussion protocols	$comp \bullet \sim group \rightarrow high\ success_4$	No
		$comp \bullet group \rightarrow high\ success_5$	No
		$high\ success_4 > high\ success_5$	No
P _{7a}	The introduction of irrelevant information leads to cognitive overload & causes a greater proportion of incompetent decisions (for individual participants as well groups)	$\sim comp \bullet \sim group \rightarrow \sim high\ success$	No
		$\sim comp \bullet group \rightarrow \sim high\ success$	No
P _{7b}	The introduction of irrelevant information through complex decision aids leads to lower confidence in the decision that (for individual participants as well as groups)	$\sim comp \bullet \sim group \rightarrow \sim high\ conf_c$	No
		$comp \bullet group \rightarrow \sim high\ conf_c$	No

Table IVb)

Propositions and causation models, Cognitive Ability-Related Propositions

#	Cognitive ability-related propositions	Configurations for possible parsimonious models	Evidence in support?
P ₈	Decision-making by individuals with more experience in managerial judgment and decision-making (JDM) make more competent decisions compared individuals with lower levels	man_exp•~group → high success	No
		~man_exp•~group → ~high success	No
P ₉	Groups with higher levels of management experience, make more competent decisions compared to decision-making groups with less experience	man_exp•group → high success	No
		~man_exp•group → ~high success	No
P ₁₀	Individual decision-makers with higher vs. lower levels of experience in JDM make more competent decisions and are more confident in their decision competency than those with lower levels of experience in JDM	man_exp•~group → high conf_c	No
		~man_exp•~group → ~high conf_c	No
P ₁₁	Individuals with high versus low levels of education and JDM experience are more competent and more confident in their decision outcomes	edu•~group → high conf_c	No
		~edu•~group → ~high conf_c	No
		~edu•~group → high success	No
		~edu•~group → ~high success	No

Table IVc)

**Propositions and causation models, Propositions with a
Combination of Contextual and Cognitive Conditions**

#	Cognitive ability-related propositions	Configurations for possible parsimonious models	Evidence in support?
P ₁₂	Groups of participants with high levels of management experience and high levels of formal education are less competent than individual decision-makers with high levels of management and education experience but the first recipe does not associate with higher levels of confidence	man_exp•educ·~group → high success	No
		man_exp•educ·group→ ~high success	No
		man_exp•educ·~group → ~ high conf_c	No
P ₁₃	Participants exposed to a combination of treatment conditions outperform participants who receive only one of the treatments, resulting in higher levels of decision confidence and higher levels of decision competence	A vast number of configurations of conditions tested by the fsQCA software are discarded due to too low consistency and unacceptable coverage scores	No

Table V**Recipes for High Decision Competency Outcomes for all simulations**

Recipes/Pathways for High Outcomes	Consistency	Coverage
All models of overall decision competence (over all four in-basket simulations)	C1	C2
~gbs●~kbi●conf_tot_c	76	29
conf_tot_cil●kbi●~devil ●~gbs	77	24
gender●~age_c●~man_exp_c●~chng_tot_c	78	28
~age_c●man_exp_c●~conf_c●~chng_tot_c	74	30
gender●~age_c●~man_exp_c●~conf_tot_c	80	31
gender●~age_c●~man_exp_c●~chng_tot_c	81	22
All models of overall ~ decision competence (over all four in-basket simulations using Boolean Algebra)		
~devil	90	89
group●~gbs	92	27

Table VI

**Simple Antecedent (Tool) Treatment Conditions' Influence on High Competence:
Consistency (C1) and Coverage (C2) Outcomes**

Training tool	Exercise 1		Exercise 2		Exercise 3		Exercise 4		Meta-analysis	
	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2
Group versus Individual	74	40	83	44	50	64	52	42	53	47
GBS v. Placebo Information (PI)	82	46	83	58	43	56	46	48	50	45
Devil's advocacy versus PI role	62	10	89	14	41	15	41	10	44	11
KBI versus PI on the case	69	43								
KBI versus BCG			85	51						
KBI vs. Weighted priority matrix					24	35				
KBI versus Nocebo							59	55		
KBI overall									45	45
INCOMP training overall									52	57

Notes. Decimals omitted. Exercise 1 = advertising media decision; exercise 2 = pricing decision; exercise 3 = hotel selection decision; exercise 4 = key client and staff retention decision. A consistency (C1) index above 80 is an indication of high consistency, that is, a high (membership) score for the antecedent condition indicates high competence occurs in most instances. The acronym kbi denotes: Knowledge-based information and GBS denotes goal-based scenarios.

Table VII

**Simple Antecedent (Tool) Treatment Conditions' Influence on High Competence:
Consistency (C1) and Coverage (C2) Outcomes
(Advertising Decision Using Knowledge-based information v. Nocebo)**

Configuration	Recipes/Pathways for High Outcomes	C1	C2
Treatments	IN-BASKET A: Exercise 1		
Andragogy tools	~kbi●~devil	89	53
	~devil●gbs●~group	86	30
	~kbi●~gbs●group	91	17
Demographics	~man_exp_c●educ_c	82	32
	~man_exp_c●~age●gender	84	26
	educ_c●~age●gender	82	19
Treatments & Demographics	~man_exp_c●~age●gender●~kbi ●~devil●~gbs	96	10
	~man_exp_c●~educ_c●age●gender●~devil●gbs●~group	96	10
	man_exp_c●age●gender●~kbi ●~devil●~gbs●~group	96	06

Notes. Decimals omitted. Exercise 1 = advertising media decision; exercise 2 = pricing decision; exercise 3 = hotel selection decision; exercise 4 = key client and staff retention decision. A consistency (C1) index above 80 is an indication of high consistency, that is, a high (membership) score for the antecedent condition indicates high competence occurs in most instances. Coverage C2 should be $2 \leq C2 \leq 60$ to indicate useful models (Ragin & Rihoux, 2008)

Table VIII

**Simple Antecedent (Tool) Treatment Conditions' Influence on High Competence:
Consistency (C1) and Coverage (C2) Outcomes
(Pricing Strategy Decision Using Profit versus BCG Decision Aids)**

Configurations	Recipes/Pathways for High Outcomes	C1	C2
Treatments	IN-BASKET B: Exercise 2		
Andragogy tools	~gbs●group	87	28
	~devil●~gbs●~kbi	84	27
	kbi●~devil●gbs	88	25
Demographics	age●~gender	89	18
	man_exp_c●educ_c	91	27
	educ_c●age	89	32
Treatments & Demographics	man_exp_c●educ_c●age●gender●~devil●~group	97	01
	~group●~devil●gender●age●man_exp	85	21

Table IX

Simple Antecedent (Tool) Treatment Conditions' Influence on High Competence: Consistency (C1) and Coverage (C2) Outcomes (Hotel selection using Take-the-best/Drop Your Tools or Weighted Priority Matrix)

Configuration	Recipes/Pathways for High Outcomes		
Treatments	IN-BASKET C: Exercise 3	C1	C2
Andragogy tools	kbi•~devil•gbs•group	78	21
Demographics	None reported		
Treatments & Demographics	~man_exp_c•~age_c•gender•~kbi•~devil•group	76	17
	~man_exp_c•educ_c•gender•~kbi•devil•~gbs•group	84	09
	~man_exp_c•educ_c•~age_c•kbi•~devil•gbs•group	81	09
	man_exp_c•~educ_c•age_c•kbi•~devil•gbs•group	93	10

Table X

**Simple Antecedent (Tool) Treatment Conditions' Influence on High Competence:
Consistency (C1) and Coverage (C2) Outcomes
[Key Client & Key Staff Retention Using Knowledge-based Information or Placebo]**

Configurations	Recipes/Pathways for High Outcomes	C1	C2
Treatments	IN-BASKET D: Exercise 4		
Andragogy tools	kbi●~devil●~gbs●group	91	12
	kbi●~devil●group	82	23
Demographics	None reported		
Treatments & Demographics	~man_exp_c●~educ_c●~age_c●~gender●~devil●~gbs●~group	92	08
	~man_exp_c●educ_c●~age_c●~kbi●~devil●~gbs●~group	78	08

Table XI

**Simple Antecedent (Tool) Treatment Conditions' Influence on High Competence:
Consistency (C1) and Coverage (C2) Outcomes
Overall In-basket Assessment Simulations Using KBI or Placebo Information (PI)**

Configurations	Recipes/Pathways for High Outcomes		C1	C2
Treatments	IN-BASKET A, B, C, & D: Exercise 1, 2, 3, & 4			
Andragogy tools	None reported			
Demographics	educ_c	Note >	66	61
	~man_exp_c•age_c	Note >	71	42
	~man_exp_•gender	Note >	62	47
Treatments & Demographics	~man_exp_c•~age_c•gender•~devil•~gbs•group**		78	10
	~man_exp_c•educ_c•age_c•kbi•~devil•group ♦		85	11

Table XII
All Solutions for Overall Decision Competence (baski)

All models of overall decision competence (all four in-basket simulations)	Consistency	Coverage
<u>Decision Competence</u>		
~gbs●~comp●conf_tot_c	0.76	0.29
conf_tot_c●comp●~devil●~gbs	0.77	0.24
gender●~age_c●~man_exp_c●~change_tot_c	0.78	0.28
age_c●man_exp_c●~conf_c●~chgn_tot_c	0.74	0.30
gender●~age_c●~man_exp_c●conf_tot_c	0.80	0.31
~educ_c●man_exp_c●conf_tot_c●chgn_tot_c	0.80	0.35
gender●educ_c●~man_exp_c●~conf_tot_c●chgn_tot_c	0.81	0.22
man_exp●age●edu_c (using Boolean Algebra)	0.73	0.30
<u>NOT-Decision Competence (using Boolean Algebra)</u>		
~devil	0.90	0.89
group●~gbs	0.92	0.27

Table XIII
All models of overall Decision Incompetence (DI) (\sim success_tot_c)

	Assessment Context	Consistency	Coverage
<u>Decision Incompetence (\simsuccess)</u>			
\sim group • \sim devil • gender • man_exp_c • age_c	→ \sim success (overall)	0.74	0.27
\sim devil	→ \sim success (overall)	0.90	0.89
group • \sim gbs	→ \sim success (overall)	0.92	0.72
\sim devil • group • \sim gbs	→ \sim success (overall)	0.90	1.00
\sim devil • \sim group + kbi • \sim gbs • group	→ \sim bask3	0.83	0.81
<u>Decision Incompetence(not_bool_success)</u>			
\sim devil • \sim group • \sim gender • age_c • man_exp_c	→ \sim bool_success	0.95	0.21

Figure 1

Plot of membership in decision competence in In-basket #1 assessment
against membership of the three-condition causal recipe

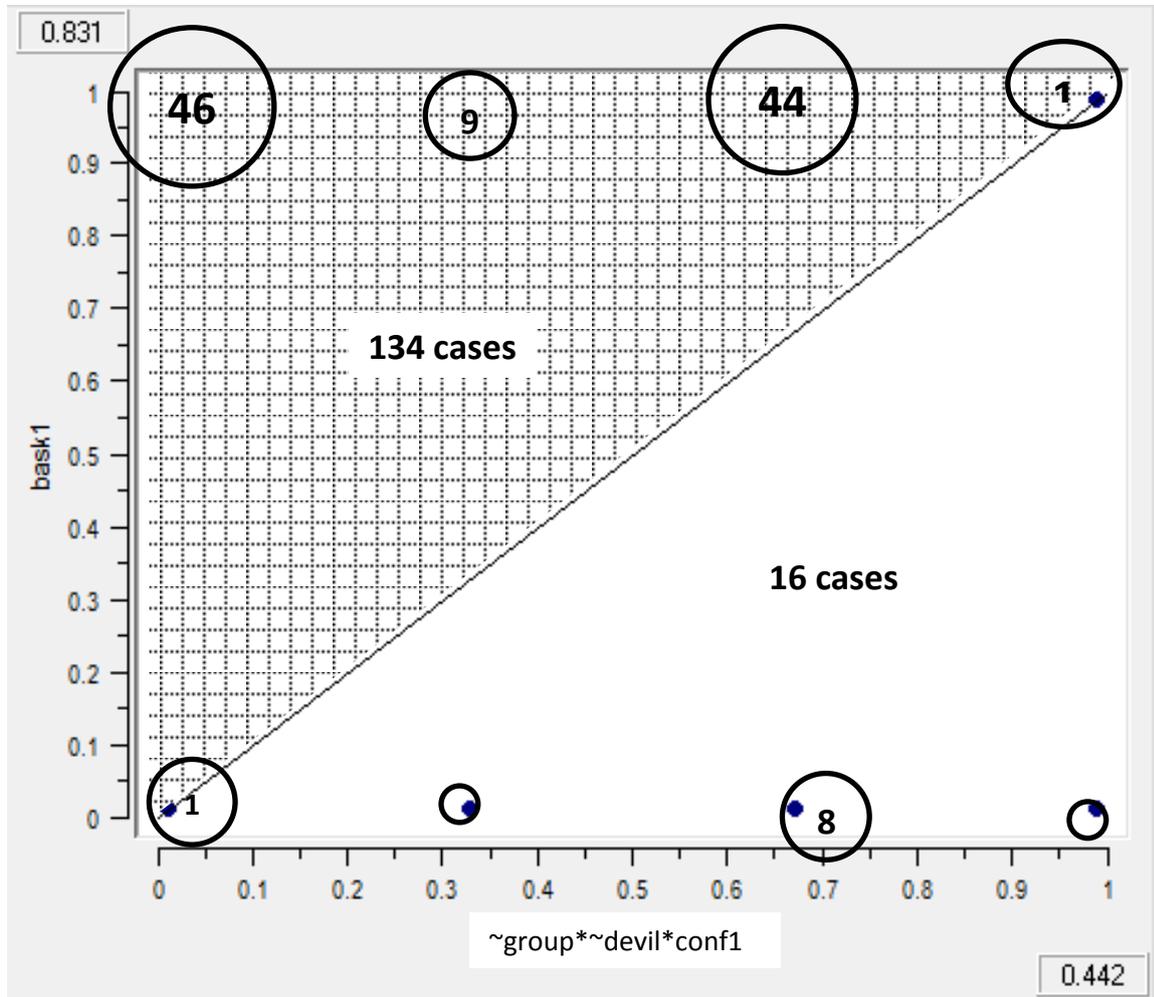


Figure 2

Analysis of Models for Success for In-basket #2 (Table VIII): Useful model for high decision competence, against membership in the five-condition causal recipe:

$\sim\text{group} \bullet \sim\text{devil} \bullet \text{gender} \bullet \text{age} \bullet \text{man_exp}$

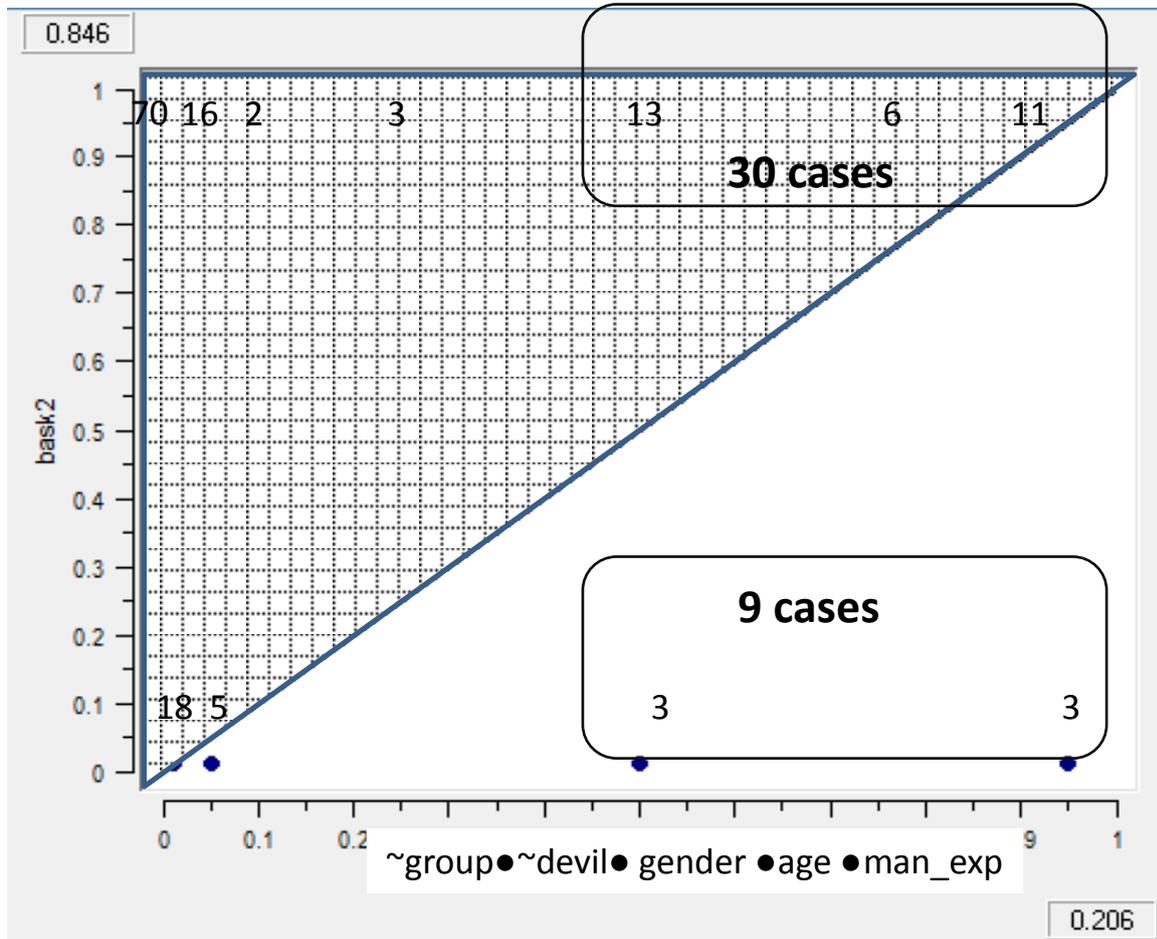
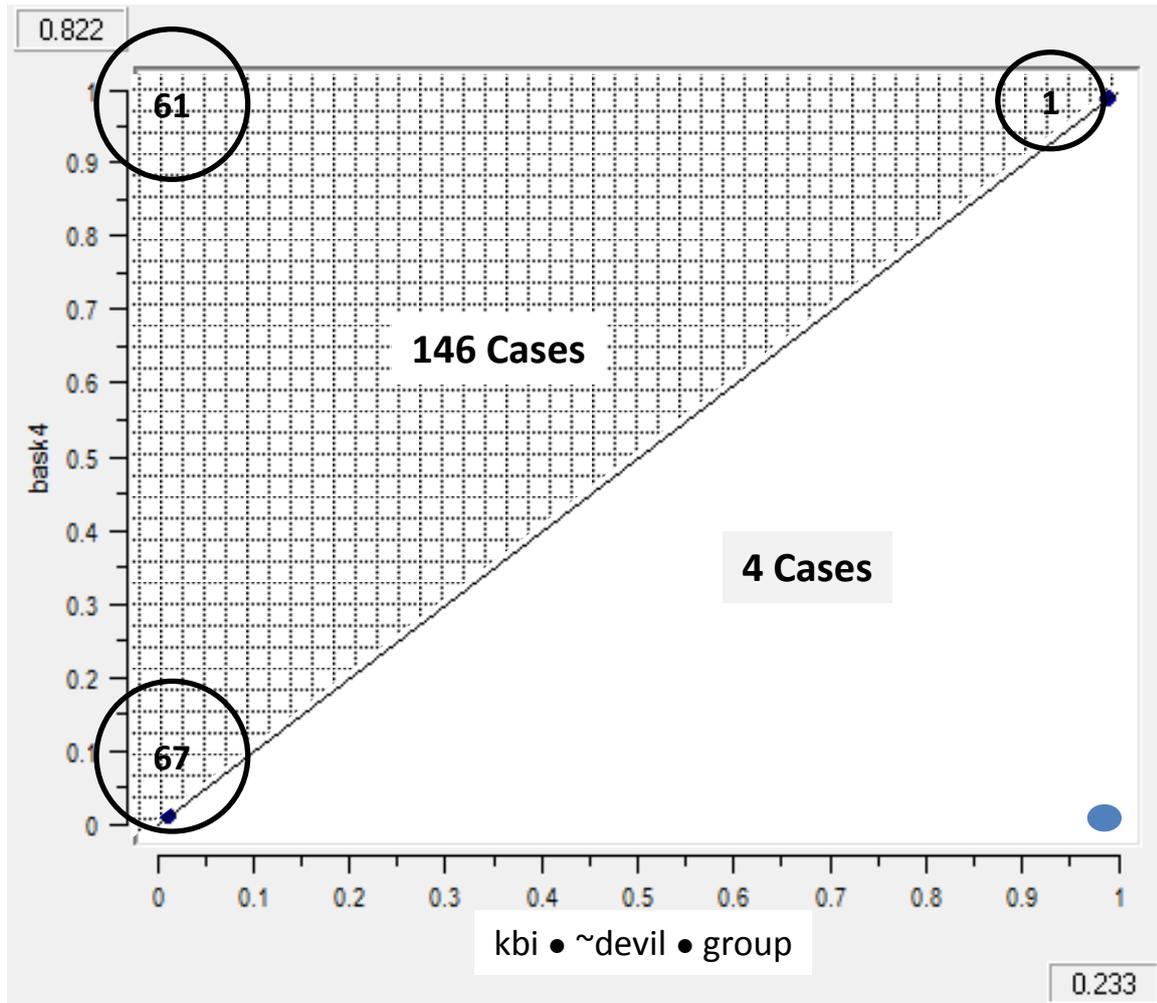


Figure 3

Model for Decision Competence for In-basket 4: Key Clients & Key Staff

Causal path for improved decision competency considering the four treatment antecedents



Appendix: Exercises

In-basket A Exercise #1: Advertising Media Decision @ Mr. Pizza

GND2 [Group, No GBS, Devil's Advocate Present, and Placebo Information (PI)]

President Pete Smith is going to increase advertising for the firm's brand, MrPizza that consists of franchises of 27 pizza restaurants in St. Louis. President Smith is going to double promotion expenditures.

Fran Jones, the firm's advertising manager, favors placing 80% of the additional funds in television and Facebook advertising because of the sales jump experienced in the firm's restaurants when the brand's TV commercials appear—sales increase 20 to 30 percent among the stores and profits jump as well.

Tom Hendricks, head of marketing, points out that the firm's pizza restaurant locations only cover 30% of the metro area--a lot of television advertising will be wasted. Tom favors using sponsoring events (rock bands and concerts) with the additional promotional funds as a way of increasing brand awareness and acceptance of the firm's brand. Fran disagrees; she views sponsorships as delivering little direct impact on sales.

President Smith is going to decide this week on spending the additional advertising funds.

Your consulting report to President Smith:

(1) Based on the information available in the case, select **one of the two options** in the case to recommend to President Smith, Fran, and Tom. Your choice: Please tick **ONLY ONE** preferred option here below:

Option	Place your ✓ in this column:
Option A: Place 80% of the additional funds in television and Facebook advertising	
Option B: Use sponsoring events (rock bands and concerts)	

(2) Provide between one and three reasons to support your recommendation to this firm on deciding on spending the additional advertising funds. (Use the back of this sheet if you require more space.) Your reasons:

Reason 1:
Reason 2:
Reason 3:

(3) Please indicate how confident you are that your answer is the correct answer. Please tick your level of confidence.

1	Not very confident	2	Somewhat confident	3	Confident	4	Very confident
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(4) Please indicate how likely you are to stick with your decisions, should you be asked to review them in two weeks time. Please tick your option

1	Very likely to change my decision	2	Somewhat likely to change my decision	3	I am unlikely to change my decision. I will stick with my current decision	4	I will not change my decision at all. I will definitely stick with my current decision.
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Exhibit 1A: Evidence on the Relationship between a ROI and effectiveness of advertising campaigns

GNF1 [Group Interactive Decision; No GBS; No devil's advocacy role-player, case-based and knowledge-based information]

Please think for a minute or two to yourself on how you might apply the information appearing on this page in making the decision. Also ask yourself: should you apply the information on making a decision that appears on this page?

Return on Investment (ROI) is used to measure the effectiveness of advertising campaigns. ROI is determined by comparing the cost of advertising to either sales or inquiries generated from the advertising effort.

The worst ROI occurs for situations where costs are high and response is low. Television and to some extent radio are the worst ROI advertising options. These are high cost with usually low response. You are reaching a large number of people that are not qualified prospects - in other words, they probably do not want your product or service. It is difficult to provide a clear and effective call for action. This is largely because of the short time you have the prospects' attention. The best advertising ROI is when the cost of the advertising is low and the sales or inquiries are high.

One of the cheapest advertising activities, and therefore likely to be one of the best advertising ROI efforts, for any business is networking. The key for successful networking is to follow up with prospects. Networking efforts likely to result in a high ROI would be a vendor or business booth at a networking event you would be attending anyway. Inexpensive advertising efforts can have good ROI. Being creative when it comes to handing out information and tracking the response from any given effort will show you what works best for your market. You do not have to invest many dollars in advertising to be effective

<http://www.essortment.com/small-business-tips-worst-roi-advertising-opportunities-23656.html>

Exhibit 1(i): A guide to Managing Media and Public Relations

GBF2 [Group Interactive Decision; GBS; No devil's advocacy role-player, PI information on Advertising]

Please think for a minute or two to yourself on how you might apply the information appearing on this page in making the decision. Also ask yourself: should you apply the information on making a decision that appears on this page?

1. *Have a strategy.*

Tailor your strategy for each public relations opportunity. Think about the audience you want to reach and how to create excitement. An effective part of your strategy should be to enforce your organization's core messages in all news releases.

2. *Have a good story.*

A news story must have a compelling beginning, middle, and end. Journalists recognize a strong story within seconds, so tell your story quickly and succinctly.

3. *Know your audience.*

You wouldn't follow up on a potential business opportunity without knowing something about their business, so don't call the news media blindly. Before you pitch to any media outlet, study their work. Read the publication, watch the show, and listen to the radio broadcast. Get familiar with the characteristics of the media outlet you are targeting. Find out about their main audience and their likes and dislikes. (Internet message boards are good for this.)

4. *Invest in relationships.*

The more you know about the media organization and your target editor, the better and more confidently you can pitch to them. Building relationships *now* means editors will be more likely to take your call when you've got an important story to tell. Best of all, even if they can't offer you coverage on this particular story, they may refer you to another reporter who can. As with any relationship, building trust is critical. Keep your promises, and be on time. Be upfront about what you can and can't do. You might not be able to do everything, but reporters will appreciate your honesty.

5. *Think before you speak.*

A word of caution: *everything* you say to a reporter is on the record, regardless of disclaimers. You are representing your organization at all times. The impression that you give has a definite impact on how the media views your organization.

6. *Monitor your media coverage.*

Media coverage shows your success. As a media relations expert, the end goal is always positive media coverage for your organization. When your organization is spotlighted in major media outlets, you bring attention and respect to your business

SOURCE: http://tldp.org/LDP/Linux-Media-Guide/html/howto_maximize.html; Retrieved 13 October 2011

Exhibit 1(iii): Advertising that expands consumption

GBF2 [Group Interactive Decision; GBS; No devil's advocacy role-player, PI information on Advertising]

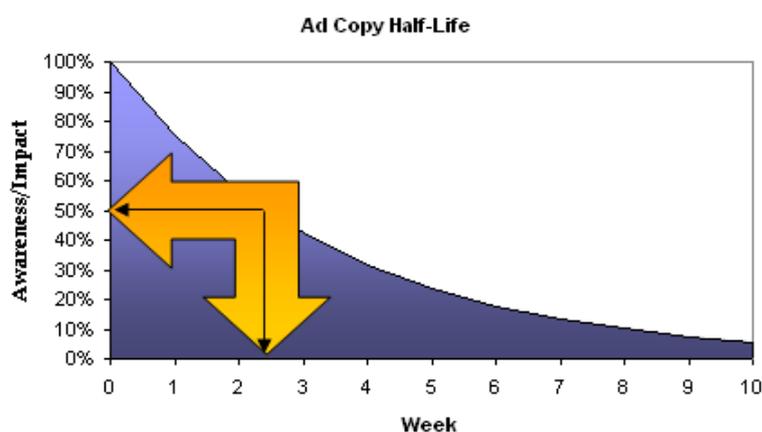
Please think for a minute or two to yourself on how you might apply the information appearing on this page in making the decision. Also ask yourself: should you apply the information on making a decision that appears on this page?

Advertising Adstock is a term coined by Simon Broadbent^[1] to describe the prolonged or lagged effect of [advertising](#) on consumer purchase behavior. It is also known as 'advertising carry-over'. Adstock is an important component of [marketing-mix models](#). Adstock is a model of how response to advertising builds and decays in consumer markets.

Advertising tries to expand consumption in two ways; it both reminds and teaches. It reminds in-the-market consumers in order to influence their immediate brand choice and teaches to increase brand awareness and salience, which makes it easier for future advertising to influence brand choice. Adstock is the mathematical manifestation of this [behavioral process](#).

The Adstock theory hinges on the assumption that exposure to [television advertising](#) builds [awareness](#) in the minds of the [consumers](#), influencing their purchase decision. Each new exposure to advertising builds awareness and this awareness will be higher if there have been recent exposures and lower if there have not been. In the absence of further exposures adstock eventually decays to negligible levels. Measuring and determining adstock, especially when developing a marketing-mix model, is a key component of determining [marketing effectiveness](#).

The lagged or decay component of Advertising Adstock can be mathematically modelled and is usually expressed in terms of the '[half-life](#)' of the ad copy, modeled using TV [Gross Rating Point](#) (GRP). A 'two-week half-life' means that it takes two weeks for the awareness of a copy to decay to half its present level. Every Ad copy is assumed to have a unique half-life. Some academic studies have suggested half-life range around 7–12 weeks,^[2] Other academic studies find shorter half-lives of approximately four weeks,^[3] and industry practitioners typically report half-lives between 2–5 weeks, with the average for [Fast Moving Consumer Goods](#) (FMCG) Brands at 2.5 weeks.^[4]



The copy in the above graph has a half-life of 2.5 weeks

References

Broadbent, S. (1979) "One Way TV Advertisements Work", Journal of the Market Research Society Vol. 23 no.3.

Leone, R.P. (1995) "Generalizing what is known about temporal aggregation and advertising carry-over", Marketing Science, 14, G141-G150.

Newstead, K., Taylor, J., Kennedy, R. and Sharp, B., 2009. Single source data: how do findings from individual-level Analysis converge with aggregate level advertising experiments? Journal of Advertising Research 49

In-basket B Exercise #2: Pricing Decision

You are the marketing manager of a manufacturing firm known as L-Guys, Inc. As the company's marketing manager, you are responsible for all marketing decisions and strategies, including the pricing structure of the firm's products.

Recently your company introduced a new highly technical product, and you have been asked to set the pricing strategy for this product. You calculate the present value of the total profits expected for your firm over the next ten years.

You are aware that your main competitor, T-Guys, Inc., intends to introduce a product that is very similar to the one that your firm has just introduced. You should assume that the competitor's product is as good as yours in every way that is important to the market, and the market is the same for both products. Therefore, the pricing strategy which you formulate for your product might take into account this competitor's decisions. You estimate the following results for each strategy:

Expected Profits and Market Shares over Ten Years

<u>Outcomes</u>	<u>L-Guys' Low-Price Strategy</u>	<u>L-Guys' High-Price Strategy</u>
L-Guys:	\$10.2 million profits 56.7% market share	\$20.4 million profits 48.6% market share
T-Guys:	Profits? 43.3% market share	Profits? 51.4% market share

Note. ? = unknown, profit information on T-Guys' product are unavailable to L-Guys' executives

Your consulting report to L-Guys:

1. Which pricing strategy do you select for L-Guys, please tick (✓) one choice:

Option	Place your ✓ in this column:
Option A: The low price Strategy	
Option B: The High price strategy	

2. Please provide between one and three reasons for your choice:

Reason 1:
Reason 2:
Reason 3:

3. Please indicate how confident you are that your answer is the correct answer.
Please tick ✓ your level of confidence:

1	Not very confident	2	Somewhat confident	3	Confident	4	Very confident
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- (4) Please indicate how likely you are to stick with your decisions, should you be asked to review them in two weeks' time. Please tick ✓ your option below:

1	Very likely to change my decision	2	Somewhat likely to change my decision	3	I am unlikely to change my decision. I will stick with my current decision	4	I will not change my decision at all. I will definitely stick with my current decision.
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GBF1 [Exhibit 2A: Evidence on the Relationship between

Market Share and Profitability, Market Share and Firm Survival

Group Interactive Decision; GBS; No devil's advocacy role-player present, KBI on Pricing & Market Share]

Please think for a minute or two to yourself on how you might apply the information appearing on this page in making the Pricing Decision for L-Guys. Also ask yourself: should you apply the information on making a decision that appears on this page?

- Economists frown on competitor-oriented objectives (Mueller 1992). They consider the proper objective of business to be profits, not market share.
- Anterasian and Graham (1989) examined the performance of a sample of 42 businesses drawn from a federal trade commission report. There eight manufacturing industries had experienced a boom-bust cycle from 1974 to 1977. Those firms that sought stability in sales by giving up market share during the 1974 boom in their industry achieved higher profits during the subsequent downturn.
- Studies that have used a longitudinal rather than a cross sectional approach, find a negative relationship between market share and profits. Anterasian and Graham (1989) analyzed data on 42 firms in industries that had cycles; companies that lost market share during growth periods tended to be more profitable over the cycle than firms in the same industry that gained market share.
- Tschoegl and Yu (1990), in a study of the liquor market, found that a higher market share did not help in gaining further share and did not produce stability in the firm's sales.
- Montgomery and Wernerfelt (1991) examine the performance of six large U.S. Brewers from a 1969 to 1979, a period characterized by large changes in market share; using returns on stocks, they concluded (p. 958) that gains in market share were associated with "the destruction, rather than the creation, of firm value."
- In Armstrong and Collopy (1996) follow-up study using data on firm survival rate relating to the firm objectives of the 200 firms in Lancillotti (1958) study, all for profit-oriented firms survived, while four of the six competitor-oriented companies failed. Thus, competitor-oriented firms were less likely to survive ($p = .07$ by the Fisher Exact Test).

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Exhibit 2i

Information on Setting Price

GBF2 [Group Interactive Decision; GBS; No devil's advocacy role-player present, Placebo information on Pricing Strategy]

- One of the most difficult, yet important, issues you must decide as an entrepreneur is how much to charge for your product or service. While there is no one single right way to determine your pricing strategy, fortunately there are guidelines that will help you with your decision. Here are some of the factors that you might consider.
- **Positioning**-How do you positioning your product in the market? Is pricing going to be a key part of that positioning? If you are running a discount store, you are always going to be trying to keep your prices as low as possible as (or at least lower than your competitors). On the other hand, if you are positioning your product as an exclusive luxury product, a price that is too low may actually hurt your image. The pricing has to be consistent with the positioning. People really do hold strongly to the idea that you get what you pay for.
- **Demand curves** -How will your pricing affect demand? You are going to have to do some good basic market research to find this out, even if it's informal. Get 10 people to answer a simple questionnaire, asking them, "Would you buy this product/service at X price? Y price?" For a larger venture, you will want to do something more formal, of course -- perhaps hire a market research firm. But even a sole practitioner can chart a basic curve that says that at X price, X' percentage will buy, at Y price, Y' will buy, and at Z price, Z' will buy.
- **Cost** - Calculate the fixed and variable costs associated with your product or service. How much is the "cost of goods", i.e., a cost associated with each item sold or service delivered, and how much is "fixed overhead", that is, it doesn't change unless your company changes dramatically in size? Remember that your gross margin (price minus cost of goods) has to amply cover your fixed overhead in order for you to turn a profit. Many entrepreneurs under-estimate this and it gets them into trouble.
- **Environmental factors** - Are there any legal or other constraints on pricing? For example, in some cities, towing fees from auto accidents are set at a fixed price by law. Doctors, insurance companies and Medicare will only reimburse a certain price. What possible actions might your competitors take? Will too low a price from you trigger a price war? Find out what extra factors may affect your pricing. (Allen, 2010)

Exhibit Reference

Allen, S. (2010). How much should you charge for your product or service? Retrieved from <http://entrepreneurs.about.com/od/salesmarketing/a/pricingstrategy.htm>.

In-basket C Exercise #3: RISC selection of a hotel

Sam, a highly successful International Sales Manager for RED, a chain of hair dressing stores in New Zealand and Australia, has approached you for advice. The firm RED has its annual international sales conference in three months' time. At this international sales conference which normally runs over 3 days, the Australasian top achieving sales representatives are rewarded and new products are launched. The annual RED International Sales Conference (RISC) is highly prestigious and there is already much excitement amongst the sales representatives to see who will make it through to RISC this year. This year it is planned for a venue in the Pacific Islands. RED's international sales management team organizes many functions every year. Several members of Sam's event planning team have taken business trips to assess a large number of possible hotels. The enclosed list of nine hotels is those pre-screened hotels that meet the minimum requirements to host a conference of this caliber for this number of people.

RED's president, Joe White always takes personal interest in the RISC function. Since the key focus of the coming sales year is on customer care and nurturing existing clients, she has asked Sam's team to find a venue that will demonstrate these qualities. The team has done some preliminary research and has found nine possible hotels RED have used in the past, to host the upcoming RISC function.

Sam needs to make the final decision today since many of the hotels have a minimum lead time and RED's president wishes to announce the venue and key speakers at the director meeting which is tomorrow. Once you have made your recommendation, Sam will have full authority and control over the all-inclusive budget of \$1.7m to make the decision. His decision will be final.

Sam's event planning team has, over the years of organizing the RISC function, developed a checklist of key attributes to consider. This ranked attribute list was compiled from past top achievers and RISC conference attendees' feedback forms. The factors, issues and attributes of the event and the priority weighting of each factor appear in the second column, labelled *Importance (scored out of 10 by sales staff who attended conferences in the past)* in Table 1.

Your Consulting Report to the RED international sales manager

You wish to develop a short-list of one or two hotels to consider. Second, you wish to generate one strength and one weakness for each alternative action. Finally, you want to select one of the alternatives to recommend to Sam and tell why this action is the best one for RED to take.

Your Consulting Report to the RED international sales manager of RISC

GBFI

1. One to two hotels to consider on the final short-list?

Hotel 1:	Hotel 2:
----------	----------

2. One strength and one weakness for each course of action?

Hotel 1:	Hotel 2:
Strength Hotel 1:	Strength Hotel 2:
Weakness Hotel 1:	Weakness Hotel 2:

3. Final choice of action and why it's best for RED and the RISC function?

Final choice of Hotel: (Write name of Hotel here):
Why it is the best for RED:

4. Please indicate how confident you are that your answer is the best venue for the event. Please tick ✓ your level of confidence:

1	Not very confident	2	Somewhat confident	3	Confident	4	Very confident
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5. Please indicate how likely you are to stick with your decisions, should you be asked to review them in two weeks' time. Please tick ✓ your option.

1	I am very likely to change my decision.	2	Somewhat likely to change my decision	3	I am unlikely to change my decision. I will stick with my current decision	4	I will not change my decision at all. I will definitely stick with my current decision.
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EXHIBIT 3A: SATISFICING as Decision Strategy

USEFUL RULES FOR EVALUATING HOTEL SCENARIOS

GBF1 [Group Interactive Decision; GBS; No devil's advocacy role-player present, KBI on Satisficing and Drop-Your-Tools Heuristics]

Please think for a minute or two to yourself on how you might apply the information appearing on this page in making the hotel decision.

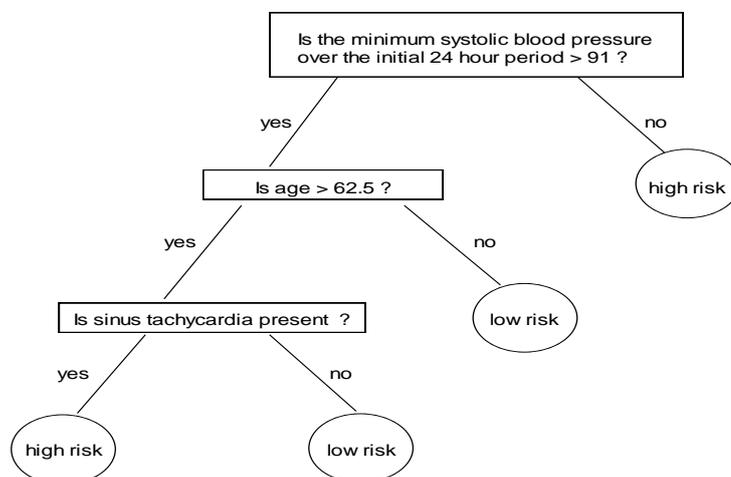
Also ask yourself: should you apply the information on making a decision that appears on this page?

This information sheet is about fast and frugal heuristics for making decisions—how they work, and when they succeed. Humans and animals make inferences about their world with limited time, knowledge, and computational power. Gigerenzer and Todd argue that models of much of human reasoning and decision making involve the use of fast and frugal heuristics that make inferences with limited time and knowledge. These heuristics do not involve much computation, and do not compute probabilities and utilities; using such heuristics results in more accurate decisions than fully rational models.

Fast and frugal heuristics: Example from the medical industry

A man is rushed to a hospital in the throes of a heart attack. The doctor needs to decide quickly whether the victim should be treated as a low risk or a high risk patient. He is at high risk if his life is truly threatened, and should receive the most expensive and detailed care. The doctor does not have the luxury of extensive deliberation: She must decide under time pressure using only the available cues, each of which is, at best, merely an uncertain predictor of the patient's risk level. At the University of California, San Diego Medical Center, as many as 19 such cues, including blood pressure and age, are measured as soon as a heart attack patient is admitted. Common sense dictates that the best way to make the decision is to look at the results of each of those measurements, rank them according to their importance, and combine them somehow into a final conclusion. Consider in contrast the simple decision tree in Figure 1-1, which was designed by Breiman and colleagues (Breiman et al., 1993) to classify heart attack patients according to risk using only three variables. If a patient has a systolic blood pressure of less than 91, he is immediately classified as high risk—no further information is gathered. If not, then the decision is left to the second cue, age. If the patient is under 62.5 years old, he is classified as low risk; if he is older, then one more cue (sinus tachycardia) is considered to classify him as high or low risk. The tree requires the doctor to answer a maximum of three yes-no questions to reach a decision rather than to measure and consider 19 predictors, letting her proceed to life-saving treatment all the sooner. And it works!

Figure 1-1: A simple decision tree for classifying incoming heart attack patients into high risk and low risk patients (adapted from Breiman et al., 1993).



This decision strategy is simple in several respects. First, the heuristic ignores the great majority of possible measured predictors. Second, the heuristic ignores quantitative information by using only yes/no answers to the three questions.

Deciding Under Constraints

Satisficing is a method for making a choice from a set of alternatives encountered sequentially when one does not know much about the possibilities ahead of time. Satisficing takes the shortcut of setting an aspiration level and ending the search for alternatives as soon as one is encountered that exceeds the aspiration level (Simon, 1956a, 1990). Satisficing is a way of making a decision about a set of alternatives that respects the limitations of human time and knowledge: it does not require finding out or guessing about all the options and consequences the future may hold, as constrained optimization does. However, some forms of satisficing can still require a large amount of deliberation on the part of the decision maker, for instance to set an appropriate aspiration level in the first place, or to calculate how a current option compares to the aspiration level (Simon, 1956b). Satisficing limit the search of objects or information using easily-computable stopping rules, and they make their choices with easily-computable decision rules.

Heuristic principles for guiding search. Decisions must be made between alternatives, and based on information about those alternatives. In different situations, may need to be found through active search. The heuristic principles for guiding search for those alternatives are what give search its direction (if it has one). For instance, search for cues can be simply random, or in order of some precomputed criterion related to their usefulness; or based on a recollection about which cues worked previously when making the same decision. The search for alternatives can similarly be random or ordered.

Heuristic principles for stopping search. In our conception of bounded rationality, the temporal limitations of the human mind (or that of any realistic decision-making agent) must be respected as much as any other constraints. This implies in particular that search for alternatives or information must be terminated at some point.

Heuristic principles for decision making. Once search has been guided to find the appropriate alternatives or information and then been stopped, a final set of heuristic principles can be called upon to make the decision or inference based on the results of the search. These principles can also be very simple and computationally bounded. For instance, a decision or inference can be based on only one or two cues or reasons, whatever the total number of cues found during search. A one-reason decision making does not need to weight or combine cues, and so no common currency between cues need be determined. Decisions can also be made through a simple elimination process, in which alternatives are thrown out by successive cues until only one final choice remains.

One of the surprising results reported in empirical studies by Gigerenzer and Todd (1999), is that simple heuristics need not always make trade-offs in accuracy or quality. These studies show that, when compared to some standard benchmark strategies, fast and frugal heuristics can be faster, more frugal, and more accurate at the same time.

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Exhibit 3(i)

Steps in Rational Decision-Making/ Weighted Priority Matrix

GBD2 [Group Interactive Decision; GBS; Devil's advocacy role-player; Weighted Priority Matrix]

- When facing two or more alternatives in solving a problem, transform the information on relative information available on each alternative to standard scores. For example, standard scores might range from 0.0 to 1.0.
- Weight the importance of each piece (cue) of information. For example, assume that you used a constant sum of ten points to apply to three cues. You can assign the ten points evenly or weigh the importance of one cue much more (e.g., 8) than the other two cues; you might assign each of the other two cues a value of 1 each - or weigh the importance of one cue as 2 other cue as zero.
- For each alternative, multiply each cue's standard score by the cues weight and sum across all the weighted cues.
- Select the alternative with the highest sum as your answer.
- **Example:** Jane is deciding on which of two Americans to hire as a project manager to work in her firm's headquarters in Germany: Linda or Tom. She wants to hire the best person for the job - the one that is going to perform the job to the highest level. Linda can read German, but has poor language speaking ability in the German language. Linda graduated from Cambridge University with honors in humanities. Linda's current job is a senior project manager at a small firm in Chicago. Tom is fluent in both reading and speaking German. Tom graduated from the University of Kentucky in the U. S. with a Master's in Business Administration. Tom's current job is a junior project manager in a large firm in Chicago. Jane selected the following cues to evaluating Linda and Tom (and assign the following importance weights to each cue: German language ability (2), University quality (1), relevancy of training to the job (3), job experience (4), and gender (0). (Jane prefers to hire a male but believes that gender is not relevant to the job.)
- Jane uses a 0.0 to 1.0 score to standardize her evaluations of Linda and Tom across the four cues (multiplies each score for each cue by the cues importance weight and sums).

<u>Cue</u>	<u>Cue Weight</u>	<u>Evaluation of Linda</u>	<u>Evaluation of Tom</u>
German language ability	2	.3 [0.6]	1.0 [2.0]
University quality	1	1.0 [1.0]	0.3 [0.3]
Relevancy of training to job	3	.5 [1.5]	0.7 [2.1]
Job experience	4	.8 [3.2]	0.4 [1.6]
Gender	0	.2 [0.0]	0.8 [0.0]
Σ TOTAL		[6.3]	[6.0]

The sum of scores for Linda and Tom are close (6.3 versus 6.0); Linda has the highest summed score. Jane selects Linda for the job. These steps in rational decision-making may be applicable to the pricing strategy problem to help you in deciding which price to set.

In-basket Task #4: Performance Management at ABCConsulting

You client is **Abe Connor, CEO of ABCConsulting**, a business consulting service with 57 consultants and 135 support and administrative staff. **Mary Smith**, National Promotions & Events Manager is normally a star performer in Abe's team at ABCConsulting. She is highly competent at running multiple promotional campaigns and projects and although she is not very well liked, is well regarded by her twelve subordinates as a hard-working and strict manager. She is seen by her colleagues as a perfectionist with a keen focus on task and delivering high quality output within tight deadlines. She is responsible for the national promotions and sponsorships of ABCConsulting services business, which amounts to approximately 24 projects with a total budget of \$850 000.

Mary was recently asked to not only organize the National Awards for Media Innovation function which is part of her normal function, but in addition present a cheque on the gala evening of the Awards function, of which the firm is the main sponsor. This presentation and executive liaison role would normally be allocated to someone more senior than Mary in ABCConsulting. Abe wanted to give her a chance to shine in the limelight and offer her a chance to demonstrate her ability to move up the ranks - one she often expresses a desire for. (In two of her previous bi-annual performance review meetings, the most recent of which was last month, she expressed a need to be promoted into higher paying and more responsible positions).

The Awards function ran smoothly and impressively as per all the promotional campaigns her team executes, but her interface with the top achievers, prize winners, and executives left much to be desired. Abe has first-hand information from a trusted friend that she was rude to the president of Media Inc., the owners and organizers of the event - and one of your most important and most valuable clients - on more than one occasion on the day of the function. She was sulking throughout the evening event function, made harsh, inappropriate remarks to clients and colleagues and was inappropriately dressed for such a glamorous function. In the words of Abe's trusted friend, "She looked like she came straight off the ladder where she was hanging the 'congratulations banner' to present the award, rather than dressed in smart evening attire, as was specified on the invitations she wrote and printed herself". Even one of her team members said, "I don't think I have ever seen her in such a foul and unaccommodating mood."

It has previously come to Abe's attention that she is first in the office in the mornings and that she never leaves the office before 7 pm and is very often the last person to leave the building. Although she has gained quite a bit of weight, she makes no time for tea or lunch and a senior colleague still sees her running at 6am every morning on his daily jogs. During her performance review she stated that she is having some personal problems at home and that a promotion "would be just the thing to make me feel valued and appreciated." Abe is concerned about the impact Mary's behavior might have on the reputation and image of ABCConsulting. There is some rumor that Media Inc. is considering taking their substantial business to your main competitor. Which of the following actions should Abe take?

- A. Call Mary and her team in immediately to express his discontent with Mary's type of behavior and warn them all that a repeat performance will lead to a reduction in status or bonus/pay or both and that such behavior at corporate events will not be tolerated. Express the importance of key clients such as Media Inc. to the survival of ABCConsulting

and how one event like this might cost you years of good work and hundreds of dollars in real consulting work.

- B. Wait for the next performance review, which is only two months away, to address the matter on a formal basis. Ensure that Abe build new criteria into the performance review document for all members of the national promotions business unit. Suggest that Abe phone the president of Media Inc. immediately to apologize and to smooth over any feathers that may have been ruffled. Advise Abe to go out of his way to rebuild the relationship and retain this key client.
- C. Suggest to Abe to find Mary immediately and ask her for her version of the story so that Abe can give her a warning about future non-conformance actions he will take. Give her a formal warning so that he has followed procedure in case there is a repeat performance and he wishes to fire her after the next infringement. Advise Abe to call Media Inc. to resolve any residual unhappiness.
- D. Suggest that Abe call his Media Inc. client to gather more information and to select one of two options. If the president of Media Inc. is seriously considering taking their consulting business away from ABConsulting, offer to fire Mary in order to retain the business of this key client. If the Media Inc. client is not too mad, suggest that Abe offers his personal apologies and let the issue rest. Suggest that Abe does nothing further after dealing with Media Inc.
- E. You advise Abe to use positive reinforcement. You suggest to Abe to call Mary into his office, congratulate her on another successful event, but explain why she needs to call your Media Inc. to apologize for her behavior. Abe should explain that he relies on her and trust her to follow up with Media Inc.'s president and smooth over any problems. Give her a few pointers on how to deal with irate clients and difficult staff. Ask for feedback after the call.

Your consulting report to Abe at ABCConsulting:

CODE

1. Which course of action to you suggest do Abe take, please tick (✓) one choice:

Option	Suggestion to Abe of ABCConsulting	Tick your selection
A	Take immediate action and express your discontent to the whole team.	
B	Wait to address the issue with the team. Call the client immediately and rebuild the relationship with the key client	
C	Call Mary in to address the non-conformance immediately. Call the client immediately and rebuild the relationship with the key client.	
D	Call Media Inc and either fire Mary or let the issue rest if the client is not all that upset.	
E	Congratulate Mary on a successful function. Direct her to call Media Inc. Give her some pointers. Ask for feedback	

2. Please provide one to three reasons for your choice here: (Use the back of the sheet if necessary)

Reason 1:
Reason 2:
Reason 3:

3. Please indicate how confident you is that your answer is the correct answer. Please tick ✓ your level of confidence:

1	Not very confident	2	Somewhat confident	3	Confident	4	Very confident
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4. Please indicate how likely you are to stick with your decisions, should you be asked to review them in two weeks' time. Please tick ✓ your option:

1	Very likely to change my decision	2	Somewhat likely to change my decision	3	I am unlikely to change my decision. I will stick with my current decision	4	I will not change my decision at all. I will definitely stick with my current decision.
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Exhibit 4A

Decision Aid: Information on Retaining Key Clients & Key Staff

GBF1 [Group Interactive Decision; GBS; No devil's advocacy role-player present, KBI on Service Recovery, Retention of Key Clients AND Key Staff.]

Please think for a minute or two to yourself on how you might apply the information appearing on this page in making the ABConsulting decision.

Also ask yourself: should you apply the information on making a decision that appears on this page?

- In the service industry, an average of 95% of business comes from 15% of clients. Retaining key clients should be the focus of every manager in the business. Most industries quote the Pareto principle, i.e. 80% of business comes from 20% of clients. This 20% of clients are called key clients.
- Key clients of service organizations periodically review and change their advertising; marketing and corporate communications services business models and supplier relationships. If service organizations are unable to remain competitive or retain key clients, their business and financial results may be materially adversely affected.
- The success of acquiring and retaining clients depends largely on organizations' ability to manage client relationships and retention of key personnel to manage those relationships.
- Organizations' ability to attract and retain key personnel is an important aspect of their competitiveness since employees and key clients are the two most important assets of any business. If unable to attract and retain key personnel, the organization's ability to provide services in the manner customers expect may be adversely affected, which could harm their reputation and result in a loss of clients, which could have a material adverse effect on results of operations and the overall financial condition.
- To develop strong business relationships, key service personnel need to have the interpersonal and relationship-building skills to attract and retain key clients. This is an example of a valuable relational asset as well as a potential source of competitive advantage. Organizations should invest time and money to develop these competencies.
- In many organizations, the most prominent and expensive resource is their employees. As a result, a lot of time is spent on (a) creating processes and conditions that drive and motivate employees; and (b) developing employee competencies and skills to perform effectively and productively in the workplace.
- Starting with the issue of motivation, it is fair to say that this is not an easy task since different drivers motivate different people. The reason: motivation develops internally from a personal desire to achieve goals that are important both to the individual and to the organization. Motivation is the force that prompts them to take action. If a leader or manager is having trouble getting someone to achieve the organization's goals, they are probably failing to understand what the employee's personal goals are.
- Frederick Herzberg, research psychologist and author of "One More Time, How Do You Motivate Employees?" found that rather than working purely for external rewards such as money, people are motivated by challenges, stimulating work and increasing responsibility. In other words, people become frustrated when their work offers little or no opportunity for growth and achievement. While pay, fringe benefits, and working conditions are important, research has shown that absence of these factors

produces a lack of motivation, but their presence has no long-range motivational effects. Long-range motivational factors are recognition of a job well done, sense of achievement, growth, participation, challenge, and identification with the company's goals and vision.

- Compassion is caring and empathy in action. It is the ability and willingness to act on feelings of care and empathy for others' feelings and experiences. According to leadership guru Richard Boyatzis, leading with compassion can favorably affect the bottom line. Important organizational results are achieved through compassion: "development of more people as leaders' higher commitment, responsiveness to customers, and a sense of share community and social responsibility" (Resonant Leadership, p.185)
- They also argue that CRM is particularly concerned with singling out customers who are of strategic importance to the company, having the greatest customer lifetime value. It is with these customers that the company should build strong, interactive and collaborative relationships in order to be able to provide them with personalized offerings, thus enhancing company profitability (p.14).
- Just as in literature concerning CRM, people are seen as a key success factor in Key Account Management (KAM). In Zupancic's (2008) framework on the operational KAM level, it is of importance to determine the competencies needed to best serve each key account and to nominate the people in the key account team, as well as analyze the individual needs of the people already involved in a particular relationship. Meanwhile, on the corporate KAM level it is crucial to acknowledge the pivotal role of outstanding staff in the success of KAM and continuously analyze their competencies, as well as provide the staff involved in KAM with training and development programmes. It is also within the realm of corporate KAM to appoint key account managers from within the organization. (Zupancic, 2008. p.31)
- The findings of Brady (2004) and Nätti et al. (2006) highlight the importance of capable staff as a key success factor in KAM.

Exhibit References:

Bianchi, Constanza C. (2009) How service companies from emerging markets overcome internationalization barriers: evidence from Chilean services firms. In: 2009 *Strategic Management in Latin America Conference*, January 5-7, 2009, Sao Paulo, Brazil.

Salojärvi, H. Sainio, L.M., Tarkiainen, A.(2010). Organizational factors enhancing customer knowledge utilization in the management of key account relationships. *Industrial Marketing Management*, 39 (8), p. 1398.

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<https://publications.theseus.fi/bitstream/handle/10024/28683/Thesis%20S.Nordberg.pdf?sequence=1>.

Exhibit 4(i)**Information on Retaining Key Clients**

GBF2 [Group Interactive Decision; GBS; No devil's advocacy role-player present; Nocebo information on Key Clients.]

Please think for a minute or two to yourself on how you might apply the information appearing on this page in making the ABConsulting decision.

Also ask yourself: should you apply the information on making a decision that appears on this page?

- In the service industry, an average of 95% of business comes from 15% of clients. Retaining key clients should be the focus of every manager in the business. Most industries quote the Pareto principle, i.e. 80% of business comes from 20% of clients. These 20% of clients are called key clients.
- Key clients of service organizations periodically review and change their advertising; marketing and corporate communications services business models and supplier relationships. If service organizations are unable to remain competitive or retain key clients, their business and financial results may be materially adversely affected.
- The market place for service businesses is highly competitive. Key competitive considerations for retaining existing clients and winning new business include the ability to develop creative solutions that meet clients' needs, the quality and effectiveness of the services offered the ability to efficiently serve clients, particularly large key clients, on a broad geographic basis.
- While client relationships may be long-standing, companies put their advertising, marketing and corporate communications services business up for competitive review from time to time. The competitive landscape changes often because of these reviews.
- To the extent that organizations are not able to remain competitive, their revenue may be adversely affected, which could then affect their results of operations and financial condition.
- "To develop strong business to business relationships, key service personnel need to have the interpersonal and relationship building skills to attract and retain key clients. This is an example of a valuable relational asset as well as a potential source of competitive advantage."

Exhibit References

Bianchi, Constanza C. (2009) How service companies from emerging markets overcome internationalization barriers: evidence from Chilean services firms. In: 2009 *Strategic Management in Latin America Conference*, January 5-7, 2009, Sao Paulo, Brazil.

Salojärvi, H. Sainio, L.M., Tarkiainen, A.(2010). Organizational factors enhancing customer knowledge utilization in the management of key account relationships. *Industrial Marketing Management*, 39 (8), p. 1398.