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(54) Title: AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND AL-
LOCATION ACROSS SPENDING CATEGORIES

(57) Abstract: A facility for automatically prescribing, for a distinguished offering, an allocation of resources to a total marketing
budget and/or individual marketing activities is described.



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AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR
MARKETING AND SALES RESOURCES AND ALLOCATION
ACROSS SPENDING CATEGORIES

CROSS REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of U.S. Provisional Application No. 60/991,147, filed November 30, 2007, and entitled "AUTOMATICALLY PRESCRIBING TOTAL MARKETING BUDGET AND ALLOCATION ACROSS MARKETING CATEGORIES," which is incorporated herein in its entirety by reference.

TECHNICAL FIELD

[0002] The described technology is directed to the field of automated decision support tools, and, more particularly, to the field of automated budgeting tools.

BACKGROUND

[0003] Marketing communication ("marketing") is the process by which the sellers of a product or a service—i.e., an "offering"—educate potential purchasers about the offering. Marketing is often a major expense for sellers, and is often made of a large number of components or categories, such as a variety of different advertising media and/or outlets, as well as other marketing techniques. Despite the complexity involved in developing a marketing budget attributing a level of spending to each of a number of components, few useful automated decision support tools exists, making it common to perform this activity manually, relying on subjective conclusions, and in many cases producing disadvantageous results.

[0004] In the few cases where useful decision support tools exist, it is typically necessary for the tool's user to provide large quantities of data about past allocations of marketing resources to the subject offering, and the results that that they produced.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] Figure 1 is a high-level data flow diagram showing data flow within a typical arrangement of components used to provide the facility.

[0006] Figure 2 is a block diagram showing some of the components typically incorporated in at least some of the computer systems and other devices on which the facility executes.

[0007] Figure 3 is a table drawing showing sample contents of a library of historical marketing efforts.

[0008] Figure 4 is a display diagram showing a sign-in page used by the facility to limit access to the facility to authorized users.

[0009] Figure 5 is a flow diagram showing a page display generated by the facility in a view/edit mode.

[0010] Figures 6-9 show displays presented by the facility in order to solicit information about the subject offering for which an overall marketing budget and its distribution are to be prescribed by the facility.

[0011] Figure 10 is a display diagram showing a result navigation display presented by the facility after collecting information about the subject offering to permit the user to select a form of analysis for reviewing results.

[0012] Figure 11 is a display diagram showing a display presented by the facility to convey the optimal total marketing budget that the facility has is determined for the subject offering.

[0013] Figure 12 is a display presented by the facility to show spending mix information. The display includes an overall budget prescribed by the facility.

[0014] Figure 13 is a process diagram that describes collecting additional offering attribute information from the user.

[0015] Figure 14 is a process diagram showing the derivation of three derived measures for the subject offering: cognition, affect, and experience.

[0016] Figure 15 is a table diagram showing sets of marketing activity allocations, each for a different combination of the three derived attributes shown in Figure 14.

[0017] Figure 16 is a process diagram showing how the initial allocation specified by the table in Figure 15 should be adjusted for a number of special conditions.

[0018] Figure 17 is a process diagram showing how the facility determines dollar amount for spending on each marketing activity.

[0019] Figure 18 is a process diagram showing the final adjustment to the results shown in Figure 17.

[0020] Figure 19 is a display diagram showing a display presented by the facility to portray resource allocation prescriptions made by the facility with respect to a number of related subject offerings, such as the same product packaged in three different forms.

[0021] Figures 20-49 show one or more sample implementations of the facility reflecting various embodiments.

[0022] Figures 50 and 51 show sample results produced by the facility in some embodiments.

DETAILED DESCRIPTION

[0023] The inventors have recognized that, in many cases, such as in the case of a new offering, the large quantities of data about past allocations of marketing resources to the subject offering and the results that they produced that a user would have to provide to a conventional decision support tool is not available. The inventors have further recognized that, even where such data is available, it can be inconvenient to access this data and provide it to the decision support tool.

[0024] Accordingly, a tool that automatically prescribed an advantageous allocation of funds or other resources to an offering and its various components without requiring the user to provide historical performance data for the offering would have significant utility.

[0025] A software facility that uses a qualitative description of a subject offering to automatically prescribe both (1) a total budget for marketing and sales resources for a subject offering and (2) an allocation of that total budget over multiple spending categories -- also referred to as "activities" -- in a manner intended to optimize a business outcome such as profit for the subject offering based on experimentally-obtained econometric data ("the facility") is provided.

[0026] In an initialization phase, the facility considers data about historical marketing efforts for various offerings that have no necessary relationship to the marketing effort for the subject offering. The data reflects, for each such effort: (1) characteristics of the marketed offering; (2) total marketing budget; (3) allocation among marketing activities; and (4) business results. This data can be obtained in a variety of ways, such as by directly conducting marketing studies, harvesting from academic publications, etc.

[0027] The facility uses this data to create resources adapted to the facility's objectives. First, the facility calculates an average elasticity measure for total marketing budget across all of the historical marketing efforts that predicts the impact on business outcome of allocating a particular level of resources to total marketing budget. Second, the facility derives a number of adjustment factors for the average elasticity measure for total marketing budget that specify how much the average elasticity measure for total marketing budget is to be increased or decreased to reflect particular characteristics of the historical marketing efforts. Third, for the historical marketing efforts of each of a number groups of qualitatively similar offerings, the facility derives per-activity elasticity measures indicating the extent to which each marketing activity impacted business outcome for marketing efforts for the group.

[0028] The facility uses interviewing techniques to solicit a qualitative description of the subject offering from user. The facility uses portions of the solicited qualitative description to identify adjustment factors to apply to the average elasticity measure for total marketing budget. The facility uses a version of average elasticity measure for total marketing budget adjusted by the identified adjustment factors to identify an ideal total marketing budget expected to produce the highest level of profit for the subject offering, or to maximize some other objective specified by the user.

[0029] After identifying the ideal total marketing budget, the facility uses the solicited qualitative description of the subject offering to determine which of the groups of other offerings the subject offering most closely matches, and derives a set of ideal marketing activity allocations from the set of per-activity elasticity measures derived for that group.

[0030] In this manner, the facility automatically prescribes a total marketing resource allocation and distribution for the subject offering without requiring the user to provide historical performance data for the subject offering.

[0031] The sales or market response curves determined by the facility predict business outcomes as mathematical functions of various resource drivers:

$$\text{Sales} = F(\text{Any Set of Driver Variables}),$$

where F denotes a statistical function with the proper economic characteristics of diminishing returns

[0032] Further, since this relationship is based on data—either time series, cross-section, or both time series and cross-section—the method inherently yields direct, indirect, and interaction effects for the underlying conditions.

[0033] These effects describe how sales responds to changes in each of the underlying driver variables and data structures. Often, these response effects are known as "lift factors," one proper subset of which are elasticities. As a special subset or case, these methods allow reading any on-off condition for the cross-sections or time-series.

[0034] There are various classes of statistical functions which are appropriate for determining and applying different types of lift factors. In some embodiments, the facility uses a class known as multiplicative and log log (using natural logarithms) and point estimates of the lift factors.

[0035] In certain situations, the facility uses methods that apply to categorical driver data and categorical outcomes. These include the classes of probabilistic lift factors known as multinomial logit, logit, probit, non-parametric, or hazard methods.

[0036] In various embodiments, the facility uses a variety of types of lift factors determined in a variety of ways. Statements about "elasticity" herein extend to lift factors of a variety of other types.

[0037] Figure 1 is a high-level data flow diagram showing data flow within a typical arrangement of components used to provide the facility. A number of web client computer systems 110 that are under user control generate and send page view requests 131 to a logical web server 100 via a network such as the Internet 120. These requests typically include page view requests and other requests of various types relating to receiving information about a subject offering and providing information about prescribed total marketing budget and its distribution. Within the web server, these requests may either all be routed to a single web server computer system, or may be loaded-balanced among a number of web server computer systems. The web server typically replies to each with a served page 132.

[0038] While various embodiments are described in terms of the environment described above, those skilled in the art will appreciate that the facility may be implemented in a variety of other environments including a single, monolithic computer system, as well as various other combinations of computer systems or similar devices connected in various ways. In various embodiments, a variety of computing systems or other different client devices may be used in place of the web client computer systems, such as mobile phones, personal digital assistants, televisions, cameras, etc.

[0039] Figure 2 is a block diagram showing some of the components typically incorporated in at least some of the computer systems and other devices on which the facility executes. These computer systems and devices 200 may include one or more central processing units ("CPUs") 201 for executing computer programs; a computer memory 202 for storing programs and data while they are being used; a persistent storage device 203, such as a hard drive for persistently storing programs and data; a computer-readable media drive 204, such as a CD-ROM drive, for reading programs and data stored on a computer-readable medium; and a network connection 205 for connecting the computer system to other computer systems, such as via the Internet. While computer systems configured as described above are typically used to support the operation of the facility, those skilled in the art will appreciate that the facility may

be implemented using devices of various types and configurations, and having various components.

[0040] Figure 3 is a table drawing showing sample contents of a library of historical marketing efforts. The library 300 is made up of entries, such as entries 310, 320, and 330, each corresponding to a set of one or more historical marketing efforts each sharing a similar context. Each entry contains a number of context attribute values that hold true for the historical marketing efforts corresponding to the entry, including values for a new product attribute 311, a cognition score attribute 312, an affect score attribute 313, an experience score 314, a message clarity score 315, and a message persuasiveness score 316. Each entry further contains values for the following statistical measures for the historical marketing efforts corresponding to the entry: log of the outcome 351, base 352, log of outcome with a lag factor 353, log of external 354, log of relative price 355, and log of relative distribution 356. Each entry further contains logs of advertising efficiency values for each of a number of categories, including TV 361, print 362, radio 363, outdoor 364, Internet search 365, Internet query 366, Hispanic 367, direct 368, events 369, sponsorship 370, and other 371.

[0041] Figure 4 is a display diagram showing a sign-in page used by the facility to limit access to the facility to authorized users. A user enters his or her email address into field 401, his or her password into field 402, and selects a signing control 403. If the user has trouble signing in in this manner, the user selects control 411. If the user does not yet have an account, the user selects control 421 in order to create a new account.

[0042] Figure 5 is a flow diagram showing a page display generated by the facility in a view/edit mode. The display lists a number of scenarios 501-506, each corresponding to an existing offering prescription generated for the user, or generated for an organization with which the user is associated. For each scenario, the display includes the name of the scenario 511, a description of the scenario 512, a date 513 on which the scenario was created, and a status of the scenario. The user may select any of the scenarios, such as by selecting its name, or its status, to obtain more information about the scenario. The display also includes a tab area 550 that the user may use in order to navigate different modes of the facility. In addition to tab 552 for the present

view/edit mode, the tab area includes a tab 551 for a create mode, a tab 553 for a compare mode, a tab 554 for a send mode, and a tab 555 for a delete mode. The user can select any of these tabs in order to activate the corresponding mode.

[0043] Figures 6-9 show displays presented by the facility in order to solicit information about the subject offering for which an overall marketing budget and its distribution are to be prescribed by the facility. Figure 6 shows controls for entering values for the following attributes: current revenue 601, current annual marketing spending 602, anticipated growth rate for the next year in the industry as a whole 603, gross profit expressed as a percentage of revenue 604, and market share expressed as a percentage of dollar 605. The display further includes a save control 698 that the user can select in order to save the attribute values that they have entered, and a continue control 699 that the user may select in order to proceed to the next display for entering the context attribute values.

[0044] Figure 7 is a further display presented by the facility to solicit attribute values for the subject offering. It includes controls for inputting values for the following context attributes: industry newness 701, market newness 702, channel newness 703, and marketing innovation 704.

[0045] Figure 8 is a further display presented by the facility in order to solicit attribute values. It has controls that the user may use to enter the values for the following context attributes: newness of marketing information content 801, company position in the market 802, market share 803, and pricing strategy 804.

[0046] Figure 9 is a further display presented by the facility in order to solicit attribute values. It contains a control 901 that the user may use to determine whether customer segment detail will be included. The display further contains charts 910 and 920 for specifying values of additional context attributes. Chart 910 can be used by the user to simultaneously specify values for the consistency and clarity of branding messaging and positioning efforts by the company responsible for the subject offering. In order to use chart 910, the user selects a single cell in the grid included in the chart corresponding to appropriate values of both the consistency and clarity attributes.

Section 920 is similar, enabling the user to simultaneously select appropriate values for the persuasiveness and likeability of the company's advertising.

[0047] Figure 10 is a display diagram showing a result navigation display presented by the facility after collecting information about the subject offering to permit the user to select a form of analysis for reviewing results. The display includes a control 1001 that the user may select in order to review market share information relating to the result, a control 1002 that the user may select in order to review spending mix information relating to the result, and a control 1003 that the user may select in order to review profit and loss information relating to the result.

[0048] Figure 11 is a display diagram showing a display presented by the facility to convey the optimal total marketing budget that the facility has determined for the subject offering. The display includes a graph 1110 showing two curves: revenue with respect to total marketing budget (or "marketing spend") 1120 and profit (i.e., "marketing contribution after cost") with respect to total marketing budget 1130. The facility has identified point 1131 as the peak of the profit curve 1130 and has therefore identified the corresponding level of marketing spend, \$100, as the optimal marketing spend. The height of point 1131 shows the expected level of profit that would be produced by this marketing spend, and the height of point 1121 shows the expected level of total revenue that would be expected at this marketing spend. Table 1150 provides additional information about the optimal marketing spend and its calculation. The table shows, for each of current marketing spend 1161, ideal marketing spend 1162, and delta between these two 1163: revenue 1151 projected for this level of marketing spend; costs of goods and services 1152 anticipated to be incurred at this level of marketing spend; gross margin 1153 to be procured at this level of marketing spend; the marketing spend 1154; and the marketing contribution after cost 1155 expected at this level of marketing spend.

[0049] In order to define the profit curve and identify the total marketing budget level at which it reaches its peak, the facility first determines a total marketing budget elasticity appropriate for the subject offering. This elasticity value falls in a range between .01 and .30, and is overridden to remain within this range. The facility calculates the elasticity by adjusting an initial elasticity value, such as .10 or .11, in

accordance with a number of adjustment factors each tied to a particular attribute value for the subject offering. Sample values for these adjustment factors are shown below in Table 1.

	Industry Newness	Marketing Innovation	New Information	Market Share	Advertising Quality
High	.05	.1	.05	-.03	.04
Medium	0	0	0	0	0
Low	-.02	-.03	-.02	.02	-.03

Table 1

The industry newness column corresponds to control 701 shown in Figure 7. For example, if the top check box in control 701 is checked, then the facility selects the adjustment factor .05 from the industry newness column; if either of the middle two boxes in control 701 are checked, then the facility selects the adjustment factor 0 from the industry newness column; and if the bottom checkbox in control 701 is checked, then the facility selects the adjustment factor -.02 from the industry newness column. Similarly, the marketing innovation column corresponds to control 704 shown in Figure 7, the new information column corresponds to control 801 shown in Figure 8, and the market share column corresponds to control 803 shown in Figure 8. The advertising quality column corresponds to charts 910 and 920 shown in Figure 9. In particular, the sum of the positions of the cells selected in the two graphs relative to the lower left-hand corner of each graph is used to determine a high, medium, or low level of advertising quality.

[0050] The facility then uses the adjusted total marketing budget elasticity to determine the level of total marketing budget at which the maximum profit occurs, as is discussed in detail below in Table 2.

Definitions:

Sales = S

Base = β

Marketing Spend = M

Elasticity = α

Cost of Goods Sold (COGS) = C

Profit = P (P is a function of S, C, M, as defined in equation 2 below)

Fundamental equation relating Sales to Marketing (alpha and beta will be supplied):

$$\text{Equation (1): } S = \beta * M^{\alpha}$$

Equation relating Sales to Profits (C will be known); the facility substitutes for Sales in equation (1) above and sets the program to maximize profits for a given alpha and beta:

$$\text{Equation (2): } P = [S * (1 - C) - M]$$

$$\text{Solve Equation (2) for Sales: } \frac{(P + M)}{(1 - C)} = S$$

$$\text{Substitute for S in Fundamental Equation: } \frac{(P + M)}{(1 - C)} = \beta * M^{\alpha}$$

Solve for P as a function of M, C, alpha and beta to obtain P as a function of M:

$$P = [\beta * M^{\alpha} * (1 - C)] - M$$

$$\text{Take derivatives: } \frac{dP}{dM} = [(1 - C) \beta \alpha] * M^{\alpha-1} - 1$$

$$\text{Set to zero to give local inflection point: } 1 = [(1 - C) \beta \alpha] * M^{\alpha-1}$$

$$\text{Solve for M: } M = \left(\frac{1}{[(1 - C) \beta \alpha]} \right)^{\frac{1}{\alpha-1}}$$

Check sign of second derivative (to see that it is a max not a min):

$$[(1 - C) \beta \alpha (\alpha - 1)] * M^{\alpha-2} < 0 \quad ?$$

Table 2

[0051] Figure 12 is a display presented by the facility to show spending mix information. The display includes an overall budget 1201 prescribed by the facility.

The user may edit this budget if desired to see the effect on distribution information shown below. The display also includes controls 1202 and 1203 that the user may use to identify special issues relating to the prescription of the marketing budget. The display further includes a table 1210 showing various information for each of a number of marketing activities. Each row 1211-1222 identifies a different marketing activity. Each row is further divided into the following columns: current percentage allocation 1204, ideal percentage allocation 1205, dollar allocation to brand in thousands 1206, dollar allocation to product in thousands 1207, and dollar difference in thousands between current and ideal. For example, from row 1214, it can be seen that the facility is prescribing a reduction in allocation for print advertising from 15% to 10%, \$3.3 million of which would be spent on print advertising for the brand and \$2.2 million of which would be spent on print advertising for the product, and that the current allocation to print marketing is \$1.85 million greater than the ideal allocation. The display further includes a section 1230 that the user may use to customize a bar chart report to include or exclude any of the budget and marketing activities. It can be seen that the user has selected check boxes 1231-1233, causing sections 1250, 1260, and 1270 to be added to the report containing bar graphs for the TV, radio, and print marketing activities. In section 1250 for the TV marketing activity contains bar 1252 for the current percentage allocation to national TV, bar 1253 for the current percentage allocation to cable TV, bar 1257 for the ideal percentage allocation to national TV, and bar 1258 for the ideal percentage allocation for cable TV. The other report sections are similar.

[0052] Figures 13-18 describe the process by which the facility determines the activity distribution shown in Figure 12. Figure 13 is a process diagram that describes collecting additional offering attribute information from the user. In some embodiments, this additional attribute information is obtained from the user using a user interface that is similar in design to that shown in Figures 6-9. Figure 13 shows a number of attributes 1300 for which values are solicited from the user for the subject offering.

[0053] Figure 14 is a process diagram showing the derivation of three derived measures for the subject offering: cognition, affect, and experience. The values for

these derived measures are derived based upon the value of attributes shown in Figure 13 provided by the user for the subject offering.

[0054] Figure 15 is a table diagram showing sets of marketing activity allocations, each for a different combination of the three derived attributes shown in Figure 14. For example, Figure 15 indicates that, for subject offerings assigned a high cognition score and medium affects score should be assigned marketing resources in the following percentages: TV 44%, print magazines 12%, print newspapers 0%, radio 5%, outdoor 0%, internet search 10%, internet ad words 5%, direct marketing 12%, sponsorships/events 7%, PR/other 5%, and street 0%. Each of these nine groups of allocations is based on the relative activity elasticities, like those shown in Figure 3, grouped by the cognition and affect scores indicated for the groups of historical marketing efforts contained in the library.

[0055] Figure 16 is a process diagram showing how the initial allocation specified by the table in Figure 15 should be adjusted for a number of special conditions 1600.

[0056] Figure 17 is a process diagram showing how the facility determines dollar amount for spending on each marketing activity. The process 1700 takes the size of target audience specified by the user and divides by affective percentage of target to obtain a purchased reach – that is, the number of users to whom marketing messages will be presented. This number is multiplied by the adjusted allocation percentage to obtain a frequency per customer which is then multiplied by a number of purchase cycles per year and cost per impression to obtain estimated spending for each activity.

[0057] Figure 18 is a process diagram showing the final adjustment to the results shown in Figure 17. Process 1800 specifies scaling the target audience up or down to match the total marketing budget determined by the facility for the subject offering.

[0058] Figure 19 is a display diagram showing a display presented by the facility to portray resource allocation prescriptions made by the facility with respect to a number of related subject offerings, such as the same product packaged in three different forms. The display includes a chart 1910 that graphically depicts each of the related subject offerings, pack A, pack B, and pack C, each with a circle. The position of the center of the circle indicates the current and ideal total marketing budget allocated to

the offering, such that each circle's distance and direction from a 45° line 1920 indicates whether marketing spending should be increased or decreased for the offering and by how much. For example, the fact that the circle 1911 for pack A is above and to the left of the 45° line indicates that marketing spending should be increased for pack A. Further, the diameter and/or area of each circle reflects the total profit attributable to the corresponding subject offering assuming that the ideal total marketing budget specified by the facility for that offering is adopted. The display also includes a section 1930 containing a bar graph showing market share and volume, both current and ideal, for each related subject offering. The display also includes a section 1940 showing information similar to that shown in Section 1150 of Figure 11.

[0059]

[0060] Sample implementation:

[0061] Figures 20-49 show one or more sample implementations of the facility, discussed below.

[0062] Compass Purpose & Scope

[0063] Compass is an online based application that allows Marketing Executives to assess what their ideal Marketing Communications budget, spend and media allocation is as compared to their current spend. The marketing professional can see how much they would have to spend to optimize both their gross profit or to grow their business.

[0064] In order to generate the recommendations, the Compass application requires that a user go through an extensive questionnaire about their business, brand, products and customers. Based on the answers the user supplies, Compass will then recommend the ideal way the user should be spending their media budget.

[0065] The application will be targeted at both single company users and agency users. Depending on the type of account that is purchased, either an "Agency version" or "Consumer version" will be presented when a user logs in.

[0066] Ultimately, the Compass application will have full API support so that a customer can either integrate the functionality into a custom interface that the customer

hosts, or they can integrate existing products and relevant data into the Compass application.

[0067]

[0068] Compass Business Rules

[0069] 1. Compass must have API that allows a user to build a custom front-end that can access and utilize the Compass back-end functionality.

[0070] 2. Must have an administrative shell that allows an admin user to create sub-accounts with defined permission levels.

[0071] 3. Compass must retaining and leverage information that is entered into it, by industry type and by user type (or by any other category)

[0072] 4. Compass must have a co-brandable interface

[0073] 5. Compass must have the ability to bring in relevant third party data, which may be applied to results math or used for comparison to Compass recommended spend and media allocations.

[0074]

[0075] 1. Description of User Interface:

[0076] 1.1. Registration and Login: Users must contract with the provider and be manually allowed to register. A user's email address will be "accepted" only when valid contact is in place. Main account user can add accounts on their own. When account is created, the new account email will be delivered with login details for that user. A registered user can login as shown in Figure 20.

[0077] 1.2. Welcome Page: A welcome page is displayed as shown in Figure 21 when a user logs in.

[0078] 1.3. Dashboard: The user can navigate from the welcome page to a dashboard as shown in Figure 22.

[0079] 1.4. Wizard: The wizard is a questionnaire that a user must complete in order to get recommended media allocations and budgets from Compass. The questionnaire is divided into four sections: Questions about the user's company,

customers, products or services and their media and advertising. Each section must be completed in order to generate correct allocations.

[0080] 1.4.1. Wizard Math Calculations: Wizard uses elasticities to determine the optimal spend amounts for that user. It multiplies elasticities based on the type of answers the user selects as they complete the Wizard to come up with the value that will be applied to results recommendations.

[0081] 1.4.1.1. Starting base value is .05.

[0082] 1.4.1.2. Some questions have elasticities. The questions that do have elasticities are multiplied by the base value. The number is multiplied by the new elasticity as values are assigned, in the sequential order that the questions are asked.

[0083] 1.4.2. Section 1: Your Company

[0084] 1.4.2.1. Your Company Type and Target: Figure 23 shows a page of the wizard for entering the type of the user's company, and its primary market. In some embodiments, a Why Compass button: displayed on every slide, as shown in Figure 23. When this button is clicked, a pop-up such as the pop-up shown in Figure 24 is triggered. The user may close this pop-up by clicking the "x"

[0085] 1.4.2.1.1. Question 1: Type of Business: User must select the type of business they are in.

[0086] 1.4.2.1.1.1. Industries list available: <User may select one choice by clicking the industry to highlight it.>

[0087] • DCC Demo (temporary industry for purposed of Google demo)

[0088] • Retail (Grocery)

[0089] • Packaged Goods

[0090] • Automotive

[0091] • eCommerce/Online Retail

[0092] • Financial services

[0093] • Financial Services - Retail

- [0094]** • Entertainment
- [0095]** • Consumer Technology
- [0096]** • Business Technology
- [0097]** • Healthcare
- [0098]** • Travel and Leisure
- [0099]** • Government/Military
- [00100]** • Telecommunications
- [00101]** • Non-profit
- [00102]** • Real Estate
- [00103]** 1.4.2.1.1.2. Each type of business will draw from a table of media elasticities unique to that industry. The table that documents elasticities for each is available in Appendix B. Document in named AppendixB-MasterMediaElasticityTable_dcc_mh_v4_nov24.xls.
- [00104]** 1.4.2.1.2. Question 2: Who do you primarily sell to?
- [00105]** 1.4.2.1.2.1. User may select from dropdown:
- [00106]** 1.1.1.1..1..1. Consumers
- [00107]** 1.1.1.1..1..2. Businesses
- [00108]** 1.1.1.1..1..3. Both
- [00109]** 1.4.2.1.2.2. Default: Consumers
- [00110]** 1.4.2.1.2.3. Elasticities: 1.2, 0.8, 1.0
- [00111]** 1.4.2.1.2.4. The answer to this question will determine which "Target Market" questions are asked on Slide 4.
- [00112]** 1.4.2.1.3. Next slide prompt (Continue): User may select the Continue button or click on the name of the next slide in the Left Navigation.
- [00113]** 1.4.2.2. Revenue & Spending: Figure 25 shows a page of the wizard for entering the type of the user's company, and its primary market.

- [00114]** 1.4.2.2.1. Question 3: In the last 12 months, what was your revenue?
- [00115]** 1.4.2.2.1.1. User must highlight number and retype entire number to enter.
- [00116]** 1.4.2.2.1.2. Value range: \$1-9,999,999,999
- [00117]** 1.4.2.2.1.3. Default value is \$100,000
- [00118]** 1.4.2.2.2. Question 4: In these same 12 months, what percentage of your revenue have you spent on MarCom?
- [00119]** 1.4.2.2.2.1. User may enter a percentage by highlighting number and typing in new number
- [00120]** 1.4.2.2.2.2. User may select a number by sliding the "slider" from left to right
- [00121]** 1.4.2.2.2.3. User may enter a dollar amount in the text box below percentage box.
- [00122]** 1.4.2.2.2.4. All 3 inputs are linked and all move when one is moved.
- [00123]** 1.4.2.2.2.5. Value range is 1-100%
- [00124]** 1.4.2.2.2.6. Notification: textbox outline will turn red if user selects over 20%.
- [00125]** 1.4.2.2.2.7. Default value 1%/\$1,000
- [00126]** 1.4.2.2.3. Question 5: What is your gross margin?
- [00127]** 1.4.2.2.3.1. User may enter percentage by highlighting number and typing in new number.
- [00128]** 1.4.2.2.3.2. User may select percentage by sliding "slider" from left to right.
- [00129]** 1.4.2.2.3.3. Notification: textbox outline will turn red if user selects below 35%.
- [00130]** 1.4.2.2.3.4. Default value: 50%

- [00131] 1.4.2.2.3.5. Next slide prompt (Continue): User may select the Continue button or click on the name of the next slide in the Left Navigation.
- [00132] 1.4.2.3. Your Market: Figure 26 shows a page of the wizard for entering details of the company's market.
- [00133] 1.4.2.3.1. Question 6: Where do you currently advertise your product or services?
- [00134] 1.4.2.3.1.1. User may select multiple locations by checking boxes:
- [00135] 1.1.1.1....1. US: East Coast
- [00136] 1.1.1.1....2. US: Midwest
- [00137] 1.1.1.1....3. US: West
- [00138] 1.1.1.1....4. Canada
- [00139] 1.1.1.1....5. Europe
- [00140] 1.1.1.1....6. Asia-Pacific
- [00141] 1.1.1.1....7. Latin/South America
- [00142] 1.1.1.1....8. Africa/Middle East
- [00143] 1.4.2.3.2. Question 7: How fast do you expect your category to grow next year? (Enter a % amount between -100% and +100%)
- [00144] 1.4.2.3.2.1. Enter percentage growth in text box
- [00145] 1.4.2.3.2.2. Value range: -100-100%
- [00146] 1.4.2.3.2.3. Textbox value range: -100%-100%
- [00147] 1.4.2.3.2.4. Default value: 0.00%
- [00148] 1.4.2.3.3. Question 8: Do you know your approximate current market share?
- [00149] 1.4.2.3.3.1. User may enter percentage into textbox
- [00150] 1.4.2.3.3.2. Value range: 0-100%.

- [00151]** 1.4.2.3.3.3. Checkbox: If user does not know, they may select the "I don't know" checkbox. This will grey out the percentage entry form.
- [00152]** 1.4.2.3.3.4. Default value: 5%
- [00153]** 1.4.2.3.3.5. Elasticities: 1.2, 1, 0.8
- [00154]** 1.4.2.3.4. Question 9: How established is your product or services category within your industry?
- [00155]** 1.4.2.3.4.1. User may select one value from the dropdown:
- [00156]** 1.1.1.1....1. -Select one-
- [00157]** 1.1.1.1....2. Well established (10 years or more)
- [00158]** 1.1.1.1....3. Recently established (3-9 years)
- [00159]** 1.1.1.1....4. Very new (less than 3 years)
- [00160]** 1.4.2.3.4.2. Elasticities: 0.8, 1.0, 1.5
- [00161]** 1.4.2.3.5. Next slide prompt (Continue): User may select the Continue button or click on the name of the next slide in the Left Navigation.
- [00162]** 1.4.3. Section 2: Your Customers
- [00163]** 1.4.3.1. Target Market: Figure 27 shows a page of the wizard for entering details of the company's target market.
- [00164]** 1.4.3.1.1. Question 10: What age range of consumers do you market your products or services to?
- [00165]** 1.4.3.1.1.1. User may select one from dropdown:
- [00166]** 1.1.1.1.1....1. -select one-
- [00167]** 1.1.1.1.1....2. Adults 18-49
- [00168]** 1.1.1.1.1....3. Teens 12-17
- [00169]** 1.1.1.1.1....4. Kids 3-11
- [00170]** 1.1.1.1.1....5. Adults 50+

- [00171]** 1.4.3.1.1.2. Conditional display: This question is only displayed if user selected that they market to Consumers or Both on Slide 1.
- [00172]** 1.4.3.1.2. Question 11: What size businesses do you market your products or services to?
- [00173]** 1.4.3.1.2.1. User may select from dropdown:
- [00174]** 1.1.1.1....1. -select one-
- [00175]** 1.1.1.1....2. Small Business
- [00176]** 1.1.1.1....3. Large Business
- [00177]** 1.4.3.1.2.2. Conditional display: This question is only displayed if user selected that they market to Businesses or Both on Slide 1.
- [00178]** 1.4.3.1.3. Next slide prompt (Continue): User may select the Continue button or click on the name of the next slide in the Left Navigation.
- [00179]** 1.4.3.2. Product Research: Figure 28 shows a page of the wizard for entering details of the company's product research.
- [00180]** 1.4.3.2.1. Question 12: Does the customer need a lot of information to make a decision to purchase your product or services?
- [00181]** 1.4.3.2.1.1. User may select value from slider
- [00182]** 1.4.3.2.1.2. Value range: "very little" to "a lot"
- [00183]** 1.4.3.2.1.3. Elasticities: 1.2 to 0.8
- [00184]** 1.4.3.2.2. Question 13: From a customer perspective, how complex are the products or services that you are offering?
- [00185]** 1.4.3.2.2.1. User may select value from slider
- [00186]** 1.4.3.2.2.2. Value range: "Very Simple", "Simple", "Complex", "Very Complete"
- [00187]** 1.4.3.2.3. Next slide prompt (Continue): User may select the Continue button or click on the name of the next slide in the Left Navigation.

[00188]

[00189] 1.4.3.3. Customer buying habits: Figure 29 shows a page of the wizard for entering details of the company's customer buying habits.

[00190] 1.4.3.3.1. Question 14: To what extent do customers scrutinize your product or service before purchasing it?

[00191] 1.4.3.3.1.1. User may select value using slider

[00192] 1.4.3.3.1.2. Value range: "They extremely scrutinize it" to "The purchase it purely habitually"

[00193] 1.4.3.3.1.3. Elasticities: 0.8 to 1.2

[00194] 1.4.3.3.2. Question 15: Do customers purchase into your product or service category on emotional or rational grounds?

[00195] 1.4.3.3.2.1. User may select value using slider

[00196] 1.4.3.3.2.2. Value range: "Pure rational" to "Pure emotional"

[00197] 1.4.3.3.2.3. Elasticities: 0.8 to 1.2

[00198] 1.4.3.3.3. Question 16: How can customers tell the quality of your product or services before purchase?

[00199] 1.4.3.3.3.1. User may select value using slider

[00200] 1.4.3.3.3.2. Value range: "By comparing its features", "Only after using it", "Difficult to rate even after use"

[00201] 1.4.3.3.3.3. Elasticities: 0.7 to 1.3

[00202] 1.4.3.3.4. Question 17: How frequently do your customers typically purchase into your product or services category?

[00203] 1.4.3.3.4.1. User may select from dropdown:

[00204] 1.1.1.1...1. -select one-

[00205] 1.1.1.1...2. Daily

[00206] 1.1.1.1...3. Weekly

- [00207]** 1.1.1.1...4. Monthly
- [00208]** 1.1.1.1...5. Quarterly
- [00209]** 1.1.1.1...6. Yearly
- [00210]** 1.1.1.1...7. Every several years
- [00211]** 1.1.1.1...8. Just once
- [00212]** 1.4.3.3.4.2. Note: To see all values in dropdown, user must use scroll bar.
- [00213]** 1.4.4. Section 3: Product or Services
- [00214]** 1.4.4.1. Pricing and current needs: Figure 30 shows a page of the wizard for entering details of the company's products or services.
- [00215]** 1.4.4.1.1. Question 18: What is the general price point of the products or services in your category?
- [00216]** 1.4.4.1.1.1. Textbox value range values \$0-9,999,999,999
- [00217]** 1.4.4.1.1.2. No default value
- [00218]** 1.4.4.1.2. Question 19: How would you characterize your product or service?
- [00219]** 1.4.4.1.2.1. User may select from dropdown:
- [00220]** 1.1.1.1.1...1. –select one–
- [00221]** 1.1.1.1.1...2. High-end
- [00222]** 1.1.1.1.1...3. Mid-range positioned
- [00223]** 1.1.1.1.1...4. Discount and value positioned
- [00224]** 1.4.4.1.3. Question 20: Focus in on what you will be marketing next year. Is this to support a new product or service?
- [00225]** 1.4.4.1.3.1. User may select from dropdown:
- [00226]** 1.1.1.1.1...1. Yes
- [00227]** 1.1.1.1.1...2. No

- [00228] 1.4.4.1.3.2. Default value: No
- [00229] 1.4.4.1.3.3. Elasticities: yes=1.5 no=1
- [00230] 1.4.4.1.3.4. If user selects Yes, they must answer Question 21
- [00231] 1.4.4.1.4. Question 21: If new, is there a tangible new benefit or competitive value to your product or service?
- [00232] 1.4.4.1.4.1. User may select from dropdown:
- [00233] 1.1.1.1.1...1. –select one-
- [00234] 1.1.1.1.1...2. Yes
- [00235] 1.1.1.1.1...3. No
- [00236] 1.4.4.1.4.2. Elasticities: yes=2 no=1
- [00237] 1.4.5. Section 4: Media and Advertising
- [00238] 1.4.5.1. About your budget: Figure 31 shows a page of the wizard for entering details of the company's customer buying habits.
- [00239] 1.4.5.1.1. Question 22: Is your MarCom budget set by you?
- [00240] 1.4.5.1.1.1. User may select from dropdown:
- [00241] 1.1.1.1.1...1. –select one-
- [00242] 1.1.1.1.1...2. Yes
- [00243] 1.1.1.1.1...3. No
- [00244] 1.4.5.1.1.2. Default value: Yes
- [00245] 1.4.5.1.2. Question 23: Do you have a constraint on your MarCom budget that you cannot spend over? If so, what is the absolute budget you must work within? If you do not select a hard budget, Compass will be your guide and tell you how much you should be spending on MarCom.
- [00246] 1.4.5.1.2.1. Textbox: numerical entry only
- [00247] 1.4.5.1.2.2. Value range: \$0-9,999,999,999

[00248] 1.4.5.2. About your media: Figure 32 shows a page of the wizard for entering details of the company's media.

[00249] 1.4.5.2.1. Question 24: Which best describes the content or style of your current MarCom?

[00250] 1.4.5.2.1.1. User may select from slider:

[00251] 1.4.5.2.1.2. Value range: "Fact-based – product, service, or price" to "Warm and Fuzzy – an emotional connection"

[00252] 1.4.5.2.1.3. Elasticities: fact-based=1.5 for print, warm=1.5 for TV, otherwise=1

[00253] 1.4.5.2.2. Question 25: How would you assess the quality of your MarCom's creative elements?

[00254] 1.4.5.2.2.1. User may select from slider:

[00255] 1.4.5.2.2.2. Value range; "Poor", "Below average", "Average", "Good", "Exceptional"

[00256] 1.4.5.2.2.3. Elasticities: 1.2, 1, 1, 1, 0.9

[00257] 1.4.5.2.3. Question 26: How do you gauge the effectiveness of your MarCom strategy?

[00258] 1.4.5.2.3.1. User may check all that apply:

[00259] 1.1.1.1.1...1. Increased revenue

[00260] 1.1.1.1.1...2. Increased market share

[00261] 1.1.1.1.1...3. Increased distribution

[00262] 1.1.1.1.1...4. Improved profitability

[00263] 1.1.1.1.1...5. Improved buzz

[00264]

[00265] 1.4.5.3. About your brand: Figure 33 shows a page of the wizard for entering details of the company's brand.

- [00266]** 1.4.5.3.1. Question 27: Would you say 'brand personality' helps your revenue/market share in your category?
- [00267]** 1.4.5.3.1.1. User may select from slider:
- [00268]** 1.4.5.3.1.2. Value range: "Does not matter at all" to "Matters a lot"
- [00269]** 1.4.5.3.1.3. Elasticities: yes - 1.3, no - 1.0
- [00270]** 1.4.5.3.2. Question 28: What is your brand awareness with your customer base?
- [00271]** 1.4.5.3.2.1. User may select from slider:
- [00272]** 1.4.5.3.2.2. Value range: "My brand is very familiar" to "my brand is completely unknown"
- [00273]** 1.4.5.3.2.3. Elasticities: 0.5 to 1.2
- [00274]** 1.4.5.3.3. Question 29: When thinking about your MarCom media spending relative to your competition, your share of voice is:
- [00275]** 1.4.5.3.3.1. User may select from dropdown:
- [00276]** 1.1.1.1.1...1. -select one-
- [00277]** 1.1.1.1.1...2. The same as your market share
- [00278]** 1.1.1.1.1...3. Is higher than your market share
- [00279]** 1.1.1.1.1...4. Is lower than your market share
- [00280]** 1.4.5.3.3.2. Elasticities: 1.0, 0.7, 1.3
- [00281]** Your media allocation: Figure 34 shows a page of the wizard for entering details of the company's media allocation for a prior period, such as the past 12 months. Figure 35 shows this page following the entry of historical allocations.
- [00282]** 1.4.5.4. Question 30: The MarCom budget you spent for the past 12 months is: [dynamic text indicating users' budgets]. Enter the percentage amounts for how your MarCom budget was allocated:

[00283] 1.4.5.4.1. User must select the percentage of their budget that they spent on each media in the last year.

[00284] • TV: Percent allocation and dollar amount that that translates into.

[00285] • Radio: Percent allocation and dollar amount that that translates into.

[00286] • Print: Percent allocation and dollar amount that that translates into.

[00287] • Internet Search: Percent allocation and dollar amount that that translates into.

[00288] • Internet Display: Percent allocation and dollar amount that that translates into.

[00289] • Other: Percent allocation and dollar amount that that translates into.

[00290] • Unallocated: This section displays the amount percentage has not been allocated to a media type. The dollar amount of budget unallocated is reflected below the percentage unallocated.

[00291] 1.4.5.4.2. Elasticities: Elasticities vary by media type and industry.

[00292] 1.4.5.4.3. Constraints column: User may add constraint by checking the constraint box to the right.

[00293] 1.4.5.4.3.1. Question to turn on constraints: If you need to add a spend constraint (amount you must spend on that media) to any of the media types, check this box. 0 denotes no constraint.

[00294] 1.4.5.4.3.2. User can enter any dollar amount is this box. If dollar amount is entered, the Compass recommended optimal spend for that media will not exceed the number that the user entered. Figure 36 shows this page after the user has entered a constraint.

[00295] 1.4.5.5. Continue button is disabled until the user has allocated exactly 100% of their MarCom budget. When user clicks the continue button, the optimization is triggered.

[00296] 1.4.5.6. Optimization: Figure 37 shows a page of the wizard describing the optimization process. The user clicks a View Results button to view results screens.

[00297] 1.5. Results Pages

[00298] 1.5.1. Optimize for Growth: The user clicks a View Results button to view results screens.

[00299] The first screen the user lands on in the Results section is the Budget page, as shown in Figure 38. This page displays the user's current MarCom state, as it was entered in the Wizard. There are two versions of this slide, one for optimal Growth and one for optimal Profit.

[00300] This page defaults to the optimal budget for *growing* revenue.

[00301] 1.5.1.1. Growth button is slightly highlighted in lower section of slide to indicate that the user is currently optimizing for Growth.

[00302] 1.5.1.2. Page header Copy:

[00303] Optimize for Growth:

[00304] Based on what you've told us and how you answered our questions about your business, Compass has the following recommendations for your MarCom budget. Click the ALLOCATION or SPENDING tabs above to see where we recommend you allocate your MarCom dollars for best results.

[00305] 1.5.1.3. Budget table: Figure 39 shows a version of the budget table included in Figure 38 updated in response to the user entering a new revenue target.

[00306] 1.5.1.3.1. Current column: displays the numbers that user has entered in the Wizard about their previous year's spend.

[00307] 1.5.1.3.2. Required for Growth column: displays the necessary numbers to grow to the users stated growth target.

[00308] 1.5.1.3.2.1. User must enter growth target in the text box below, labeled: "Please enter a \$ revenue target for growth:

[00309] 1.5.1.3.2.2. Default value is equal to user's current revenue.

[00310] 1.5.1.3.2.3. When number is entered in box, the Required for Growth column with change to reflect new numbers.

[00311] 1.5.1.4. Constraints checkbox: If the user had selected media constraints on the Media Allocation page in the Wizard, they can enable or disable the constraints by checking and un-checking the constraints checkbox.

[00312] 1.5.2. Alternate View: Budget – Optimize for Profit

[00313] When the user clicks the Profit button on the Budget page, the table changes to a table that reflects the optimal MarCom Budget, Revenue for maximizing Profit, shown in Figure 40.

[00314] 1.5.2.1. Allocation Page optimized for Growth: There are two versions of the allocation page--one to reflect an optimal Profit scenario and one to reflect an optimal Growth scenario. Figure 41 shows the version of the allocation page reflecting the optimal Growth scenario.

[00315] 1.5.2.1.1. Current Media Allocation: This section stays constant on all results slides.

[00316] 1.5.2.1.2. Optimal Media Allocation for Revenue Growth: reflects recommended allocation of media when user is trying to meet their stated revenue target.

[00317] 1.5.2.1.3. Difference: reflects the difference in Current Allocation and Recommended Allocation.

[00318] 1.5.2.2. Allocation Slide optimized for Profit: Figure 42 shows the version of the allocation page reflecting the optimal Profit scenario.

[00319] 1.5.2.2.1. Current Media Allocation: This section stays constant on all results slides.

[00320] 1.5.2.2.2. Optimal Media Allocation for Profit: reflects recommended allocation of media when user is trying to optimize (find maximum) Profit.

[00321] 1.5.2.2.3. Difference: reflects the difference in Current Allocation and Recommended Allocation.

[00322] 1.5.2.3. Spending Page optimized for Growth: There are two versions of the spending page--one to reflect optimal Profit scenario and one to reflect optimal

Growth scenario. Figure 43 shows the version of the spending page reflecting the optimal Growth scenario.

[00323] 1.5.2.3.1. Current Media Allocation: This section stays constant on all results slides.

[00324] 1.5.2.3.2. Optimal Media Allocation for Revenue Growth: reflects recommended allocation of media when user is trying to meet their stated revenue target, in dollars.

[00325] 1.5.2.3.3. Difference, lower section: reflects the difference in Current Allocation and Recommended Allocation.

[00326] 1.5.2.3.4. Difference, line graph: allows users to see where their optimal revenue and MarCom spend is.

[00327] 1.5.2.3.4.1. Gross Revenue line (yellow): Shows gross revenue as MarCom spend increases.

[00328] 1.5.2.3.4.2. Profit (blue): Shows profit as MarCom spend increases.

[00329] 1.5.2.3.4.3. Current Spend (red): line represents where user stands in revenue and profit based on their current media spend.

[00330] 1.5.2.3.4.4. Optimal Spend (green): line represents where user should be spending in order to maximize their expressed revenue growth target.

[00331] 1.5.2.4. Spending Page optimized for Profit Figure 44 shows the version of the allocation page reflecting the optimal Profit scenario.

[00332] 1.5.2.4.1. Current Media Allocation: This section stays constant on all results slides.

[00333] 1.5.2.4.2. Optimal Media Allocation for Profit: reflects recommended allocation of media when user is trying to achieve their maximum profit, in dollars.

[00334] 1.5.2.4.3. Difference, lower section: reflects the difference in Current Allocation and Recommended Allocation.

[00335] 1.5.2.4.4. Difference, line graph: allows users to see where their optimal revenue and MarCom spend is.

[00336] 1.5.2.4.4.1. Gross Revenue line (yellow): Shows gross revenue as MarCom spend increases.

[00337] 1.5.2.4.4.2. Profit (blue): Shows profit as MarCom spend increases.

[00338] 1.5.2.4.4.3. Current Spend (red): line represents where user stands in revenue and profit based on their current media spend.

[00339] 1.5.2.4.4.4. Optimal Spend (green): line represents where user should be spending in order to maximize their profit.

[00340] 1.5.2.5. Plan Media page optimized for Growth: This page allows the user to review the ad buy that was recommended by Compass. There are two versions of the plan media page--one to reflect an optimal Profit scenario and one to reflect an optimal Growth scenario. Figure 45 shows the version of the plan media page reflecting the optimal Growth scenario.

[00341] 1.5.2.5.1. Optimization Results: Media Spend for Revenue Growth

[00342] 1.5.2.5.2. Each media type percent and dollar amount is displayed

[00343] 1.5.2.5.2.1. Flighting button: button takes user to Flighting/Digital Buy page.

[00344] 1.5.2.6. Plan Media page Optimized for Profit: Figure 46 shows the version of the plan media page reflecting the optimal Profit scenario.

[00345] 1.5.2.7. Optimization Results: Media Spend for Profit

[00346] 1.5.2.8. Each media type percent and dollar amount is displayed

[00347] 1.5.2.8.1. Flighting button: button takes user to Flighting/Digital Buy page.

[00348] 1.5.2.9. Flighting/Digital Buy page: This page allows the user to fulfill the ad buy that was recommended by Compass. There are two versions of the Flighting/Digital Buy page--one for recommended spend based on optimal profit and

one for recommended spend for stated growth target. Figure 47 shows the version of the Flighting/Digital Buy page reflecting the optimal Growth scenario.

[00349] 1.5.2.10. Flighting/Digital Buy –Optimized for Profit: Figure 48 shows the version of the Flighting/Digital Buy page reflecting the optimal Profit scenario.

[00350] 1.5.2.11. Completing the Digital Buy page: Figure 49 shows the completion of the Digital Buy page shown in Figure 47.

[00351] 1.5.2.11.1. Media Rows: User can enter the amount they wish to spend by month by checking the box and entering the dollar amount. Amount requested will display next to Planned Spend so user can track overspend.

[00352] 1.5.2.11.2. Once the requested spend amounts are completed, the user can select and ad vendor from the dropdown list. When vendor has been selected and user clicks “Buy Digital”, user will be taken to appropriate vendor web page with spend amounts per month already calculated.

[00353] 1.5.2.11.3. Vendors: Currently, Google is the only vendor populated in dropdown list. Each links to the appropriate Google page for that media type buy.

[00354]

[00355] Sample calculations:

[00356] Figures 50 and 51 show sample results produced by the facility.

[00357]

[00358] Equations:

[00359] In some embodiments, the facility uses an approach such as the following to determine a level of spending expected to optimize growth and/or profit.

The variable elast_b represents the elasticity values of all questions multiplied together and multiplied against a constant currently set to .05. The ceiling for this value is .3.

[00360] Base_k represents the base revenue generated with a zero MarCom spend and is calculated:

$$base_k = \frac{revenue_y}{budget_x^{elast_b}}$$

[00361] The Optimal budget computed for optimal profit, x prime, is calculated:

$$x' = elast_b \cdot base_k \cdot growth \cdot margin^{\frac{1}{(1-elast_b)}}$$

[00362] Optimal revenue computed for optimal profit, k prime, is calculated:

$$y' = (base_k \cdot growth) \cdot x'^{elast_b}$$

[00363] Optimizing for growth starts by defining the targetGrowth variable as:

$$targetGrowth = \frac{(targetRevenue_y - revenue_y)}{revenue_y}$$

[00364] The budget required to reach the growth target is defined as:

$$requiredBudget = \left(\frac{targetRevenue_y}{(base_k \times growth)} \right)^{\frac{1}{elast_b}}$$

[00365] Where growth is a multiplier expressed as a number between 0 and 1, and the resulting profit can be computed:

$$resultProfit = targetRevenue_y \times margin_m - requiredBudget$$

[00366] Conclusion

[00367] It will be appreciated by those skilled in the art that the above-described facility may be straightforwardly adapted or extended in various ways. While the foregoing description makes reference to particular embodiments, the scope of the

invention is defined solely by the claims that follow and the elements explicitly recited therein.

CLAIMS

We claim:

[c1] 1. A method in a computing system for automatically prescribing an allocation of resources to a total marketing budget for a distinguished offering, with the goal of optimizing a distinguished business outcome for the offering that is expected to be driven at least in part by the allocation of resources to the total marketing budget, comprising:

receiving qualitative attributes of the distinguished offering from a user;

retrieving an experimentally-obtained average total marketing budget lift factor;

adjusting the experimentally-obtained average total marketing budget lift factor based upon at least two of the received qualitative attributes of the distinguished offering; and

using the adjusted experimentally-obtained average total marketing budget lift factor to determine an allocation of resources to a total marketing budget that tends to optimize the distinguished business outcome.

[c2] 2. The method of claim 1, further comprising persistently storing the determined allocation of resources.

[c3] 3. The method of claim 1, further comprising displaying the determined allocation of resources to a user.

[c4] 4. The method of claim 1 wherein the retrieved experimentally-obtained average total marketing budget lift factor is an experimentally-obtained average total marketing budget elasticity measure.

[c5] 5. A computer-readable medium whose contents cause a computing system to perform a method for automatically prescribing an allocation of resources to a total marketing budget for a distinguished offering, with the goal of optimizing a distinguished business outcome for the offering that is expected to be driven at least in part by the allocation of resources to the total marketing budget, comprising:

receiving qualitative attributes of the distinguished offering from a user;

retrieving an experimentally-obtained average total marketing budget lift factor;

adjusting the experimentally-obtained average total marketing budget lift factor based upon at least two of the received qualitative attributes of the distinguished offering; and

using the adjusted experimentally-obtained average total marketing budget lift factor to determine an allocation of resources to a total marketing budget that tends to optimize the distinguished business outcome.

[c6] 6. A method in a computing system for automatically prescribing an allocation of resources to each of one or more activities to be performed with respect to a distinguished offering, with the goal of optimizing a business outcome for the offering that is expected to be driven at least in part by the activities, comprising:

receiving information from a user characterizing attributes of the distinguished offering;

for each of the activities, determining a lift factor derived from experimental results for one or more offerings that, while distinct from the distinguished offerings, are determined to be similar to the distinguished offerings based on the received information characterizing attributes of the distinguished offering, the lift factor indicating the predicted effect of the activity on the business outcome; and

using the retrieved lift factors to generate an allocation of resources for each of the activities.

[c7] 7. The method of claim 6 wherein the determining comprises:
using the received information characterizing a first portion of the attributes of the distinguished offering to select a lift factor corresponding to experimental results for offerings whose first portion of attributes are characterized in a similar way; and
adjusting the selected lift factor based on using the received information characterizing a second portion of the attributes of the distinguished offering.

[c8] 8. The method of claim 6, further comprising automatically committing resources to at least one of the activities in accordance with the allocation generated for those activities.

[c9] 9. A computer-readable medium whose contents cause a computing system to perform a method for automatically prescribing an allocation of resources to each of one or more activities to be performed with respect to a distinguished offering, with the goal of optimizing a business outcome for the offering that is expected to be driven at least in part by the activities, the method comprising:

receiving information from a user characterizing attributes of the distinguished offering;

for each of the activities, determining a lift factor derived from experimental results for one or more offerings that, while distinct from the distinguished offerings, are determined to be similar to the distinguished offerings based on the received information characterizing attributes of the distinguished offering, the lift factor indicating the predicted effect of the activity on the business outcome; and

using the retrieved elasticity measures to generate an allocation of resources for each of the activities.

[c10] 10. The computer-readable medium of claim 9 wherein the determining comprises:

using the received information characterizing a first portion of the attributes of the distinguished offering to select a lift factor corresponding to experimental results for offerings whose first portion of attributes are characterized in a similar way; and

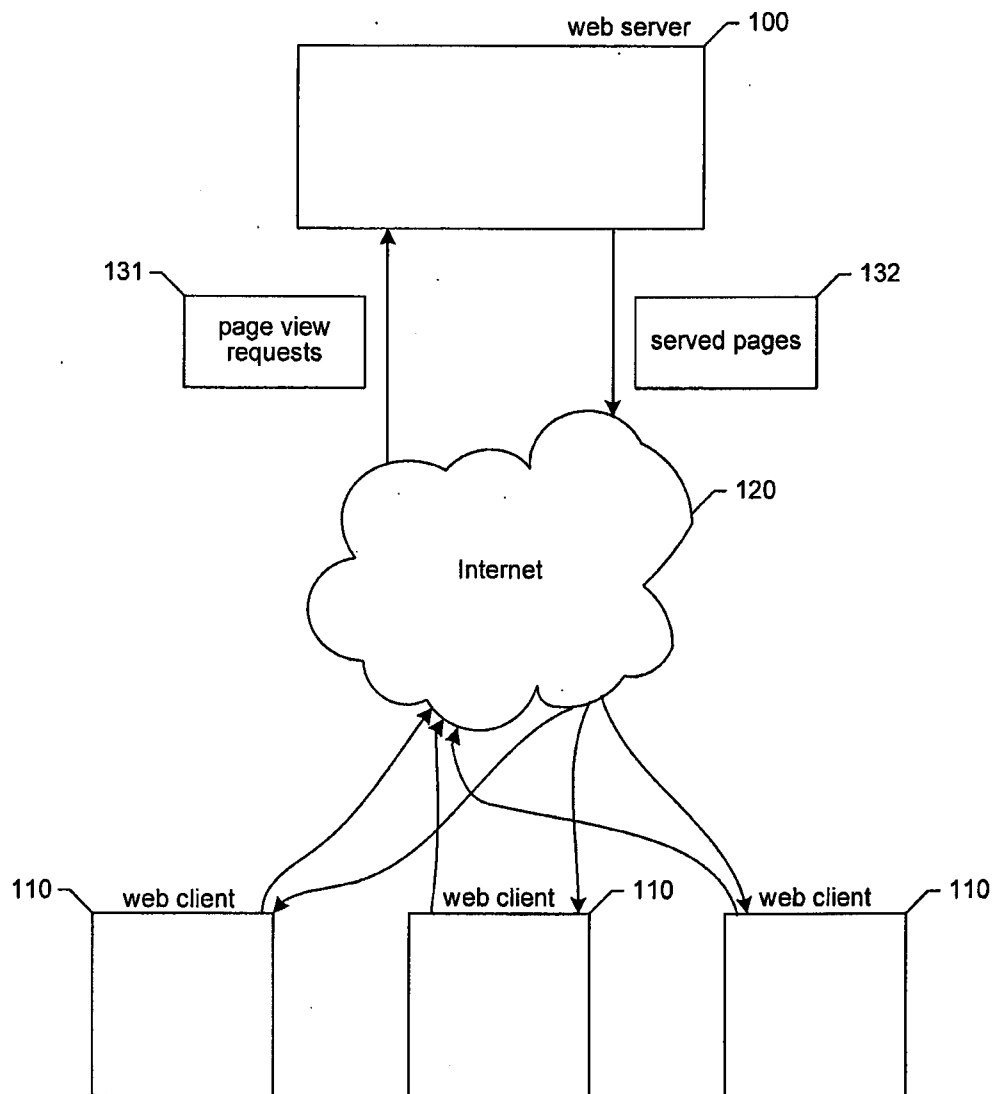
adjusting the selected lift factor based on using the received information characterizing a second portion of the attributes of the distinguished offering.

[c11] 11. The computer-readable medium of claim 9 further comprising automatically committing resources to at least one of the activities in accordance with the allocation generated for those activities.

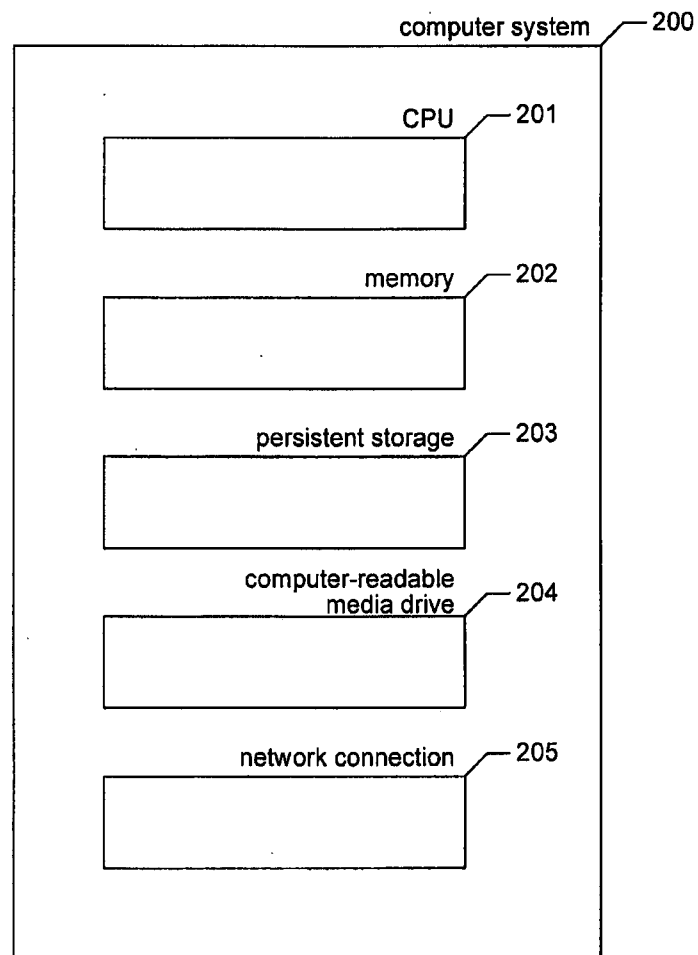
[c12] 12. One or more computer memories collectively storing a generalized marketing lift factor data structure, comprising a plurality of entries each for a different business offering profile, each business offering profile describing a group of one or more business offerings that are qualitatively distinguished from groups of business offerings of the other business offering profile, each entry containing a lift factor indicating the effect of a marketing activity with respect to the group of business offerings on a business outcome, such that, for a distinguished business offering described by a distinguished one of the profiles, the lift factor indicated by the distinguished entry may be used to automatically specify an allocation of marketing resources to the distinguished business offering.

[c13] 13. The computer memories of claim 12 wherein the lift factor contained by each entry is an elasticity measure.

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**FIG. 1**

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**FIG. 2**

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Library of Elasticities		356												300	
IDEAL MIX IS RATIO OF ELASTICITIES S.T. RIGHT META_DATA PROFILE		LOGS:												371	
Metadata Profile	Metrics	Log (Outcome)	Log (Outcome, lag1)	Log (Relative Price)	TV	Print	Radio	Outdoor	Internet Search	Hispanic Query	Direct	Events	Sponsor	370	
Study XXZ_101	Study Characteristics	351												369	
	New product	No	311	312										368	
	Cognition score	Medium												367	
	Affect score	High	313											366	
	Experience score	Average		314										365	
	Message clarity	Grid from budget	315											364	
Study XXZ_102	Study Characteristics													363	
	New product	Yes												362	
	Cognition score	Low												361	
	Affect score	High												360	
	Experience score	Average												359	
	Message clarity	Grid from budget	316											358	
Study XXZ_1-3	Study Characteristics													357	
	New product	No												356	
	Cognition score	Medium												355	
	Affect score	High												354	
	Experience score	Average												353	
	Message clarity	Grid from budget												352	
persuasiveness		1	0.5	0.2	0.4	0.15	0.4	0.12	0.03	0.025	0.015	0.035	0.04	0.02	0.01
persuasiveness		1	0.5	0.2	0.4	0.15	0.4	0.12	0.03	0.025	0.015	0.035	0.04	0.02	0.01
persuasiveness		1	0.5	0.2	0.4	0.15	0.4	0.12	0.03	0.025	0.015	0.035	0.04	0.02	0.01
persuasiveness		1	0.5	0.2	0.4	0.15	0.4	0.12	0.03	0.025	0.015	0.035	0.04	0.02	0.01
persuasiveness		1	0.5	0.2	0.4	0.15	0.4	0.12	0.03	0.025	0.015	0.035	0.04	0.02	0.01

FIG. 3

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Optimize market spend – Increase ROI.

MSP Compass shows you how to get the best return on your marketing investment.
Best of all - it's Free!

It's easy – and free!

Don't have a MSP account?
[Sign Up Now.](#)

421

Sign in to MSP Compass with your
MSP | Account

Email: Password: ☒ Remember me on this computer.[I cannot access my account.](#)

411

FIG. 4

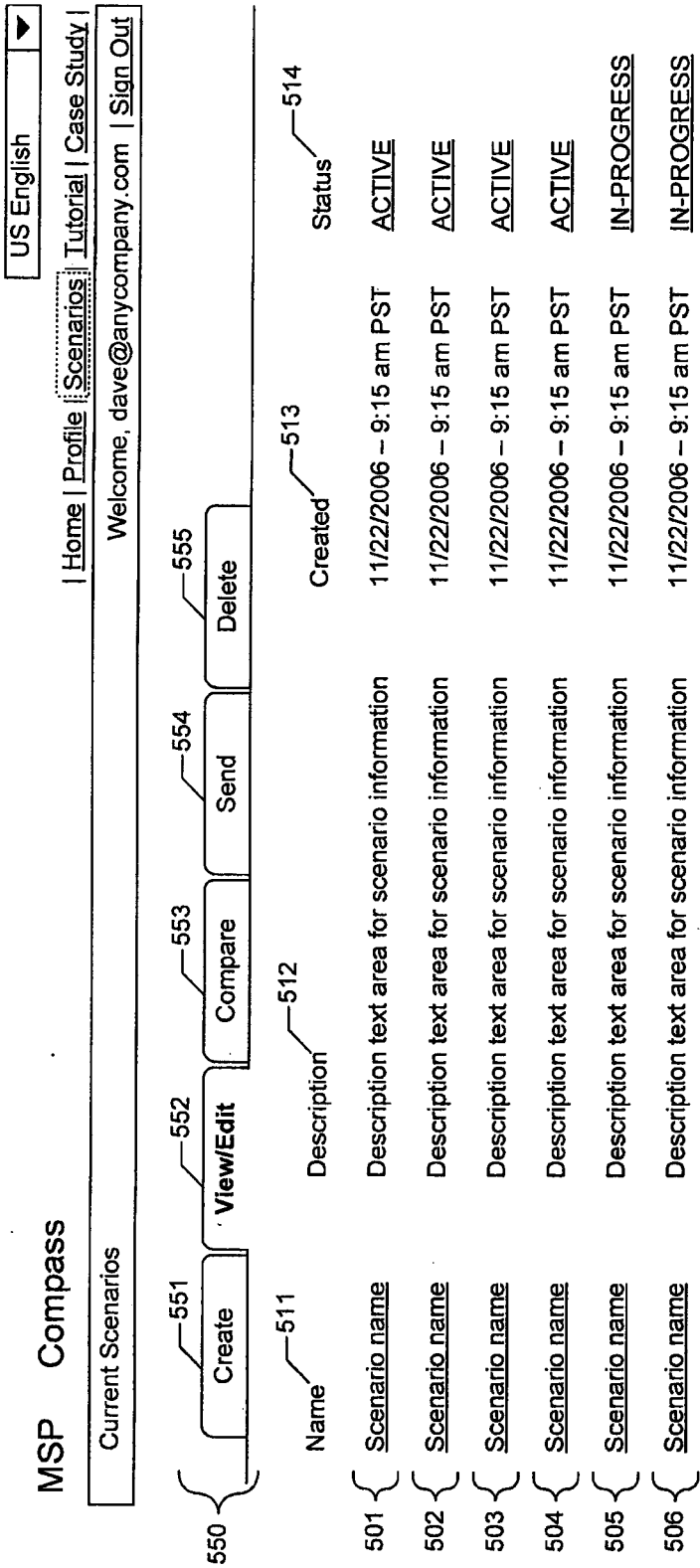


FIG. 5

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US English

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Compass: Scenario XYZ | Description

Step 1 > Step 2 > Step 3 > Step 4 >

Current Revenue (\$)

601

\$250,000,000

Current annual marketing spending (\$)

602

\$49,000,000

What is your anticipated growth rate for 1 year ahead for your industry?

603

10%

Gross Profit (% of Revenue)

604

40%

Market Share (% Dollars)

605

10%

Save

Continue >

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FIG. 6

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Compass: Scenario XYZ | Description

Step 1 > Step 2 > Step 3 > Step 4 >

701

Which describes your industry?

☒ very new
 ☐ fairly new
 ☐ fairly established
 ☐ very mature

702

Which describes your market?

☐ very new
 ☐ fairly new
 ☒ fairly established
 ☐ very mature

703

Which describes your channel?

☐ very new
 ☒ fairly new
 ☐ fairly established
 ☐ very mature

704

What is the innovation level of your marketing?

☐ very new
 ☐ fairly new
 ☐ fairly established
 ☒ very mature

Save

Continue >

FIG. 7

US English

▼

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801

What is the information content of your marketing focus this year?

☐ A lot of new content
☒ A mix of old and new content
☐ Established content to sustain

802

How would you characterize your company?

☐ Industry leader
☒ Top contender
☐ New entrant to the field
☐ Specialty or niche position

803

How would you characterize your market share?

☐ Low and declining
☒ Low and increasing
☐ High and declining
☐ High and increasing

804

How would you characterize your pricing strategy?

☐ Deep discount or price-focused position
☒ Premium or high-end position

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FIG. 8

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US English ▼

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Compass: Scenario XYZ | Description

Step 1 > Step 2 > Step 3 > Step 4 >

Would you like to include customer segment detail? } 901

☐ Yes ☒ No

Please click an area on the chart to plot your assessment of your branding, messaging, and positioning

Clarity
911

Excellent				
Good				
Fair				
Poor				

910

Below NormalTypicalBetter than NormalBreak Thru

912
Consistency

Please click an area on the chart to plot your assessment of your advertising

Likeability
921

Excellent				
Good				
Fair				
Poor				

920

Below NormalTypicalBetter than NormalBreak Thru

922
Persuasiveness

SaveContinue >

FIG. 9

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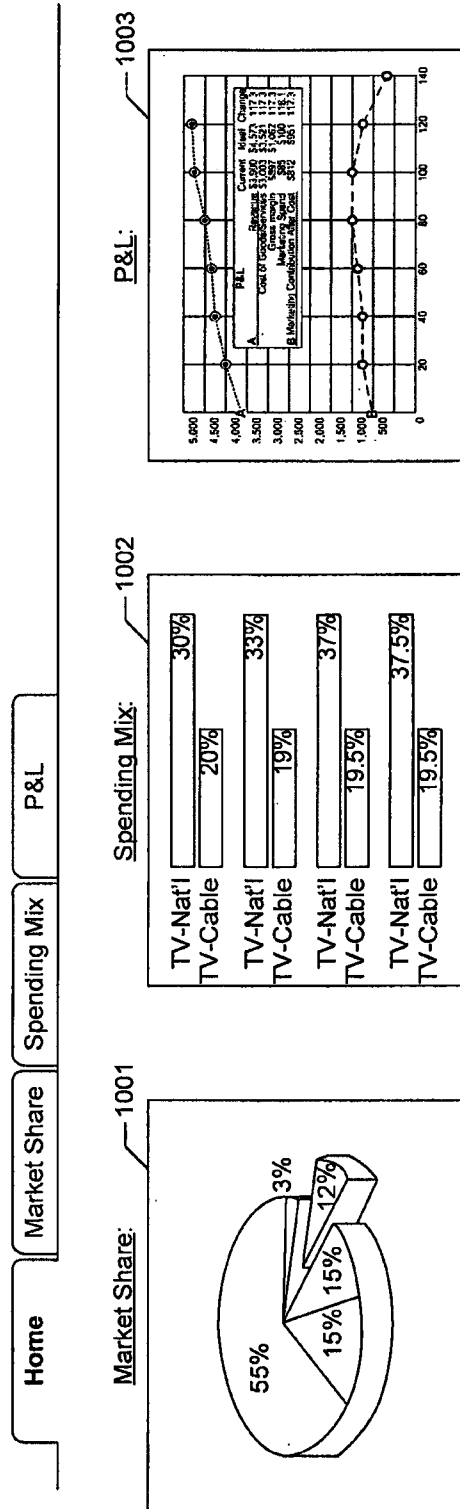
MSP Compass

Compass: Scenario XYZ | Description area for information

US English

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Click the chart above to
view more detail

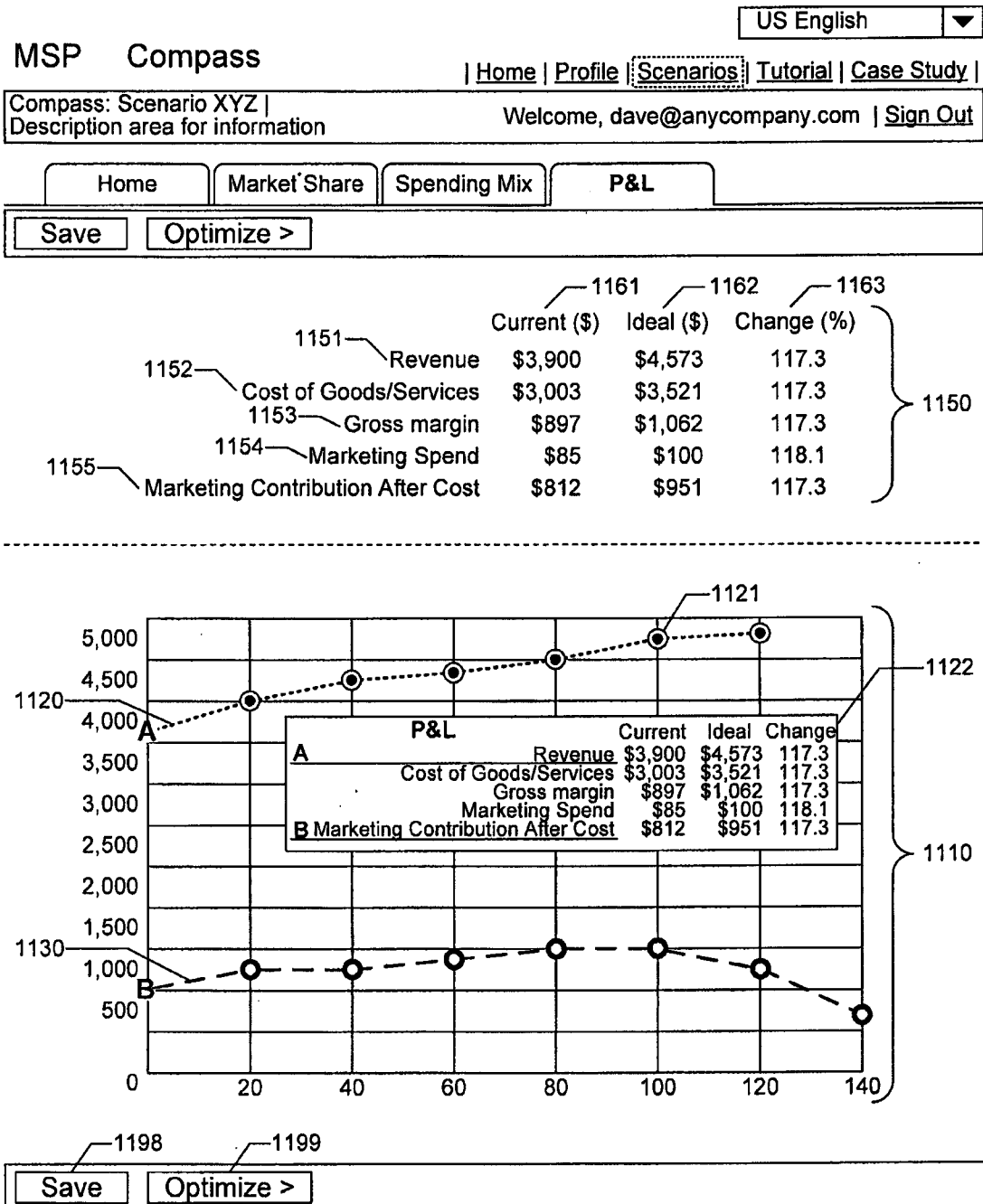
Click the chart above to
view more detail

Click the chart above to
view more detail

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FIG. 10

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US English ▾

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Budget:
(Accept or enter new amount)

 Default Budget
 \$49,000,000

Special Issue Setting:
 (Please select either Yes or No for the following questions)
 Y N
☐ ☒ Include both Brand and Product Media spending?
☒ ☐ Is this the launch of a New Product?

	1204 Current	1205 Ideal	1206 Brand (\$)	1207 Product (\$)	1208 Total \$ Amount Difference: Current vs. Ideal
1211 TV - National Network	<input type="text" value="30%"/>	37%	\$12,210	\$8,140	(5,650)
1212 TV - Cable	<input type="text" value="20%"/>	19.5%	\$6,435	\$4,290	(925)
1213 Radio	<input type="text" value="5%"/>	5%	\$1,650	\$1,100	(300)
1214 Print	<input type="text" value="15.0%"/>	10%	\$3,300	\$2,200	1,850
1215 Outdoor	<input type="text" value="2%"/>	2%	\$660	\$440	120
1216 Internet Search	<input type="text" value="2.5%"/>	6%	\$1,980	\$1,320	(2,075)
1217 Internet Banner	<input type="text" value="2.5%"/>	2%	\$660	\$440	120
1218 Local Events/Sponsorship	<input type="text" value="5%"/>	2.5%	\$825	\$550	1,075
1219 Global Events/Sponsorship	<input type="text" value="5%"/>	3%	\$990	\$660	800
1220 Other Digital Media	<input type="text" value="2%"/>	2%	\$660	\$440	(120)
1221 Direct/1:1	<input type="text" value="5%"/>	6%	\$1,980	\$1,320	(850)
1222 PR/Buzz	<input type="text" value="6%"/>	5%	\$1,650	\$1,100	190
	100%		\$33,000	\$22,000	\$6,000

Customize Report: (Please select the brands you would like to compare)

1231 ☒ TV

1232 ☒ Radio

1233 ☒ Print

1234 ☐ Outdoor

1235 ☐ Internet Search

1236 ☐ Internet Banner

1237 ☐ Local Events Sponsorship

1238 ☐ Global Events Sponsorship

1239 ☐ Other Digital Media

1240 ☐ Direct 1:1

1241 ☐ PR/Buzz

1250 TV-National & Cable

Current 1252

TV-Nat'l 1253

TV-Cable 1253

1251

1260 Radio

Current 1262

Ideal 1263

1270 Print

Current 1272

Ideal 1273

1254 Ideal

TV-Nat'l 1257

TV-Cable 1258

1256

1298 [Save](#)
1299 [Optimize >](#)

FIG. 12

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COMPASS KEY STEPS (1-6 BELOW)

OUTLINE

COMPASS MEDIA

DETERMINE
CONTEXT

1. Who is the target market for the brand or business?
 - 1.1 ☐ Adults, 18-49, both Male and Female
 - 1.2 ☐ Adults, 18-49, primarily Male
 - 1.3 ☐ Adults, 18-49, primarily Female
 - 1.4 ☐ Youth, Ages 15-22
 - 1.5 ☐ Children, Under Age 15
 - 1.6 ☐ Adults, 50+
2. Please describe the business or product category
 - 2.1 Consumer Involvement

☐ low
☐ medium
☐ high
 - 2.2 What level of information is needed by the customer

☐ low
☐ medium
☐ high
 - 2.3 Type of product or service

☐ durables
☐ consumer product

☐ non-durables
☐ industrial product
 - 2.4 Is the product or service

☐ a luxury or premium positioned brand
☐ high priced relative to norms
☐ superior in quality
3. Please describe the business, product's or service's share of voice
 - 3.1 ☐ typical/average
 - 3.2 ☐ above average
 - 3.3 ☐ below average
4. What is the primary goal of the communications
 - 4.1 ☐ convey information
 - 4.2 ☐ develop liking and emotional value
 - 4.3 ☐ reinforce habits
5. What is the stage of life of the business, product or service
 - 5.1 ☐ New
 - 5.2 ☐ Established
 - 5.3 ☐ Mature
 - 5.4 ☐ Other
6. What is the Reach objective over 12 months for the communications

☐ Percent of Target
7. What is the duration of the customer's usage or buying cycle
 - 7.1 ☐ Frequently, daily or weekly
 - 7.2 ☐ Seasonal
 - 7.3 ☐ Once a year/annually
 - 7.4 ☐ Once every 2-3 years
 - 7.5 ☐ Once in 10 years/
 - 7.6 ☐ Special
8. Please describe the customer's prior experience, if any, with the business, product or service

☐ None
☐ Average

☐ Positive Word of Mouth
☐ Below Average
9. Is brand "personality" considered a differentiator in the category

☐ Yes
 ☐ No
10. To what extent is the business, product or service required to be supported

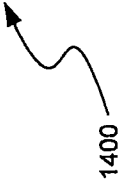
☐ Nationally
 ☐ Locally

1300

FIG. 13

Determine right communications mix (and constraints) (using rules)		SCORE	
Cognition	3 High	If 2.25 is high	
	2 Medium	If 2.2 is durables or industrial product, service	
	1 Low	If 2.1 or 2.2 is low and 4.2 or 4.3 is yes	
Affect	3 High	If 4.2 is yes	
	2 Medium	If 9 is yes	
	1 Low	If 9 is no, or 4.2 is no	
Experience	3 High	If any 2.3 are yes	
	2 Medium	If 8 is average or below average	
	1 Low	If 5 is new or 8 is none	

FIG. 14



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Preliminary initial mix of resources (if consumer product)	Starting Allocations Weights for Freq Calcs	Percentages		Rec'd Media Mix (starting, pre-adjustments)											
				1		2		3		4		5		6	
		Cognition score	Affect score	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
Compass Budget Deal															
\$10,000,000															
\$5,000,000	50	TV		44	20	60	60	50	50	100	100	50	65	55	50
\$0	10	Print - magazines		12	25	5	5	10	10	100	100	10	0	5	10
\$0	5	Print - newspapers		0	5	0	0	5	100	100	100	0	5	0	5
\$500,000	10	Radio		5	5	5	5	10	100	100	100	5	10	15	10
\$0	0	Outdoor		0	0	5	5	0	100	100	100	0	0	5	0
\$0	5	Internet - search		10	20	5	5	5	100	100	100	10	10	5	10
\$25,000	5	Internet - ad words		5	10	5	5	5	100	100	100	5	10	5	10
\$0	5	Direct marketing		12	15	0	0	5	100	100	100	5	0	0	5
\$0	5	Sponsorships/events		7	0	5	5	5	100	100	100	10	0	5	0
\$1,250	5	PR/other		5	0	10	10	5	100	100	100	5	0	5	0
\$0	0	Street		0	0	5	5	5	100	100	100	0	0	0	0
		Sub-total		100	100	100	100	100	100	100	100	100	100	100	100

FIG. 15

1500

Special adjustments	Adjust if highly local support
	Reduce TV 10
	Add 5 to newspapers
	Add 5 to sponsorships/events
	Adjust if a new product
	Add TV 5
	Reduce/scale rest of lines -5

1600

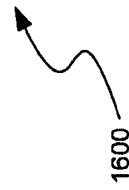


FIG. 16

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Determine reach and frequency factors for min persuasion and minimum impressions by type	Purchased Reach	Type	Effective % of target (reach)	FREQ WTS cf to C1112	Frequency per Cust. Minimum No. Exposures/ Purchase Cycle	No. Purchase cycles per year	Annual calc total no. impressions	CPI	Total	Est. Min Spending by Type
TARGET REACH SIZE OF TARGET AUDIENCE 5000000	6,260,000	TV	80	0.516	1.6	26	260,000,000	0.03	\$7,800,000	
		Print - magazines		0.032	0.1	26	16,250,000	0.01	\$162,500	
		Print - newspapers		0.032	0.1	26	16,250,000	0.005	\$81,250	
		Radio		0.032	0.1	26	16,250,000	0.0025	\$40,625	
		Outdoor		0.032	0.1	26	16,250,000	0.01	\$162,500	
		Internet - search		0.065	0.2	26	32,500,000	0.01	\$325,000	
		Internet - ad words		0.161	0.5	26	81,250,000	0.01	\$812,500	
		Direct marketing		0.032	0.1	26	16,250,000	0.03	\$487,500	
		Sponsorships/events		0.032	0.1	26	16,250,000	0.001	\$16,250	
		PR/other		0.032	0.1	26	16,250,000	0.005	\$81,250	
		Street		0.032	0.1	26	16,250,000	0.01	\$162,500	
					3.1		503,750,000	Sub-total	\$10,131,875	
				WTD sum						

FIG. 17

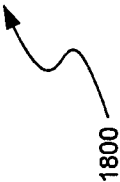
1700

Scale size of media results to match
Total budget dollars

Scale size of target audience
Up or down

Scale
up or
down
target
audience
to match
total
marketing
budget

FIG. 18



1800

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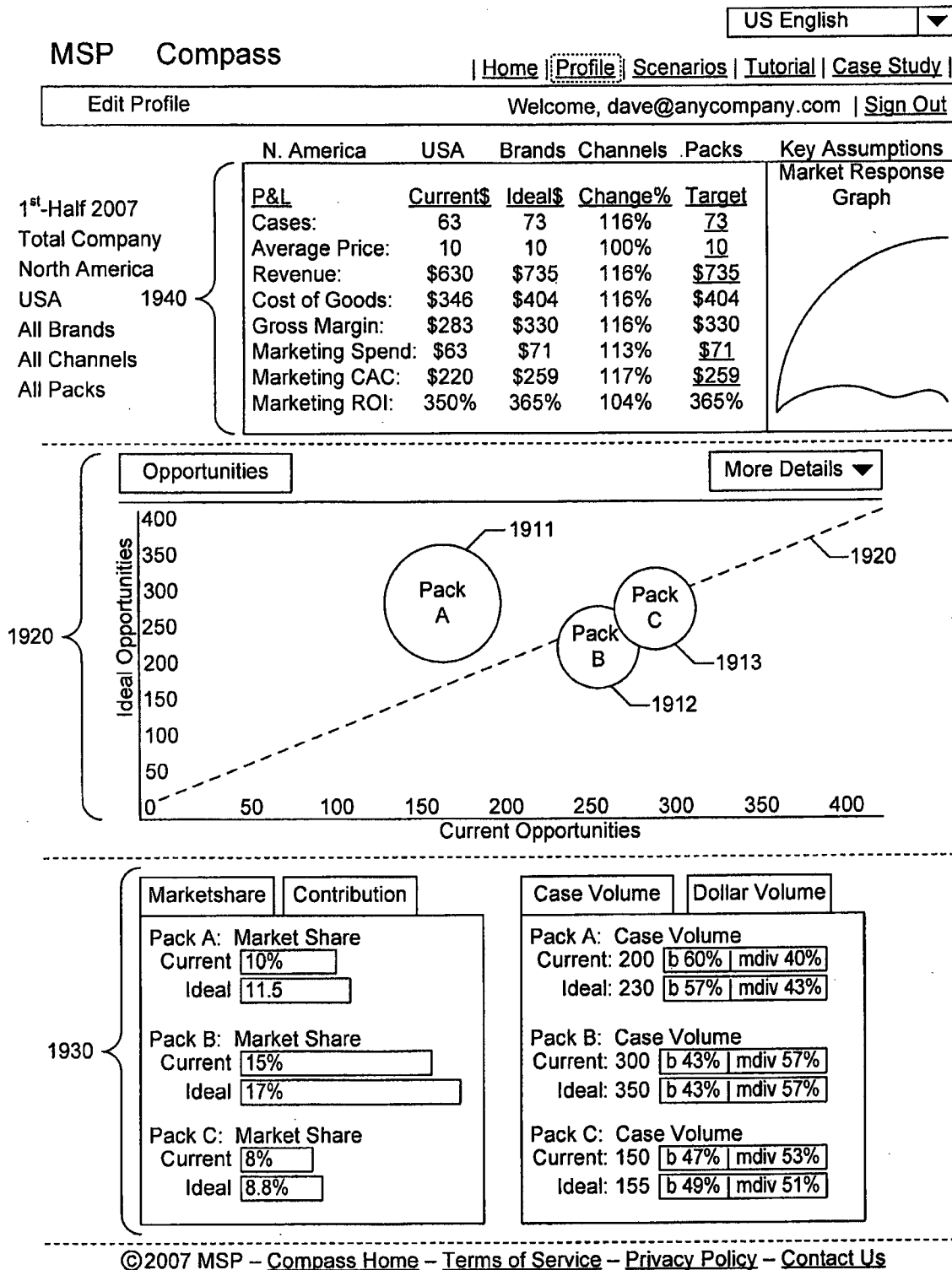


FIG. 19

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COMPASS

local time: Monday Aug. 13, 2007

myAccount | Sign-out

Welcome. Please Sign In.

▶ Enter your Compass ID (e-mail) and password below.

Compass ID

Password

☐ Remember me

▶ Don't have an account?
[Click here to sign up and create a new Compass account](#)

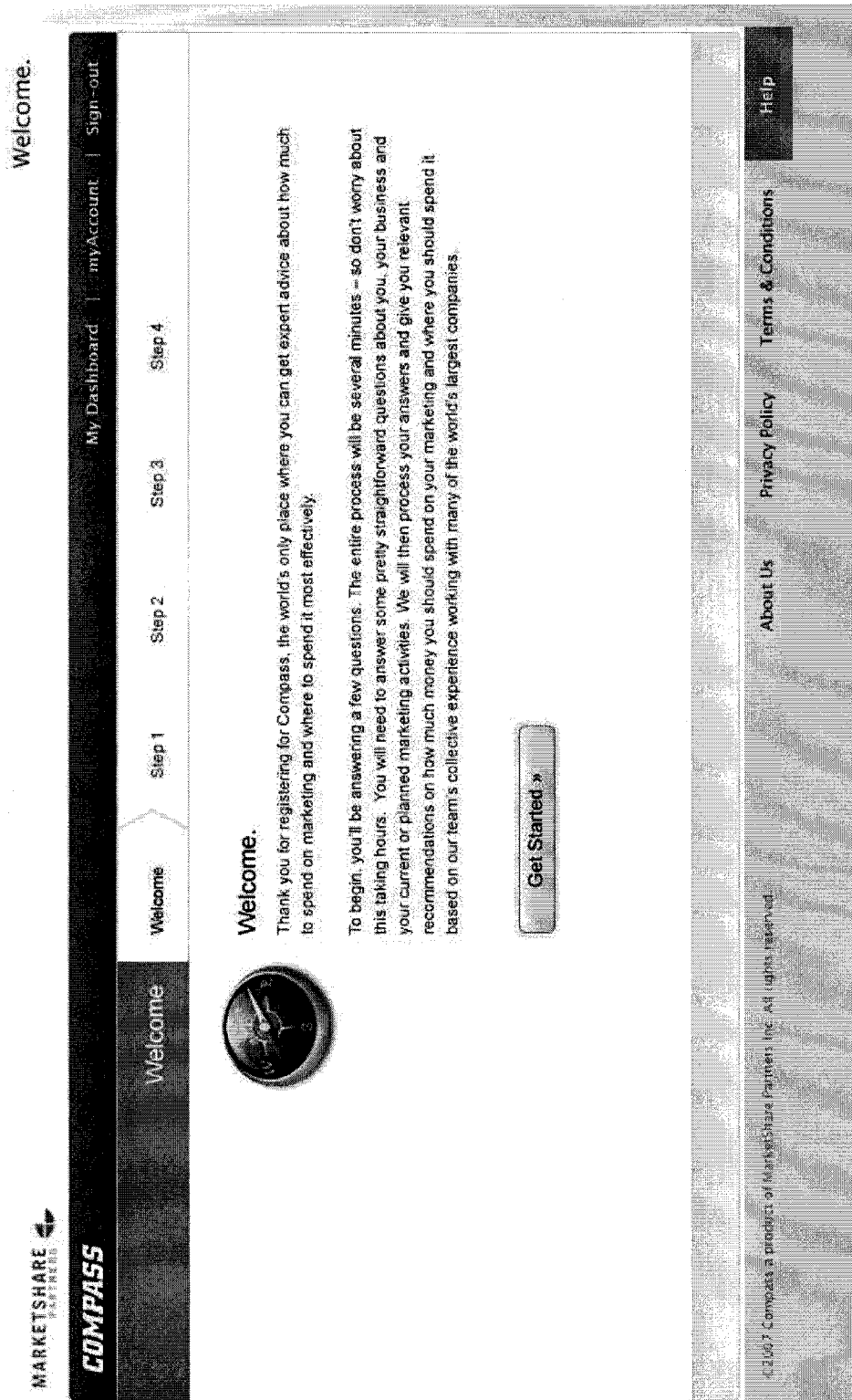
▶ Forget your username or password?
[Retrieve your username and/or password](#)

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Figure 20

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*Figure 21*

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Dashboard.

MARKETSHARE
PARTNERS

COMPASS

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Welcome – Joe Smith

Your scenarios are listed below. To edit a scenario, click on the scenario name. If you would like to create a new scenario for a new category or business unit, click on the Create New Scenario button.

Create Scenario

You must create different scenarios for different units or product categories.

Scenario Name	Category / Business Unit	Created:	Modified:	Status:	Scenario Options:
1. (Scenario Name-Description)	(Category / Business Unit)	(August 22, 2007)	(August 24, 2007)		View edit delete
2. (Scenario Name-Description)	(Category / Business Unit)	(August 22, 2007)	(August 24, 2007)		View edit delete
3. (Scenario Name-Description)	(Category / Business Unit)	(August 22, 2007)	(August 24, 2007)		edit delete
4. (Scenario Name-Description)	(Category / Business Unit)	(August 22, 2007)	(August 24, 2007)		View edit delete
5. (Scenario Name-Description)	(Category / Business Unit)	(August 22, 2007)	(August 24, 2007)		edit delete
6. (Scenario Name-Description)	(Category / Business Unit)	(August 22, 2007)	(August 24, 2007)		edit delete
7. (Scenario Name-Description)	(Category / Business Unit)	(August 22, 2007)	(August 24, 2007)		View edit delete
8. (Scenario Name-Description)	(Category / Business Unit)	(August 22, 2007)	(August 24, 2007)		edit delete

Page 4 1 2 3 4 5

Go to page:

In Progress Complete

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Figure 22

Scenario Name

Your Company Type & Target

Revenue and Spending

Your Market

Your Company

Your Customers

Products or Services

Media and Advertising

Type of Business

DCC Demo

Retail

Financial Services

Financial Services - Retail

Automotive

Who do you primarily sell to:

Consumers

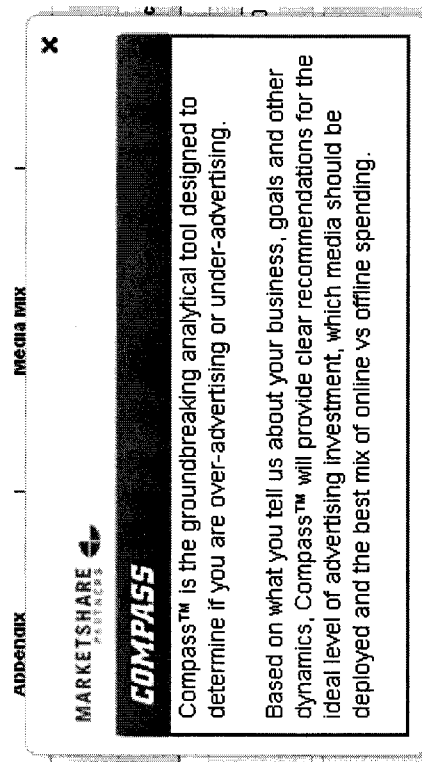
Why Compass?

Continue

User my click on Why Compass at any time during the Wizard

Figure 23

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*Figure 24*

MarketShare PARTNERS		COMPASS	
Wizard	Appendix	Media Mix	
Your Company Type & Target Revenue and Spending Your Market	Your Company	Your Customers	Products or Services Media and Advertising
In the last 12 months, what was your revenue?	\$100,000		
In these same 12 months, what percentage of your revenue have you spent on MarCom?	100 % of revenue, or amount \$		
What is your gross margin?	50.00 %		

Why Compass ?

Continue

Figure 25

MARKETSHARE
COMPASS

Wizard Appendix Media Mix Products or Services Media and Advertising

Your Company Type & Target Revenue and Spending
Your Market

Where do you currently advertise your product or services?

<input type="checkbox"/>	US: East Coast
<input type="checkbox"/>	US: Midwest
<input type="checkbox"/>	US: West
<input type="checkbox"/>	US: South
<input type="checkbox"/>	Canada
<input type="checkbox"/>	Europe
<input type="checkbox"/>	Asia-Pacific
<input type="checkbox"/>	Latin/South America
<input type="checkbox"/>	Africa / Middle East

How fast do you expect your category to grow next year?
(Enter a % amount between -100% and +100%)

0.00 %

Do you know your approximate current market share?

5 % ☐ I don't know

How established is your product or services category within your industry?

-select one-

Why Compass ?

Continue

Figure 26

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MARKETSHARE PARTNERS

COMPASS

Wizard

Appendix

Media Mix

Your Company

Your Customers

Products or Services

Media and Advertising

SEARCHING NAME

Target Market

Product Research

Customer buying habits

What age range of consumers do you market your products or services to?

-select one-

What size businesses do you market your products or services to?

-select one-

Why Compass ?

Continue

Figure 27

Scenario Name

Target market

Product Research

Customer buying habits

Why Compass ?

Continue

Your Company

Your Customers

Products or Services

Media and Advertising

Does the customer need a lot of information to make a decision to purchase your product or services?

very little a lot

From a customer perspective, how complex are the products or services that you are offering?

Very Simple Simple Complex Very Complex

Figure 28

Scenario Name: _____

Target market: _____

Product Research ch: _____

Customer buying habits: _____

Why Compass ?

Continue

Media and Advertising

Products or Services

Your Customers

Your Company

To what extent do customers scrutinize your product or service before purchasing it?

They extremely scrutinize it

They purchase it purely habitually

Do customers purchase into your product or service category on emotional or rational grounds?

Pure rational

Pure emotional

How can customers tell the quality of your product or services before purchase?

By comparing its features

Only after using it

Difficult to rate even after use

How frequently do your customers typically purchase into your product or services category?

-select one-

Figure 29

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MARKETSHARE
PRINCIPLES

COMPASS

Wizard Appendix Media Mix Your Company Your Customers Products or Services Media and Advertising

Wizard

What is the general price point of the products or services in your category?

How would you characterize your product or service?

Focus in on what you will be marketing next year. Is this to support a new product or service?

If new, is there a tangible new benefit or competitive value to your product or service?

This question is only displayed if user selects that they are marketing a new product or service.

Why Compass?

Continue

Figure 30

Scenario Name		Your Company	Your Customers	Products or Services	Media and Advertising
About your budget About your media About your brand Your media allocation		<p>Is your MarCom budget set by you?</p> <p>Yes <input type="button" value="v"/></p> <p>Do you have a constraint on your MarCom budget that you cannot spend over? If so, what is the absolute budget you must work within? If you do not select a hard budget, Compass will be your guide and tell you how much you should be spending on MarCom.</p> <p><input type="text"/></p>			
<p>Why Compass ?</p> <hr/>		<p>Continue</p>			

Figure 31

Scenario Name

About your budget
About your media
About your brand
Your media allocation

Why Compass ?

Continue

Your Company	Your Customers	Products or Services	Media and Advertising
Which best describes the content or style of your current MarCom?			
Fact-based - product, service, or price Warm and Fuzzy - an emotional connection			
How would you assess the quality of your MarCom's creative elements?			
Poor	Below average	Average	Good Exceptional
How do you gauge the effectiveness of your MarCom strategy?			
<input type="checkbox"/> Increased revenue <input type="checkbox"/> Increased market share <input type="checkbox"/> Increased distribution <input type="checkbox"/> Improved profitability <input type="checkbox"/> Improved buzz			

Figure 32

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MARKETSHARE COMPASS

Wizard **Appendix** **Media Mix** **Your Company** **Your Customers** **Products or Services** **Media and Advertising**

Scenario Builder

About your budget

About your media

About your brand

Your media allocation

Why Compass ?

Continue

Would you say 'brand personality' helps your revenue/market share in your category?

Does not matter at all Matters a lot

What is your brand awareness with your customer base?

My brand is very familiar My brand is completely unheard of

When thinking about your MarCom media spending relative to your competition, your share of voice is:

-select one-

Figure 33

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MARKETSHARE PARTNERS

COMPASS

Wizard Appendix Media Mix Products or Services Media and Advertising

Scenario Wizard

About your budget.
About your media
About your brand
 Your media allocation

The MarCom budget you spent for the past 12 months is:
 \$1,000. Enter the percentage amounts for how your
 MarCom budget was allocated:

TV	\$0	0	add constraint
Radio	\$0	0	add constraint
Internet Search	\$0	0	add constraint
Internet Display	\$0	0	add constraint
Other	\$0	0	add constraint

If you need to add a spend constraint
 (amount you must spend on that media)
 to any of the media types, check this box

☐ Allow media spend constraints

Note: Constraints on a specific media type are applied during optimization and

Why Compass?

Continue

Figure 34

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MARKETSHARE
PRACTICES
COMPASS

Wizard Appendix Media Mix Products or Services Media and Advertising

Your Company **Your Customers** **Media and Advertising**

About your budget
About your media
About your brand
 Your media allocation

[Why Compass ?](#)

[Continue](#)

The MarCom budget you spent for the past 12 months is:
 \$1,000. Enter the percentage amounts for how your
 MarCom budget was allocated:

TV	\$240	24%	add constraint	<input type="checkbox"/>
Radio	\$600	60%	add constraint	<input type="checkbox"/>
Internet Search	\$200	20%	add constraint	<input type="checkbox"/>
Internet Display	\$0	0%	add constraint	<input type="checkbox"/>
Other	\$0	0%	add constraint	<input type="checkbox"/>

If you need to add a spend constraint
 (amount you must spend on that media)
 to any of the media types, check this box.

☐ Allow media spend constraints


Media Allocation Pie Chart:

Media Type	Percentage
TV	24%
Radio	60%
Internet Search	20%
Internet Display	0%
Other	0%

Note: Constraints on a specific media type are applied during optimization and

Figure 35

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COMPASS

Wizard

Appendix

Media Mix

Scenario Name

Your Company

Your Customers

Products or Services

Media and Advertising

About your budget

About your media

About your brand

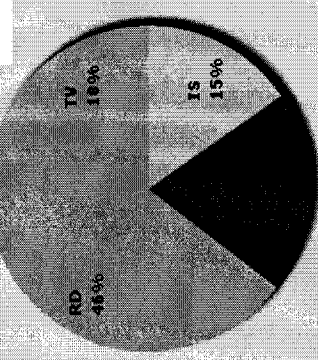
Your media allocation

The MarCom budget you spent for the past 12 months is: \$1,000. Enter the percentage amounts for how your MarCom budget was allocated:

Media Type	%	Amount	add constraint
TV	24	\$240	<input type="checkbox"/>
Radio	60	\$600	<input checked="" type="checkbox"/>
Internet Search	20	\$200	<input type="checkbox"/>
Internet Display	0	\$0	<input type="checkbox"/>
Other	0	\$0	<input type="checkbox"/>

If you need to add a spend constraint (amount you must spend on this media type), check the "Allow media spend" checkbox in order to activate the constraints column

☒ Allow media spend constraints



Note: Constraints on a specific media type are applied during optimization and

Why Compass ?

Continue

Figure 36

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MARKETSHARE
PARTNERS

COMPASS

Wizard

Appendix

Media Mix

Scenario Name

Your Company

Your Customers

Products or Services

Media and Advertising

About your budget

About your media

About your brand

Your media allocation

Why Compass ?

#1) Compass has reviewed its library of market response factors.

#2) Compass combines its baseline profile with your business information.

#3) Compass computes your specific Revenue Response Curve.

#4) Compass also computes a Profit Curve After Marketing Costs; and presents a Revenue Goal request.

#5) Next, Compass will display the Revenue Goal scenario; and a Profit scenario.

#6) If needed, you can revise your assumptions and inputs; or you can apply practical constraints for the resource line items.

You have completed all the questions, we are processing your answers. Your result will be displayed momentarily.

Optimization Completed.

View Results

Figure 37

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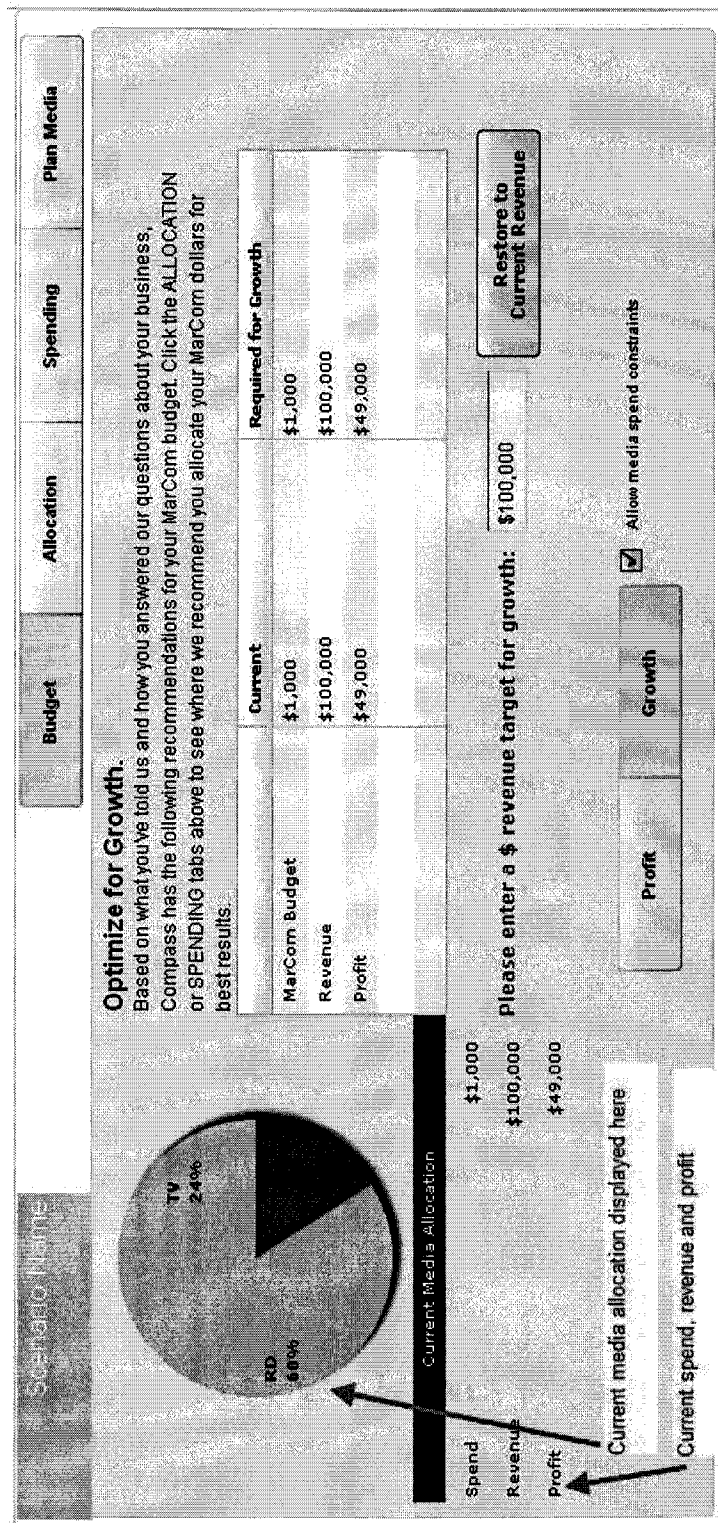


Figure 38

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Optimize for Growth.
Based on what you've told us and how you answered our questions about your business, Compass has the following recommendations for your MarCom budget. Click the ALLOCATION or SPENDING tabs above to see where we recommend you allocate your MarCom dollars for best results.

	Current	Required for Growth
MarCom Budget	\$1,000	\$49,868
Revenue	\$100,000	\$120,000
Profit	\$49,000	\$10,132

Please enter a \$ revenue target for growth:

☒ Allow media spend calculations

Restore to Current Revenue
Change to growth target triggers change in MarCom Budget and Profit calculations

Figure 39

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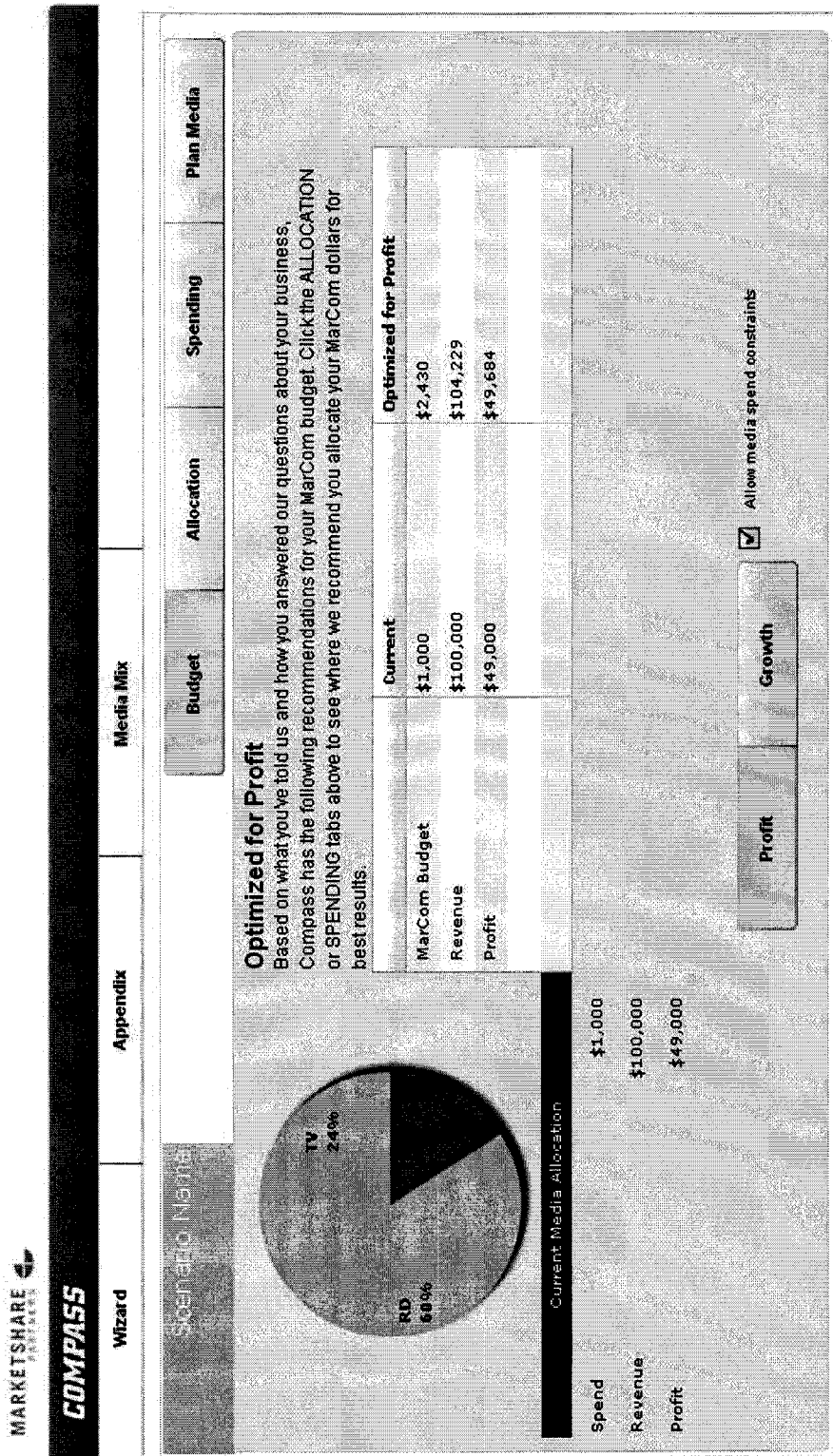


Figure 40

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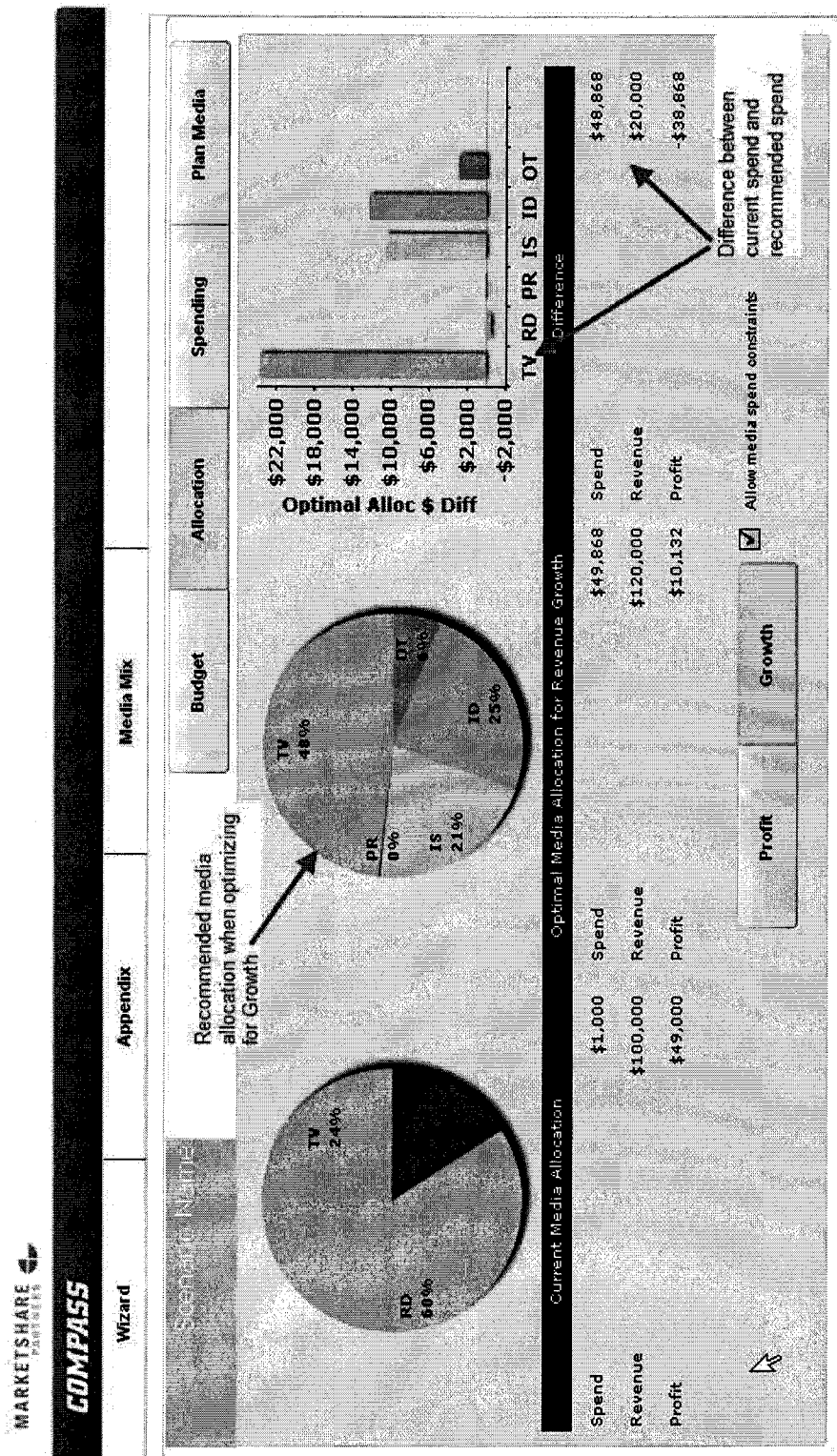


Figure 41

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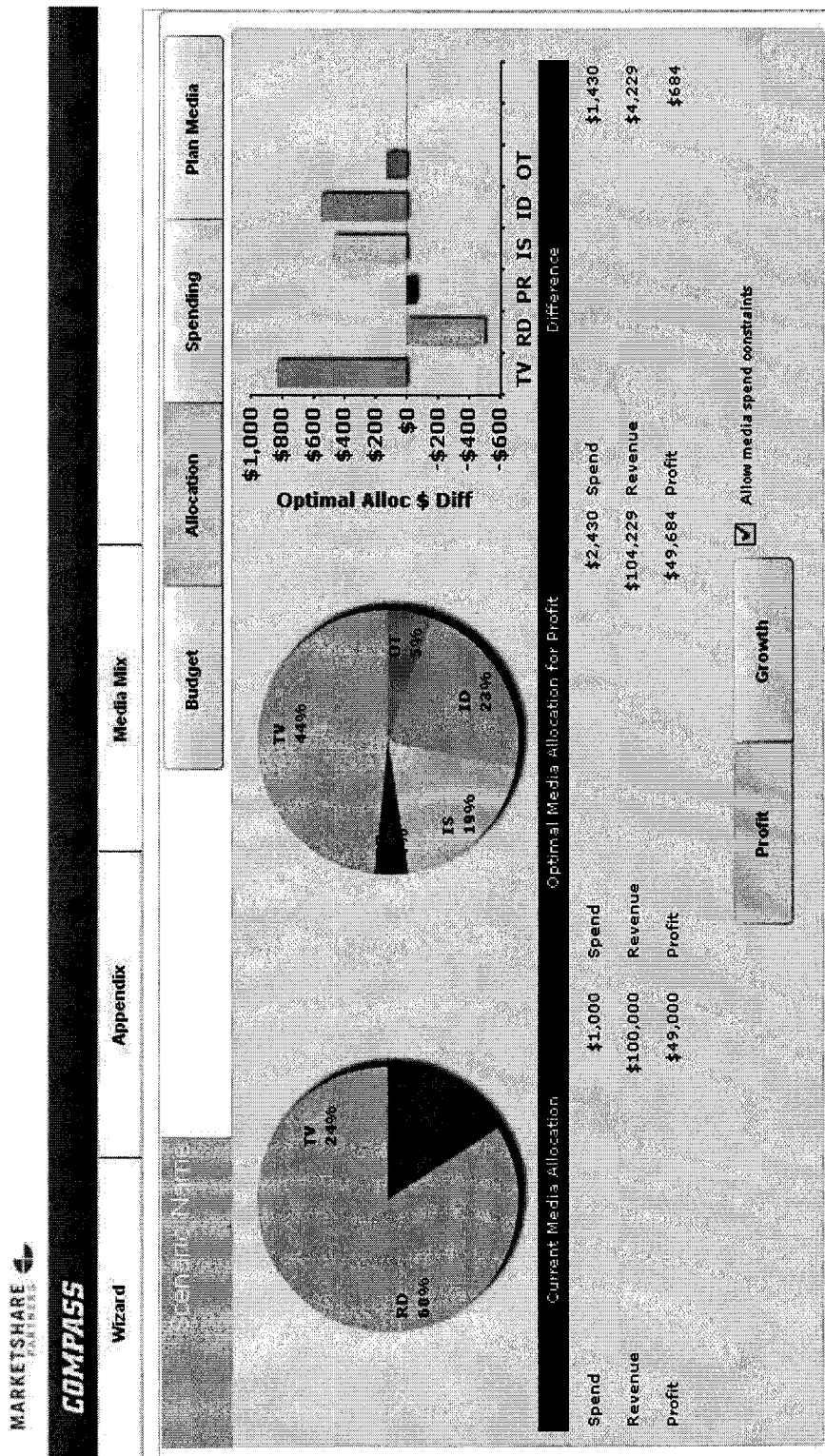


Figure 42

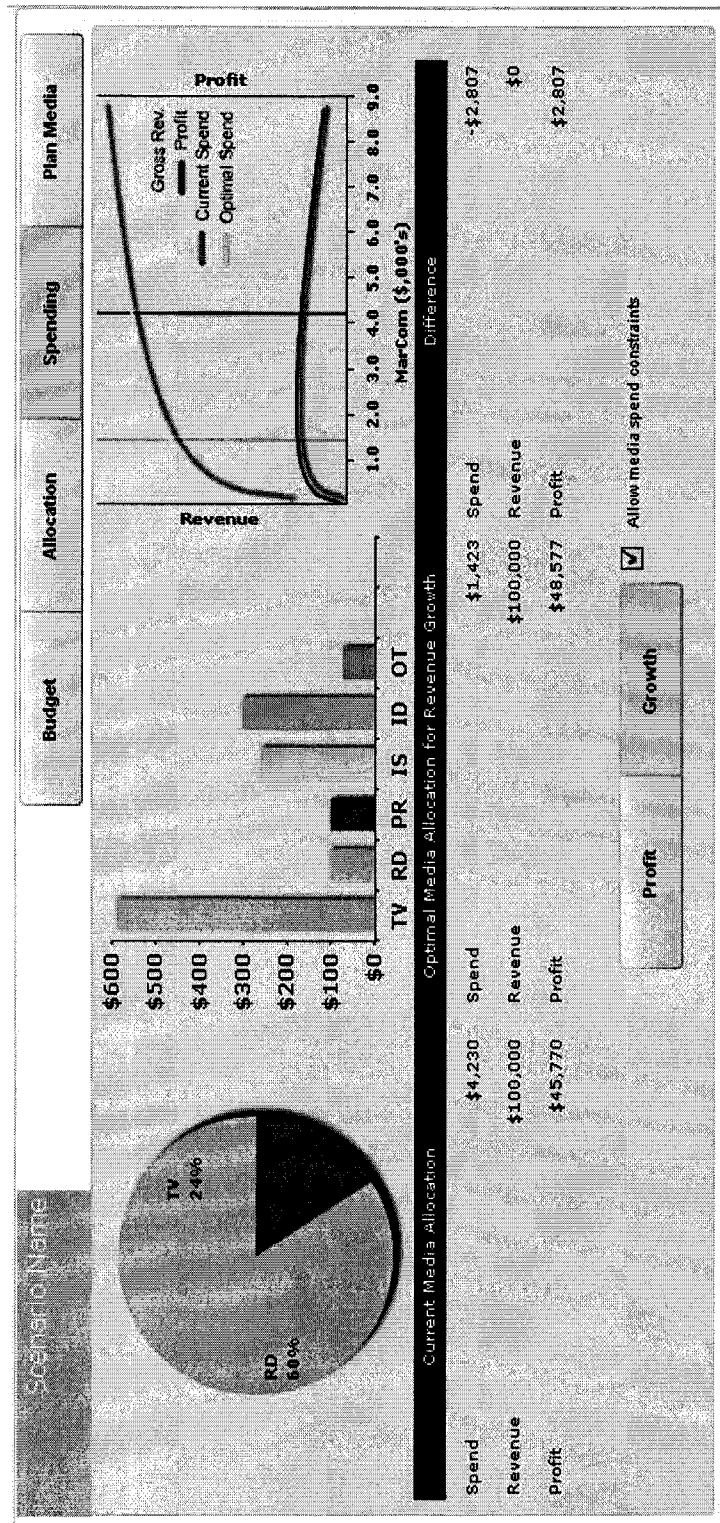


Figure 43

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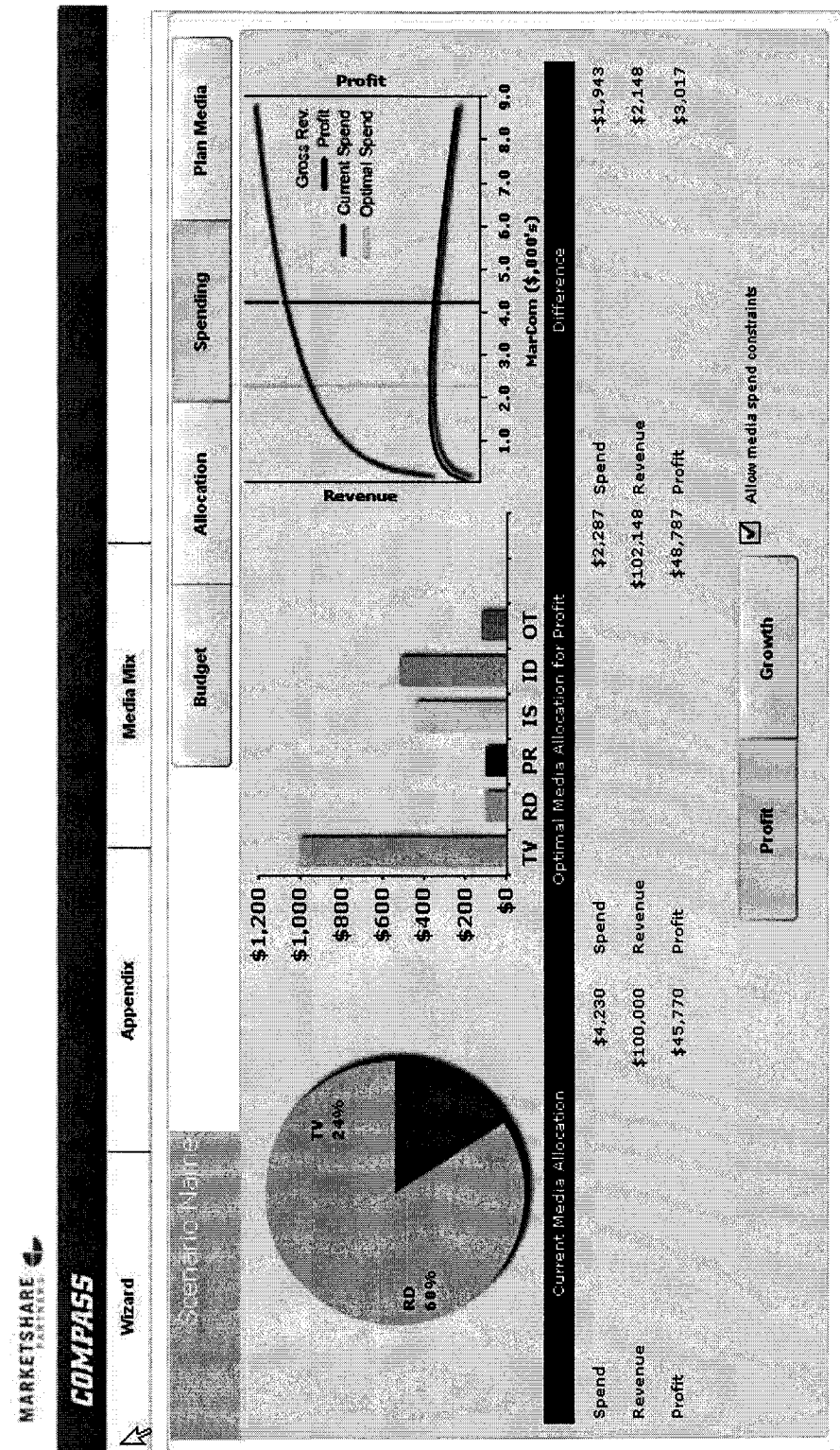


Figure 44

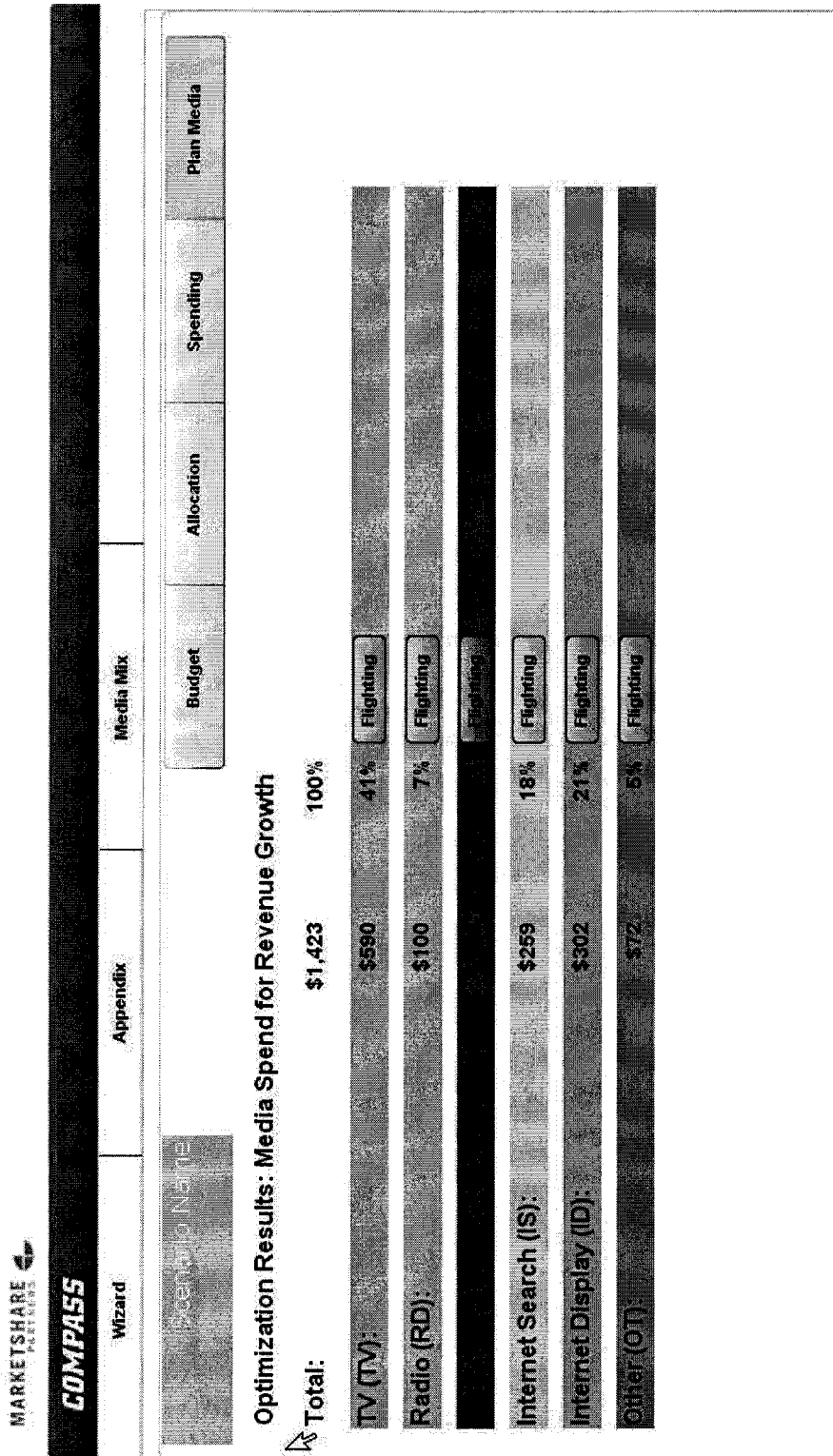


Figure 45

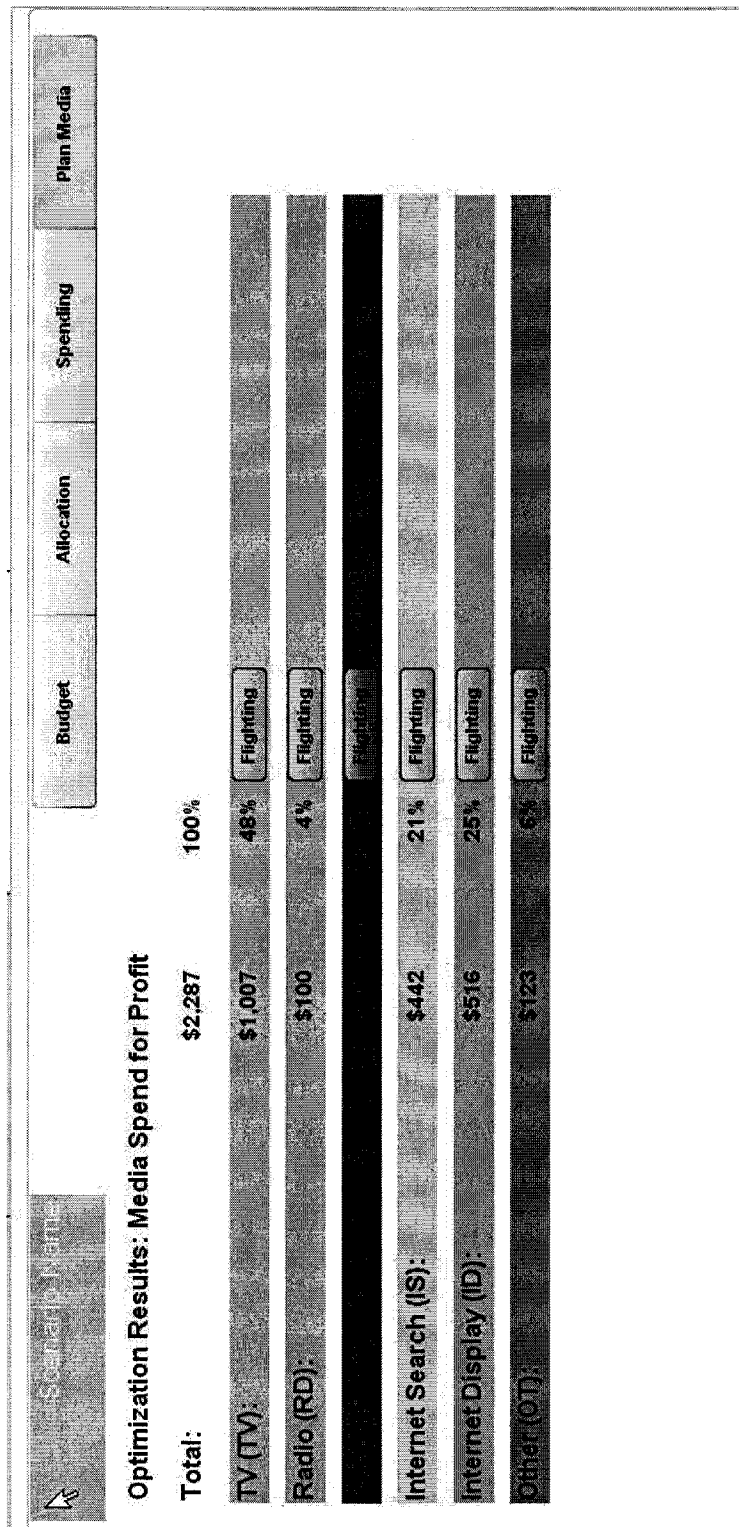


Figure 46

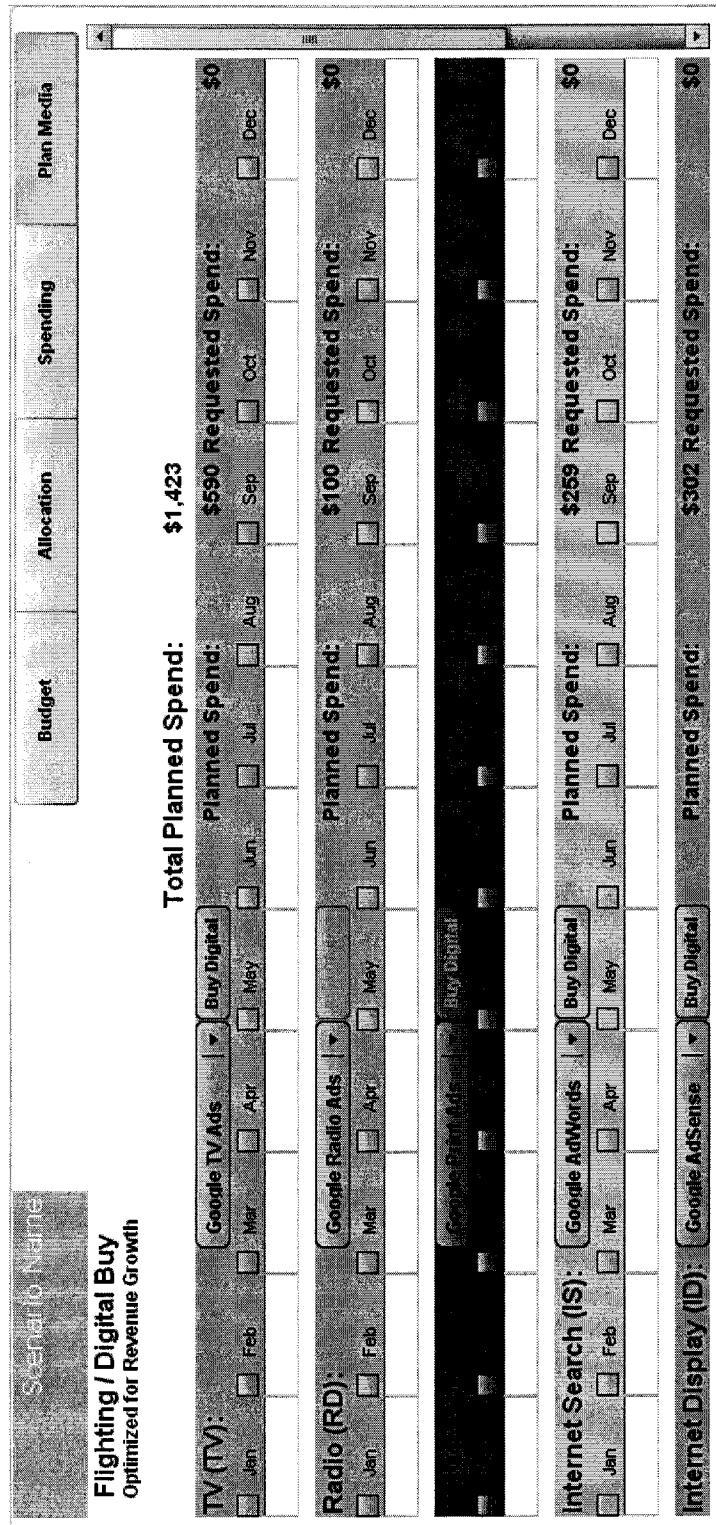


Figure 47

Scheduling Name	Budget	Allocation	Spending	Plan Media
Flighting / Digital Buy Optimized for Profit				
Total Planned Spend:		\$2,287		
TV (TV):	Google TV Ads ▾ Buy Digital	\$1,007 Requested Spend:		
<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May
		<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug
		<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov
				<input type="checkbox"/> Dec
Radio (RD):	Google Radio Ads ▾ Buy Digital	\$100 Requested Spend:		
<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May
		<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug
		<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov
				<input type="checkbox"/> Dec
Internet Search (IS):	Google AdWords ▾ Buy Digital	\$442 Requested Spend:		
<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May
		<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug
		<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov
				<input type="checkbox"/> Dec
Internet Display (ID):	Google AdSense ▾ Buy Digital	\$516 Requested Spend:		

Figure 48

Scenario Name: _____

Budget Allocation Spending Plan Media

Flighting / Digital Buy
Optimized for Revenue Growth

Enter the desired amount to spend by month → Select the company to fulfill the digital buy and click "Buy Digital" → Compares planned spend to requested spend

TV (TV): Google TV Ads | Buy Digital

Month	Planned Spend	Requested Spend
Jan	\$123	\$3,701
Feb	\$234	
Mar	\$344	
Apr		
May		
Jun		
Jul		
Aug		
Sep		
Oct		
Nov		
Dec		

Radio (RD): Google Radio Ads | Buy Digital

Month	Planned Spend	Requested Spend
Jan		\$0
Feb		
Mar		
Apr		
May		
Jun		
Jul		
Aug		
Sep		
Oct		
Nov		
Dec		

Internet Search (IS): Google AdWords | Buy Digital

Month	Planned Spend	Requested Spend
Jan		\$0
Feb		
Mar		
Apr		
May		
Jun		
Jul		
Aug		
Sep		
Oct		
Nov		
Dec		

Internet Display (ID): Google AdSense | Buy Digital

Month	Planned Spend	Requested Spend
Jan		\$0
Feb		
Mar		
Apr		
May		
Jun		
Jul		
Aug		
Sep		
Oct		
Nov		
Dec		

Figure 49

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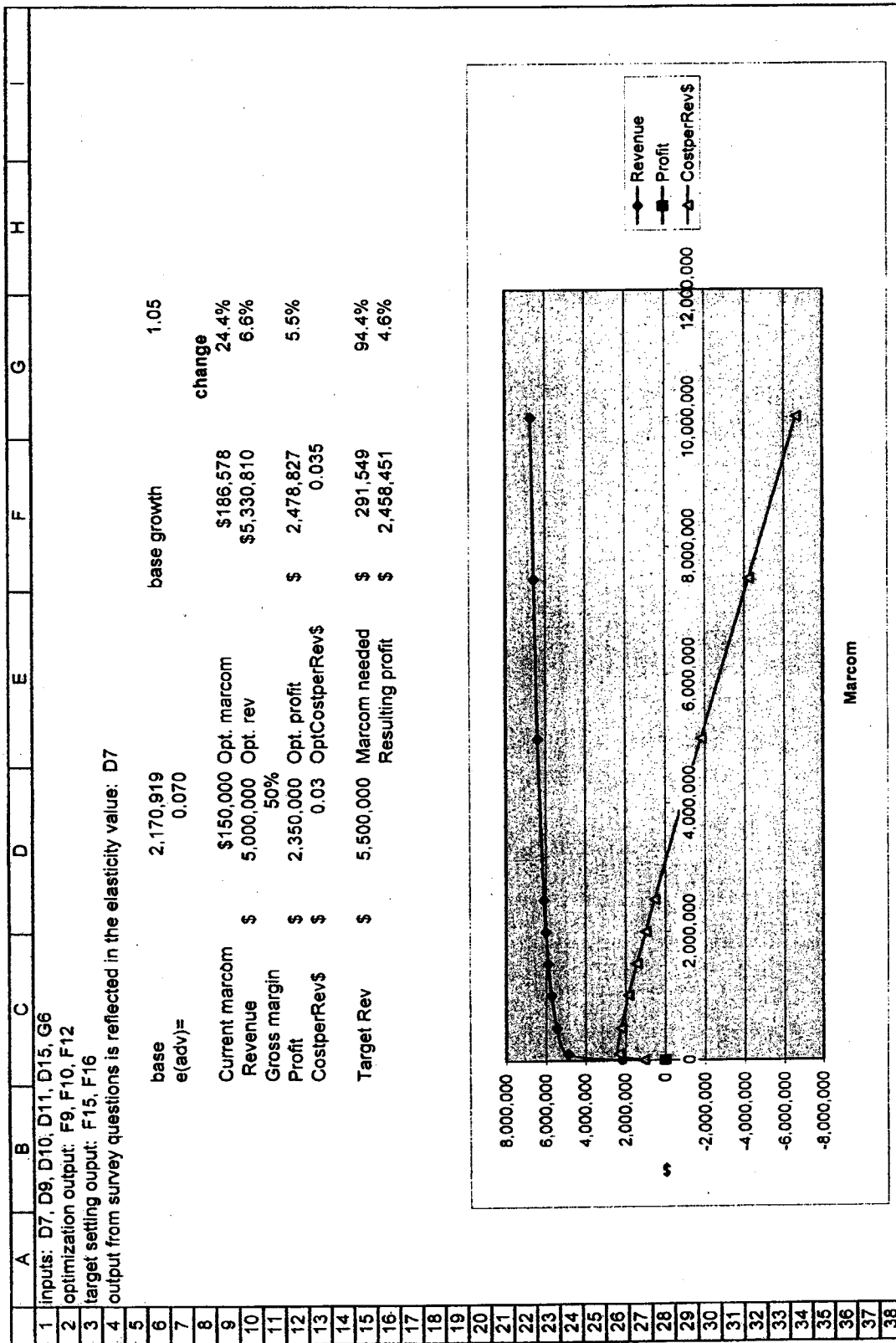


Figure 50

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	A	B	C	D	E	F	G	H	I
39									
40									
41	Example								
42			Marcom	Revenue	Profit	CostperRev\$			
43			1	2,170,919	1,085,458 \$	0.000			
44			100,000	4,860,082	2,330,041 \$	0.021			
45			500,000	5,439,657	2,219,829 \$	0.092			
46			1,000,000	5,710,099	1,855,049 \$	0.175			
47			1,500,000	5,874,488	1,437,244 \$	0.255			
48			2,000,000	5,993,986	996,993 \$	0.334			
49			2,500,000	6,088,347	544,174 \$	0.411			
50			5,000,000	6,391,040	-1,804,480 \$	0.782			
51			7,500,000	6,575,033	-4,212,484 \$	1.141			
52			10,000,000	6,708,781	-6,645,609 \$	1.491			
53									

Figure 51

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 08/85087

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06F 9/46 (2009.01)

USPC - 705/8

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8): G06F 9/46 (2009.01)

USPC: 705/8

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 705/1, 7, 8, 500; 706/11, 925; 700/90, 99

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

USPTO WEST (PGPB, USPT, EPAB, JPAB); Google Scholar

Search Terms Used: assigning or allocating or managing or prescribing resources, marking or sales or advertisement budget, total or weighted or average budget, lift factor or coefficient or parameter, adjusting or changing or updating budget etc.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2007/0106550 A1 (Umblijs et al.) 10 May 2007 (10.05.2007) (abstract, and para [0005]-[0023], [0041]-[0072], [0133]-[0152], [0161]-[0177])	1-13
A	US 2006/0010022 A1 (Kelly et al.) 12 January 2006 (12.01.2006)	1-13
A	US 2005/0091094 A1 (Wilson) 28 April 2005 (28.04.2005)	1-13
A	US 2004/0162749 A1 (Vogel et al.) 19 August 2004 (19.08.2004)	1-13

☐ Further documents are listed in the continuation of Box C.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

25 January 2009 (25.01.2009)

Date of mailing of the international search report

06 FEB 2009

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