An Integrated Bargaining Solution Analysis for Vertical Cooperative Sales Promotion Campaigns Based on the Win-Win-Win Papakonstantinidis Model

George S. Spais, Independent Consultant & Researcher, Hellenic Open University, Greece

ABSTRACT

Author’s intention was to examine the possibility to investigate win-win-win Papakonstantinidis model in order to develop an integrated bargaining solution analysis for vertical cooperative sales promotion campaigns. Based on previous theoretical extensions (Spais and Papakonstantinidis, 2011; Spais, Papakonstantinidis and Papakonstantinidis, 2009), this study presented an integrated bargaining solution analysis for cases of optimal allocation of a promotion budget in a cooperative sales promotion campaign in vertical marketing channels. This integrated bargaining solution analysis included: a) three (3) adjusted utility functions, considering the parameters of sales response budgeting method, the break-even sales analysis and the marketing channel member’s trade promotion goals; b) the referee solution, the optimal solution for the “three players” and the constraints; c) the definition of the third win in terms of a continuous sensitization process and perfect information; and d) the presentation of the potential outputs from a bargaining process regarding to the sharing of the cooperative sales promotion cost among “A”, “B” and “C” parties/players for different sales promotion offerings. Encouragingly, the review of the modern literature and the four (4) critical case studies of cooperative marketing programs confirmed the need for a win-win-win approach in cooperative sales promotion planning in vertical marketing channels.

Keywords: Cooperative Advertising; Cooperative Sales Promotion Campaign; Bargaining Solution Analysis; Win-Win-Win Papakonstantinidis Model

INTRODUCTION

We strongly believe that the well known frameworks for the study of a cooperative marketing campaign process by Fux, Mathieu and Myrach (2007), Merzenich (2005), Schumacher and Meyer (2004) may be seriously considered in order to study cooperative promotion management campaign process in vertical marketing channels in both planning and coordination level. AMA Dictionary (http://www.marketingpower.com/_layouts/Dictionary.aspx?dLetter=V) lists the term “vertical cooperative advertising”, (which seems to be used in the broader sense for all promotional activities), defining that it is the advertising in which the retailer and other previous marketing channel members (e.g., manufacturers or wholesalers) share the cost. Yan (2010) argued that cooperative promotion plays a strategically important role in marketing programs. Very close to Yan thesis, He, Prasad and Sethi (2009) underlined that cooperative promotion is an important instrument for aligning manufacturer and retailer decisions in marketing channels. On the other hand, bargaining seems to be critical for marketing channel coordination, e.g., for vertical cooperative promotion (Ailawadi et al., 2009; Huang, Li & Mahajan, 2002) or resolving channel member conflicts as well as for setting trade terms such as transfer special prices and margins, according to Coughlan et al. (2001). There is a significant literature on constructs such as bargaining problem (Xie & Wei, 2009) and tendency to conflict (Zhuang, Herndon & Zhou, 2005). In contrast, the normative and behavioral principles governing marketing channel dependency and coordination regarding the tendency to sovereignty, tendency to improvement and mistrust are relatively unexplored.
Encouragingly, as the literature reaffirms the critical role of bargaining in marketing channels (Coughlan et al., 2001), we strongly believe that the Papakonstantinidis win-win-win conceptualization as a bargaining solution analysis will receive a significant attention in the marketing literature in the nearest future.

According to Yan (2010), Huang, Li and Mahajan (2002), Li et al. (2002), Huang and Li (2001), cooperative advertising has been used by many industries for decades and continues to play a key promotional role for many manufacturers, retailers and retail customers. According to He et al. (2011), more than $25 billion was spent on cooperative advertising in the USA in 2007 compared to the total expenditures in 2000 that were estimated at $15 billion and $900 million in 1970 - nearly a four-fold increase in real terms and approximately 25%–40% of all manufacturers used this arrangement (SeyedEsfahani, Biazaran and Gharakhani, 2011; Nagler, 2006). The above evidence can be seriously considered in nowadays, if we monitor the latest trends in the media business, where many leaders of the media market characterize the cooperative advertising as the fastest growing category in media business. The successful case of the “MNG’s co-op contest” and its alliance with MultiAd Recas (MNG/Media New Group, one of the largest newspaper companies of USA) proves the above (see 346% increase from cooperative advertising sales in comparison with the previous year), considering that many media companies are struggling to find revenue solutions during this period of economic recession. This increase in spending volume and the overall increase in the significance of cooperative advertising seems to motivate scholars, researchers, authors and thinkers, globally to explore more the role and use of cooperative advertising in practice, the last years.

Although literature clearly shows the raising issue of reinforcing customers’ participation in marketing management activities of customer-centric organizations (such as: idea generation, idea screening, concept development and testing, process design, test marketing, building promotion campaigns etc.), (e.g. Awa, 2010; Hu, Jianyou & Na, 2010; Fang, 2008; Payne, Storbacka & Frow, 2008; Chen & Lu, 2007; Etgar, 2007; Lusch, Vargo & O’Brien, 2007; Galbraith, 2005; Hip & Grupp, 2005; Piller, 2005; Alam, 2002; Wind & Rangaswamy, 2001; Sheth, Sisodia & Sharma, 2000; Johne & Storey, 1998; Sundbo, 1997; Youngdahl & Kell, 1997; Wilkstrom, 1995; Dabholkar, 1990; Bowen, 1986; Lovelock & Young, 1979) unfortunately there is no theoretical framework including the customer (as a “third party” or “third player”) in a cooperative marketing or promotion planning process. The concept of including the third party, as the third “win” in a traditional “win-win” approach for cooperative marketing and promotion campaigns was presented for the first time in the marketing literature in 2009 (Spais, Papakonstantinidis & Papakonstantinidis, 2009).

Research aim, initial assumption and research question

The intention is to examine the possibility to investigate win-win-win papakonstantinidis model in order to develop an integrated bargaining solution analysis for vertical cooperative sales promotion campaigns. Based on previous theoretical extensions (Spais & Papakonstantinidis, 2011; Spais, Papakonstantinidis & Papakonstantinidis, 2009), this study will present an integrated bargaining solution analysis for cases of optimal allocation of a promotion budget in a cooperative sales promotion campaign in vertical marketing channels. This integrated bargaining solution analysis will include: a) adjusted utility functions, considering the parameters of sales response budgeting method, the break-even sales analysis and the marketing channel member’s trade promotion goals; b) the referee solution, the optimal solution for the “three players” and the constraints; c) the definition of the third win in terms of a continuous sensitization process and perfect information; d) the presentation of the potential outputs from a bargaining process regarding to the sharing of the cooperative sales promotion cost among “A”, “B” and “C” parties/players for different sales promotion offerings; and e) the “sensitized game” in order to deepen understanding of the bargaining characteristics. The basic initial assumption of this study is that different problems met in cooperative promotion planning requires adjusted bargaining solution analyses based on the win-win-win approach (including the “third win” for customers) and should not based on the traditional win-win.

According to the available empirical evidence, the SMEs seem to be oriented to the Sales School rather than the Communication School regarding to the goals of promotion campaigns (Vrontis, Thrassou & Czinkota, 2011; Tsiotsou, Rigopoulou & Kehagias, 2010; Bazini, 2008; Demetrio, 2008; Elmazi & Bazini, 2008; Thrassou & Vrontis, 2006; Huang & Brown, 1999) and sales response budgeting method seems that becomes quite popular (Akanbi & Adeyeye, 2011; Du, Hu & Ai, 2007; Miller & Pazgal, 2007; Thrassou & Vrontis, 2006; Little, 2004; Luxton, Hodge & Reid, 2002). Based on the above, the research question is if the integrated bargaining solution
analysis of the upgraded ‘win-win-win spais-papakonstantinidis-papakonstantinidis’ model can be proven of high theoretical and practical value for the understanding and implementation of such analysis for vertical cooperative sales promotion management decisions?

THEORETICAL AND CONCEPTUAL FRAMEWORK

The win-win-win papakonstantinidis model is a methodological tool for conflict resolution, especially in the case of decision-making, or in forming “instant reflection winning strategies” the BARGAIN (which is the frame). For the needs of the study, we adjust the conceptualization, in order to deal with the development of vertical cooperative promotion management decisions. It has to prove that building a strong competitive advantage in a market mainly depends on the trust links among the partnerships in the vertical marketing channels.

Cohesion in partnership in the supply chain may be measured by the diversification Rate (R*) from strict rules: from this point of view, customers intervention should be useful, so as to diversify these “rules” at customized level adjusting them to their needs, wants, consuming identity, including communication codes, customs, ethics, culture. The win-win-win methodology, as a marketing channels’ development model, should facilitate customers to “readjust” bargaining rules in each market, through a sensitization process: Customers are defined as a discrete spatial/cultural entity at its sensitization process’ limit.

Definitions and assumptions

Win-win perception: It is based on when each side of a dispute feels they have won. Since both sides benefit from such a scenario, any resolutions to the conflict are likely to be accepted voluntarily. The process of integrative bargaining aims to achieve, through cooperation, win-win outcomes.

Win-win-win perception: It is based on the assumptions of information accessibility and diffusion that characterize the modern globalized societies as well as the complexity in the decision-making values that the “third win” (the “C” factor) could unlock a series of obstacles. Another assumption is that the individual (although his/her doubts) must believe that there is a “third” distinguishable part in the bargain (based on behaviorist analysis through the “neural networks”). Sensitization is introduced (regarding the integrated information) as a main variable of the bargain (the “third invisible part of the negotiation”/ the “C” factor). Sensitization” may concerned as information, thus changed the 2 parts imperfect information, into a complete information as Harsanyi’s (1973) conditional probabilities claims. It is about an encephalic hard process in the bargain, which smoothes the angles of conflict or the shares/utilities (according to Nash). The “third win” functions as an umbrella, which conjoin different “dipolar relationships”. Especially, in the business context, it must be understood that the existence of a “distinguishable entity”, depends upon the degree of understanding and sensitization of knowing better the other polar (the partnerships in a supply chain), even through pecuniary values.

Bargaining problem. A two-person bargaining situation involves two individuals (Von Neuman & Morgenstern, 1947), who have the opportunity, either to be competitors to each – other (win-lose), or to make coalitions, or even to create pure individual strategies, based on bargainers’ instant reflection behavior (win-win) (Crawford, 1997; Aumann, 1987; Arrow & Debreu, 1954; Nash, 1950). Nash (1951) focused on payoff shares/utilities combination. Bargain may result in either agreement or disagreement (Nash, Nasar & Kuhn, 2001). Utility expresses the constraint or the “fear factor” of disagreement for the negotiator who desires negotiations to be led in agreement more than the other one. Who needs more, negotiation leading to an agreement expects more utility, but – probably there is a loss in terms of “shares”, due to lack of risk. On the contrary, who is indifferent about “agreement” or expects less utility per unit, has- to win in “shares” under the dogma “the more risk, the more profit” (Crawford, 1997). So, bargaining problem is mainly based on “Utility Theory” – a mathematical theory of the Neoclassical School of Thought, able to explain (satisfactory) the individual expectations/anticipations, of a possible outcome. Usually, it is expressed in the form of a mathematical function: f(u) = u^β. Individual winning strategies are corresponding 1-1 to utilities U (A) and U (B) (Chun & Thomson, 1990). Utility theory of the individual is mainly based on the “concept of anticipation”. In the “two-person utility theory”, two (2) individuals in a bargain have the opportunity to collaborate for mutual benefit in more than one way. In its simple/initial version, no action, taken by one of the two individuals without the consent of the other can affect the well-being of the other one, but in real terms, there is only ONE decision, taken by the individual involved in a bargain.
Tendency to conflict. Refers to the tendency to competition between the two parts of the bargain with different expectations and controversial interests, results from the combination of: a) the case of the distinguishable entity, b) mistrust of each distinguishable entity, and c) the tendency to improvement. Based on the above, the motive of individual benefit leads with mathematic precision to the conflict, the tendency to sovereignty and from there to a competition climate, which is the corner stone of our economic system.

Tendency to sovereignty. The reason for which it is repeated is stressing the importance of “the need” for sovereignty, which finally “shapes” the expectations. Therefore, we have the following paradox: the expectation determines the motive (individual benefit, sovereignty, competition etc.) and simultaneously “is determined” by the internal need of dominance-sovereignty, something that characterizes our natural world.

Mistrust of each distinguishable entity. Deals with the intentions of the other. Two distinguishable entities have different expectations; otherwise, the expectation of each one would be identified with the expectation of the other. Therefore, there would not be a bargaining and, of course, no “conflict” and no “distinguishable entities”. If we had two “players” with precisely opposite interests and expectations, then the (A) would doubt the intentions of (B) and (B) would doubt the intentions of (A), (the “never-ending circle of expectations” by Varoufakis, 2001).

According to Papakonstantinidis (2011; 2007; 2004a; 2004b; 2003; 2002) and the updated conditions by Spais and Papakonstantinidis (2011), describing the bargaining situations of the win-win-win papakonstantinidis model in cooperative sales promotion campaigns are summarized in Table 1:

Table 1: The assumptions of the win-win-win spais-papakonstantinidis model

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Description</th>
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<tbody>
<tr>
<td>1. In a bargaining situation, there are two distinguishable entities</td>
<td>These distinguishable entities, with different expectations, should be</td>
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<td>with different perceptions, attitudes, expectations and interests.</td>
<td>motivated (for individual benefit), so that they are activated and</td>
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<tr>
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<td>they transform the opposite expectations in opposite interests and</td>
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<td>be motivated (for individual benefit), so that they are activated and</td>
<td>from there in opposite “strategies of victory, or sovereignty”.</td>
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<td>they transform the opposite expectations in opposite interests and</td>
<td>2. Tendency sovereignty and the tendency of conflict are</td>
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<td>from there in opposite “strategies of victory, or sovereignty”.</td>
<td>strengthened because of the bargaining problems and according to the</td>
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<td>The win-win-win theoretical model suggests that information accessibility</td>
<td>theory only a “third win” (the “C” factor: the customer) could</td>
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<td>and diffusion is crucial because of the relation between knowledge and</td>
<td>unlock these series of obstacles. The win-win-win theoretical model</td>
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<td>behavior (the “interaction on bargain-behavior”). The different examples</td>
<td>suggests that information accessibility and diffusion is crucial</td>
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<td>of knowledge types’ synthesis and the resulted 1-1 behavior may lead</td>
<td>because of the relation between knowledge and behavior (the</td>
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<td>brand manufacturers to understand the bargain-behavior assumption, based on</td>
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<td>information given. From the other hand, brand manufacturers’ information</td>
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<td>may be the dominant result of this cross-related knowledge types:</td>
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<td>socialization, sensitization, externalization etc.. Thus, the hypothesis</td>
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<td>game can be replaced by a game “where nature first conducts a lottery in</td>
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<tr>
<td>extension is mainly based on the “Harsanyi’s transformation”, with a</td>
<td>game can be replaced by a game “where nature first conducts a lottery in</td>
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<tr>
<td>difference: original bargain between two can be replaced by a game, where</td>
<td>accordance with the basic probability distribution”. In addition, the “C”</td>
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<td>the C Factor first conducts a lottery in accordance with the basic</td>
<td>factor should be seen as the result of a “new” suggested bargaining</td>
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<td>probability distribution”. In addition, the “C” factor should be seen as</td>
<td>behavior, coming from sensitization process. In such a context, the C</td>
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<td>the result of a “new” suggested bargaining behavior, coming from</td>
<td>party/player is given in terms of a continuous sensitization process,</td>
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<td>sensitization process. In such a context, the C party/player is given in</td>
<td>tending to sensitization itself, inside the customers. The heart of the</td>
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<td>terms of a continuous sensitization process, tending to sensitization itself</td>
<td>analysis for a bargaining solution in a cooperative promotion campaign must</td>
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<td>inside the customers. The heart of the analysis for a bargaining solution</td>
<td>be the configuration of how the “sensitized game” (G**) is formed and</td>
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<td>in a cooperative promotion campaign must be the configuration of how the</td>
<td>developed.</td>
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<tr>
<td>“sensitized game” (G**) is formed and developed.</td>
<td>3. The “C” party/player (for customers) produces a new behavioral type that</td>
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<td>(p, 1-p) into a trinomial distribution, (p1, p2 and 1-p1-p2) combined</td>
<td>with 3 utility function “prices”.</td>
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<td>4. Interaction on bargain-behavior is one of the prevailing assumptions of</td>
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<td>the model, in accordance to the literature that evidence the strong relation</td>
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<td>between knowledge and behavior.</td>
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<td>between knowledge and behavior.</td>
<td>5. As the managerial attitudes of brand manufacturers for customers’</td>
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<td>participation in marketing planning activities impact the perceived value</td>
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<td>of the triple pole approach, this means that brand manufacturers see an</td>
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<td>adding value through the collaboration with the retailers, because there</td>
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<tr>
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<td>are strongly interested in accomplishing customer relationship goals. Based</td>
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<td>on this observation, we can safely interpret that the customers (as the “C”</td>
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<tr>
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<td>party/player) produce a new behavioral type that converges the interest of</td>
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<tr>
<td>(as the “C” party/player) produce a new behavioral type that converges the</td>
<td>a brand manufacturer and motivate him for building marketing alliances in</td>
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<tr>
<td>interest of a brand manufacturer and motivate him for building marketing</td>
<td>vertical marketing channels.</td>
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<tr>
<td>alliances in vertical marketing channels.</td>
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</tbody>
</table>
According to Spais, Papakonstantinidis and Papakonstantinidis (2009), the importance of this theory is arisen from the transfer of the pure trust theory to a marketing context, which can be achieved in order to analyze marketing phenomena of bargaining especially in cooperative promotion programs characterized by conflict and mistrust. Marketing phenomena refer to understanding of the bargaining problem resolution and the types of negotiation in which the marketing channel member and the business dispute the price, which will be communicated and the exact nature of the transaction that will take place and eventually come to an agreement in terms of a promotion management strategy.

The theory considers the information accessibility and diffusion that characterize the modern marketing environment, and the complexity in the decision-making of marketing channel members values that the “third win” (the “C” factor: the customer) could unlock a series of obstacles. The individual (although his/her doubts) must believe that there is a “third” distinguishable part in the bargain. The ‘win-win-win’ papakonstantinidis’ theory supports the significance of the tendency to sovereignty, the tendency of conflict, which results from the combination of: a) the case of the distinguishable entity, b) mistrust of each distinguishable entity, and c) tendency to improvement in a vertical marketing channel.

Based on the assumptions of the ‘win-win-win papakonstantinidis’ conceptualization, the limitation in contexts such as the cooperative promotion programs, as identified in previous study (Spais, Papakonstantinidis & Papakonstantinidis, 2009) is that utility assessment and cost-utility analyses such as costs/quality-adjusted expected profits model from the partnership for A and B parties/players and the C party/player (for customers/consumers) are frequently presented to demonstrate the value of many utility options in the marketing literature. The “C” party/player produces a new behavioral type that converges the interests of both sides, by converting a binomial distribution (p, 1−p) into a trinomial distribution, (p1, p2, 1−p1−p2) combined with 3 utility function “prices” (Papakonstantinidis, 2011). However, utility indicators require various methods that introduce significant methodological challenges, which directly influence the results and ensuing cooperative promotion management decisions in vertical marketing channels.

LITERATURE REVIEW

Based on the search in the Scopus Database (the largest citation database), we identify thirty-one (31) published research works the last 38 years (from 1973-2011) regarding to the research topic “cooperative advertising” (which was included in the titles of the works). The results are quiet interesting, as the following figures (1, 2, 3 and 4) show:

Figure 1: Published research works for “cooperative advertising” topic in a chronological order

Figure 2: Published research works for “cooperative advertising” classified according to publication type
The above figures show that the research activity about the topic of cooperative advertising seems to be at a very low level at the decades '70s, '80s and '90s. A significant increase of the research interest is presented after 2005. Is quiet remarkable that published research works in cooperative advertising are presented in publications from different subject areas.

According to AMA’s definition for the term “vertical cooperative advertising”, presented in the section of “Introduction”, bargaining seems to be a vital component of the term, it’s quiet impressing that only eight (8) published research works in “cooperative advertising” are covering bargaining issues research themes. A chronological order of these research works are presented in Figure 4. Table 2 summarizes information about the focus of these works, the publication names and their impact.

<table>
<thead>
<tr>
<th>Title of the paper/focus</th>
<th>Author(s)</th>
<th>Publication year</th>
<th>Publication name</th>
<th>Impact (no. citations till Nov.2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordination via cost and revenue sharing in manufacturer-retailer channels</td>
<td>Kunter, M.</td>
<td>2012</td>
<td>European Journal of Operational Research (article in press)</td>
<td>0</td>
</tr>
<tr>
<td>A game theoretic approach to coordinate pricing and vertical co-op advertising in manufacturer-retailer supply chains</td>
<td>Seyedesfahani, M., Biazaran, M., Gharakhani, M.</td>
<td>2011</td>
<td>European Journal of Operational Research</td>
<td>0</td>
</tr>
<tr>
<td>Cooperative advertising, pricing strategy and firm performance in the e-marketing age</td>
<td>Yan, R.</td>
<td>2010</td>
<td>Journal of the Academy of Marketing Science</td>
<td>1</td>
</tr>
<tr>
<td>Coordinating advertising and pricing in a manufacturer-retailer channel</td>
<td>Xie, J., Wei, J.C.</td>
<td>2009</td>
<td>European Journal of Operational Research</td>
<td>12</td>
</tr>
<tr>
<td>Game analysis of cooperative advertising and ordering strategies in a supply chain under demand uncertainty</td>
<td>Fu, Q., Zeng, S.-Q.</td>
<td>2008</td>
<td>Xitong Gongcheng Lilun yu Shijian/System Engineering Theory and Practice</td>
<td>0</td>
</tr>
<tr>
<td>Coordination of cooperative advertising in a two-level supply chain when manufacturer offers discount</td>
<td>Yue, J., Austin, J., Wang, M.-C., Huang, Z.</td>
<td>2006</td>
<td>European Journal of Operational Research</td>
<td>40</td>
</tr>
<tr>
<td>Cooperative advertising, game theory and manufacturer-retailer supply chains</td>
<td>Li, S., Huang, Z., Zhu, J., Chau, P.</td>
<td>2002</td>
<td>Omega</td>
<td>38</td>
</tr>
<tr>
<td>An analysis of manufacturer-retailer supply chain coordination in cooperative advertising</td>
<td>Huang, Z., Li, S., Mahajan, V.</td>
<td>2002</td>
<td>Decision Sciences</td>
<td>38</td>
</tr>
</tbody>
</table>

Based on the analysis of 56 published research works (Spais, Papakonstantinidis and Papakonstantinidis, 2009), we can summarize the following findings:
It seems that cooperative bargaining solution analysis results based on mathematical models can show us how to share the profit gain between the two parties in a vertical marketing channel and determine the associated pricing and advertising policies for both parties. The bargaining problems are the:

- complex issue of promotion activities,
- reputation that both parties bring to the bargaining table, and
- perceived uncertainty in the lateral environment (competitive sector).

Regarding the tendency to conflict in vertical marketing channels: it seems that communication is the main source of conflict followed by different expectations and organizational structure.

Regarding the tendency to sovereignty in vertical marketing channels: there is a growing dominance of large retailers, which alter the traditional channel incentives.

Regarding the tendency to improvement for each member of the vertical marketing channel: it seems that bargaining without side payments is not effective as cooperation at reducing beggar-thy-neighbor effects, it is a welfare-improving alternative to non-cooperation and is likely more practical in many situations.

There is mistrust between the members of the vertical marketing channels.

Modern empirical evidence focus on the Customer as the third “player”/“pole” of the bargaining solution in cooperative sales promotion management process between the business and the marketing channel member (e.g. Gabrielsena and Roth, 2009; Bontems, Dhar and Chavas, 2007).

Customer as the third “party”/“player”/“pole” of the bargaining solution in cooperative sales promotion management process between the business and the marketing channel member

According to Misra and Mohanty (2008), bargaining can be seen as the process of distributing the gains obtained from trade among the participants of the trade. In the present context, the gains from trade (between the business or the manufacturer and the marketing channel member) are the total marketing channel profits. Since the wholesale price determines the proportion in which the gains from the trade (total marketing channel profit) are split between the marketing channel members, this wholesale price turns into the decision variable that is bargained over by marketing channel members. An alternative approach to measure bargaining power based on a Nash Bargaining Model between manufacturers and retailers has been recently proposed in the literature (Draganska, Klapper and Villas-Boas, 2010; Misra and Mohanty, 2008; Iyer and Villas-Boas, 2003).

There are two solution concepts for the above-mentioned bargaining problem - the co-operative approach and the non-cooperative approach (Muthoo, 1999). The asymmetric Nash bargaining solution is the cooperative approach to bargaining problems in which the asymmetry in bargaining power between the parties is taken into consideration. Encouragingly, modern empirical evidence show the raising importance of the customer to be considered as the “third party” in delegated bargaining in vertical marketing channels (between the manufacturer and the marketing channel member), (e.g. Gabrielsena & Roth, 2009; Bontems, Dhar & Chavas, 2007).

Optimal allocation of promotion budgets, the sales response as a budgeting method and break even sales analysis as parameters influencing bargaining solution analyses of cooperative sales promotion campaigns

The optimal allocation of the promotion budgets is an issue of practical importance (Albadvi & Koosha, 2011; Sriram & Kalwani, 2007). According to Gómez, and Rao (2009) and Gómez, Rao and McLaughlin (2007) the theme categories in promotion management can be classified as follows: i. the explanation of the growth; ii. the allocation of promotion budgets; iii. the extent of pass-through; iv. the balance of power between the business and the marketing channel members.

Regarding to the extent of marketing channel’s member pass-through it seems that it ranges widely depending on the product category and retail price zone (e.g. Besanko, Dubé, and Gupta 2005; Tyagi, 1999). According to Cannondale Associates (2003), only 13% of manufacturers reported receiving a good value for their promotion expenditures and, furthermore, claimed that only about half of trade funds were actually passed on to consumers. Kumar, Rajiv, and Jeuland (2001) reported higher retail margins from promotion budgets depend on the product market characteristics, such as the retailer’s clientele and the heterogeneity in consumer search costs, and on frequency and budget of manufacturer deals. For example, Gómez, and Rao (2009), Drèze, and Bell (2003) report
that marketing channel members prefer discount-based promotions flexibility and manufacturers prefer performance-based promotions. Regarding to the research thrust related to the inefficient resource allocation due to the relative power between the business and the marketing channel member as discussed in research works (e.g. Stet, 2008; Paik & Bagchi, 2007; Scheffman, 2002; Sullivan, 2002), correlated to the distortions of demand because of the promotion campaigns.

According to Sriram and Kalwani (2007) promotions besides their strong positive effect on a brand’s performance, they may also have some detrimental effects that need to be accounted for while allocating the marketing budget. Based on this observation, Naik, Raman and Winer (2005) consider interaction effects between advertising and sales promotions in addition to modeling their main effects. Regarding to the role of the budgeting method to the bargaining solution analysis for optimal budgeting in a cooperative sales promotion campaign, Dant’s and Berger’s study (1996) models the cooperative determination of franchisor’s and franchisee’s advertising contributions under conditions of differing perceptions of the sales response functions to advertising. The authors report such decisions are frequent source of conflict and the disagreements persist because of the win-win potential of vertical cooperative advertising is not well appreciated. Ending, regarding to importance of break-even sales analysis in bargaining solution analyses of cooperative sales promotion campaigns, it seems that indeed it plays a very crucial role (e.g. Roma & Perrone, 2010; Misra, 2008; Yue et al., 2006; Dant & Berger, 1996; Ailawadi, 2001; Morton & Zettelmeyer, 2000).

Trade promotion goals influencing bargaining solution analyses of cooperative sales promotion campaigns

The issue of trade promotion goals seems to be underlined in terms of bargaining process in a cooperative sales promotion campaign adopting win-win trade promotion approach by Drèze and Bell (2003). According to Sigué (2008), the long-term effects of promotions on sales are increasingly linked to the supposed shift of economic power within channels from manufacturers to retailers. However, formal knowledge about how they influence channel decisions under different promotional arrangements and the distribution of channel profits remains very sparse. Sigué’s findings indicate that retailers always invest in retailer promotions, while manufacturers may find it optimal not invest in consumer promotions. Economic power shifts from manufacturers to retailers when consumer promotions significantly expand the baseline demand in the long-term. Otherwise, manufacturers remain more powerful. Trade promotions or other profit-transfer mechanisms may be indispensable in easing conflicts over who should undertake promotions, especially when these promotions substantially increase future sales. Based on the literature review findings, we extend the three adjusted utility functions (1), (2) and (3) incorporating the parameters of sales response budgeting method, the break-even sales analysis and the independent variable of the trade promotion goals that lead us to the utility functions (4), (5) and (6). The extended adjusted utility functions and the constraints (8), (9) and (10) derived from the win-win-win papakonstantinidis model are presented in the next section.

METHODOLOGY

Critical cases for the study of promotion and promotion management phenomena seems to gain more and more the research interest by the members of the academic community for he marketing discipline as they realize the value of becoming critically aware of the practical wisdom of promotion events and relative managerial practices, in accordance to the critical case study conceptualization by Flyvbjerg (1991).

Research method, unit of analysis and selection of critical cases

The investigation of an integrated bargaining solution analysis for vertical cooperative sales promotion campaigns based on the win-win-win papakonstantinidis model is a non-researched area. In order to determine win-win-win papakonstantinidis theoretical perspectives of the bargaining solution analysis for vertical cooperative sales promotion campaigns (regarding to promotion costs allocation), it is incumbent upon marketing scholars and researchers to take the above perspective, which allows these issues to be arisen. The use of the case study is considered to be of high value in our analysis because in the empirical studies none of promotion phenomena are very well understood (Cutler, 2004). The research method of case study is introduced in order to reveal very new constructs and to attempt to establish an initial understanding of the constructs and their relationship with other
constructs (Yin, 1994). Human activity is the basic unit of the analysis of the critical case. Incorporates notions of understanding such as mediation, motivation and culture. We believe that the four (4) cases of cooperative marketing programs may give valuable information. Information that deepen our understanding of the characteristics of vertical cooperative sales promotion campaigns and, thus, the phenomenon studied can become more visible, as Stake (1994) argued. The different aspects of a context, from which a particular problem situation originates, can become increasingly visible and more accessible for a promotion management researcher (e.g. Spais, 2010; 2011). Based on Uden, Valders and Pastor's work (2008), we adopt the following linear process in order to gather the data in the critical cases: i) clarification of the purpose(s) of the activity system; ii) analysis of the activity system and production of the activity system; and iii) analysis of the activity structure.

Evaluation and analysis of the data

The data of activity structure analyses resulted from the performance of four (4) critical case studies analyses from September 1 to September 22, 2011 [in accordance with the methodological guidelines for qualitative content analysis in case study research of Kohlbacher (2006)] utilizing the conceptual categories of —activity system for the understanding the nature and the characteristics of cooperative marketing and advertising campaigns. The findings of the cases’ analysis are presented in the following section.

FINDINGS

Table 3 presents the summarized details in accordance to the unit of analysis described above:

Table 3: Summary of data analysis of the four (4) cases of cooperative marketing programs based on the activity system structure in order to deepen the understanding of the characteristics of vertical cooperative sales promotion campaigns

<table>
<thead>
<tr>
<th>Case:</th>
<th>Destination Management Organizations (DMOs) and Small and Medium-Sized Tourism Enterprises (SMTEs) - Cooperative CRM in Alpine Tourist Destinations</th>
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<tbody>
<tr>
<td><strong>Title of the cooperative marketing program:</strong></td>
<td>“CRM in Alpine Tourist Destinations”</td>
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</table>

**Background:** The success of tourist destinations depends largely on effective relationships between destination management organizations (DMO) and enterprises in alpine regions these are mainly small and family managed service providers. The use of internet technologies offers vast potential for developing a process of cooperative promotion of a region in order to attract travellers (Palmer & McCole, 2000, Williams & Palmer, 1999). Whilst online booking and reservation services can be said to have been accepted by service providers, the ‘e-Business Scoreboard 2005: Tourism’ indicates that technologically enhanced customer relationship management (CRM) is not ‘widely diffused among the smaller firms’. However, according to an explorative study in the tourism sector in Austria and Switzerland, expenditure on electronic marketing instruments, such as e-mail marketing, is expected to increase by up to 30 % from the present state. A vast potential for improvement shows up in the performance measurement of marketing communication. In Switzerland and Austria 40% of the hotels, do not have processes for measuring the success of marketing activities. In addition to enterprise-specific marketing activities, cooperative marketing arrangements are quite common in tourist destinations and offer clear advantages for all involved participants.

**Source:** Cooperative Customer Relationship Management (CRM) in Alpine Tourist Destinations
Available: http://is2.lse.ac.uk/asp/aspecis/20070057.pdf

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<th>subject</th>
<th>tool</th>
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<td>DMO</td>
<td>Internet technology is a major enabler for collaboration in customer-oriented processes; in this case a corporate CRM infrastructure for tourist destinations</td>
<td>Internet technology is a major enabler for collaboration in customer-oriented processes; in this case a corporate CRM infrastructure for tourist destinations. Besides this crucial technological driver, the need for an increased customer-orientation in marketing activities through the</td>
<td>In the current model of collaboration in marketing campaigns, the service providers and the destination management organization determine a common understanding about the strategic objectives and their roles in the destination network. From a process perspective, it</td>
<td>The campaign management system supports the planning of marketing activities by defining parameters such as target group, content, or schedules for the individual campaigns, and the service providers which could be invited to participate.</td>
</tr>
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</table>
utilization of knowledge about customers forces a change in marketing communications. This adaptation is required in a context of increased competition among tourist destinations and augmented problems of small- and medium tourism enterprises (SMTE) in handling customer-oriented processes in an electronic environment. By implementing a cooperative CRM initiative, a lacking motivation to cooperate of SMTE and technical interoperability of existing information systems, have to be considered as impedimental factors.

is defined how the involved actors are planning, executing and analyzing marketing campaigns. These processes are supported by an inter-organizational CRM infrastructure, consisting of analytical, operational and collaborative system components.

system supports development of a campaign using existing design templates, with which new campaigns can be more efficiently prepared. The campaign content is compiled in the form of blocks in a separate design template and linked with suitable keywords. The system compares these keywords with the available customer information and generates personalized content for each customer in the target group. In addition to obtaining further information on customer interests, the relevance of individual articles or offers can be determined using click-tracking.

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<tr>
<th>Case: IBM</th>
<th>Project Description</th>
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<tr>
<td>IBM and Nokia Siemens Networks designed and built a SOA-based service creation and delivery platform that enables Globe Telecom (from Philippines) to rapidly and cost-effectively create service offerings from reusable service components.</td>
<td>Globe Telecom needed to reach a new level of agility in the creation and management of promotional content. Expected one-year payback period; 600 percent increase in promotion.</td>
</tr>
</tbody>
</table>
Solution Components

**Framework**
- Service Provider Delivery Environment (SPDE)

**Software**
- IBM WebSphere
- IBM Tivoli
- IBM Rational

**Servers**
- IBM BladeCenter

**Services**
- IBM Sales and Distribution
- IBM Software Group

Smarter Telecommunications—Gaining tactical agility with smarter promotions

- **Instrumented**: Information delivered from the customer handset enables Globe to measure the success of promotional activity and ongoing behavior.
- **Interconnected**: Using SOA to abstract connections between the network and IT systems enables Globe to dramatically simplify service creation.
- **Intelligent**: Using information gathered from handsets, Globe is able to identify the optimal service promotion for each customer—and the best time to deliver it.

<table>
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<th>Service Offerings</th>
<th>Effectiveness</th>
<th>Awareness</th>
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<td></td>
<td>more than 95 percent reduction in the time and cost of developing new promotions</td>
<td>Using the Toolbox solution, Globe’s marketers can configure triggers that automatically detect when, for example, a customer’s promotional use of three hours worth of high-speed data service is minutes from expiring. At that point, Globe can deliver a personalized, time-sensitive marketing promotion—the right offer, at the right time—thereby substantially improving uptake rates, and minimizing a customers chance of letting their balance reach zero, and ultimately improving market share.</td>
</tr>
</tbody>
</table>

Case: New York State Energy Research and Development Authority (NYSERDA)

Title of the cooperative marketing program: “Energy $mart program”

Background: New York State Energy Research and Development Authority (NYSERDA), a public benefit corporation funded by state utility-ratepayer System Benefits Charges, operates the New York Energy $mart initiative. This initiative includes an Home Performance with Energy Star (HPwES) program that encourages comprehensive energy upgrades in existing one- to four-unit residential homes through an independent network of home-improvement contractors accredited by the Building Performance Institute (BPI). To participate, a homeowner contacts a contractor from the list of approved contractors available on the Energy $mart website, and the contractor then serves as a one-stop shop—performing a home energy assessment, installing energy improvements, and offering HPwES financing and rebate options. NYSERDA offers a range of incentives to encourage contractors to participate in the HPwES program including discounts on BPI certification, subsidies for diagnostic equipment, listing on the Energy $mart website, access to consumer financing options and incentives, use of NYSERDA marketing materials, referrals/leads from NYSERDA’s public awareness campaigns, and co-operative advertising reimbursements. Most of these incentives are performance-based, which allows NYSERDA to encourage scale, reward performance, and maximize its resources.
While contractors are the key point of customer contact, Energy $mart runs an extensive marketing campaign (involving television, radio, newspaper, direct mail, public relations, and special events) to build recognition for HPwES and other NYSERDA programs encouraging residential energy efficiency. NYSERDA’s HPwES advertising is intended strictly to help catalyze the development of a robust market for the HPwES program, not to extend NYSERDA’s own brand. Contractors mention that this singular focus has contributed to the success of establishing the HPwES brand in New York. NYSERDA couples its general HPwES marketing with cooperative advertising incentives that reimburse contractors for a portion of their own advertising expenses. The reimbursement rates and caps are a function of the number of upgrades a contractor completes and range from 25% to 50% of a given advertising expense up to a maximum of $150,000 annually per contractor.

**Point-of-Sale Training and Messaging**

NYSERDA operates a one-day training program in sales and marketing that teaches contractors skills on communicating the importance of HPwES and a whole-house approach to energy efficiency. This training focuses on the customer experience and addresses some of the key hurdles to converting leads into jobs. Experienced whole-home energy-efficiency contractors note that programs often spend a lot of time on technical training but not nearly enough on showing contractors how to make a living performing energy efficiency improvements. HPwES programs typically add overhead costs to businesses and contractors must be able to educate homeowners and communicate the benefits of a whole-home approach to energy efficiency to beat out their competitors. While a number of messages have been explored, the Get Energy $mart and HPwES advertising campaigns focus on saving money. NYSERDA has done extensive focus-group analysis and found that about three in four people say that understanding the amount of money is most effective in encouraging them to invest in home energy improvements.

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<tr>
<td>New York State Energy Research and Development Authority (NYSERDA)</td>
<td>HPwES cooperative advertising incentives</td>
<td>Allow NYSERDA to leverage its advertising dollars and control the message while harnessing contractors to sell the program. Contractors benefit from the financial assistance and NYSERDA’s broader HPwES branding campaign.</td>
<td>Leveraging contractors’ ability to sell home energy upgrades</td>
<td>Since 2001, over 32,000 home energy upgrades worth more than $247 million have been completed through HPwES by approximately 250 participating contractors. These improvements have saved over 22 million kWh and over 1 million MMBTU to date. All of the program’s active contractors have used NYSERDA incentives to earn BPI certifications. Since 2003, HPwES penetration of New York’s home remodeling market has climbed from less than 0.5% to approximately 3% annually. NYSERDA has paid almost $3.5 million to contractors since the cooperative advertising initiative began in 2001. This public spending enhances contractors’ ability to convert marketing expenditures into jobs and has been leveraged into over $10 million of total contractor spending on outreach. Over 20% of active HPwES contractors used the cooperative marketing in 2010. NYSERDA is considering developing templates that will create uniformity and benefit smaller contractors, who have been less active.</td>
</tr>
</tbody>
</table>
in using these incentives. In addition to helping contractors piggyback on NYSERDA’s HPwES branding efforts, these incentives help them market their services directly to customers and capitalize on the inherent value of the contractor-customer relationship in recruiting new customers and converting leads into comprehensive upgrades.

Case: Hewlett-Packard (HP)

**Title of the cooperative marketing program:** “HP Online-To-Store”

**Background:** HP is an American multinational information technology corporation headquartered in Palo Alto, California, USA that provides products, technologies, software’s, solutions and services to consumers, small- and medium-sized businesses (SMBs) and large enterprises, including customers in the government, health and education sectors. Bill Hewlett and Dave Packard founded the company in a one-car garage in Palo Alto. Currently, HP is the world’s leading PC manufacturer, operating in nearly every country. It specializes in developing and manufacturing computing, data storage, and networking hardware, designing software and delivering services. Major product lines include personal computing devices, enterprise, and industry standard servers, related storage devices, networking products, software and a diverse range of printers, and other imaging products. HP markets its products to households, small- to medium-sized businesses and enterprises directly as well as via online distribution, consumer-electronics and office-supply retailers, software partners and major technology vendors. HP also has strong services and consulting business around its products and partner products.

**Source:** [HP Online-to-Store Case Study](http://www.thinkwithgoogle.com/insights/library/studies/hp-online-to-store-case-study/)

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<tbody>
<tr>
<td>HP</td>
<td>Co-op advertising is a key strategic marketing platform, where manufacturers such as HP partner with retailers to drive sales. Google can help advertisers build, manage and measure results of a digital co-op marketing program, targeted at the vast and engaged online audience. HP partnered with a national retailer to launch the digital co-op program (APT). The campaign was conducted for 4 weeks in 2010. APT has partnered with over 50 global 2000 leaders to test proposed initiatives, learn from results, accurately predict the impact of decisions, and maximize profits.</td>
<td>Google partnered with Applied Predictive Technologies (APT) to evaluate the sales lift with high significance.</td>
<td>Quantify the impact of an HP computing digital co-op search marketing campaign on in-store sales to make confident decisions about discretionary media and co-op budget allocation.</td>
<td>530% overall return-on-ad-spend for computing category ($5.30 in sales for every $1.00 of search media). Search ads targeted to top 25% of markets based on specific store attributes produced 1,090% return-on-ad-spend for computing category.</td>
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Based on the above analysis, we can interpret and summarize the following findings regarding to crucial characteristics of cooperative sales promotion campaigns:

- Successful brand manufacturers see an adding value through the collaboration with the retailers, because there are strongly interested in accomplishing customer relationship goals.
- The most significant strategic factor that successful brand manufacturers consider is the increasing customers’ participation rates through loyal customers, as the result of individualized marketing. Best practice can be found at cases of cooperative sales promotion campaign, where content of cooperative marketing campaigns is based on customer’s socio-demographic and behavioral characteristics and his demands assessed in a continuous base.
- The main objective for successful brand manufacturers is to approach customer’s needs individually and to direct campaigns at specific target groups.
- Because of an information overflow on the customer side, successful brand manufacturers see the relevance of marketing communication as a crucial success factor that requires innovative strategies towards a one-to-one marketing approach.
- The successful brand manufacturers agree on how customer-oriented processes should be implemented and how responsibilities for complete, or partial, processes should be regulated.
- Intervening conditions of cooperative sales promotion campaigns may be grouped into two sections: i) technological impediments; and ii) organizational impediments.
- Three contexts may influence the decision selection for successful brand manufacturers among different cost effective promotional tools: i) environmental (e.g. market conditions); ii) organizational (e.g. size of the two parties); and iii) level of ICT inadequate knowledge and technophobia.

**THE PROPOSITION: THE INTEGRATED BARGAINING SOLUTION ANALYSIS**

The extended “spais-papakonstantinidis-papakonstantinidis” model is presented in this section, including: i) the adjusted utility functions of the three “players”; ii) the definition of the “sensitization” process; ii) the referee solution, the optimal solutions for the three players and the constraints derived from the win-win-win papakonstantinidis model; iii) a presentation of the potential outputs from a bargaining process regarding to the sharing of the cooperative sales promotion cost among “A”, “B” and “C” parties/players for different sales promotion offerings, based on a hypothetical numerical example; and iv) the role of configuring the “sensitized game” in order to deepen the understanding of the bargaining characteristics.

We consider the business, which is the promotion planner as the A factor, with utility maximizing the profits \( \hat{\epsilon} \) in a given period \( t \) \((t = 0, 1, 2, \ldots T)\) for the brand \( p \) \((p = 1, 2, \ldots P)\). We can compute the per period profit for the brand as:

\[
\begin{align*}
\hat{\epsilon} &= \max_{U_{pt}} (W_{pt} - c_{pt} - Pr_{pt}) \cdot S_{pt} (MD_{pt}, SO_{pt}, AD_{th}\|\hat{A}, PR_{th}\|\hat{A}, \xi_{pt}) - AD_{pt} \\
p &= 0, 1, 2, \ldots, P, t &= 0, 1, 2, \ldots, T
\end{align*}
\]

where:

- \( \hat{\epsilon}_{pt} \) is the per period profit; \( \hat{\epsilon} \) for the brand \( p \) at period \( t \);
- \( W_{pt} \) is the wholesale price \( W \) for the brand \( p \) at period \( t \);
cp – is the marginal cost for the brand p;
Prpt – is the promotion, respectively of brand p at period t;
Spt – is the business’ existed level of sales for brand p at period t;
MDt – is the marketing decision cost at period t;
SO_{pBS} – is the objective of minimum sales volume for brand p at period t based on the break-even sales;

where break even sales:
Break-even sales = \frac{fixed costs}{contribution margin}

where contribution margin:
Contribution margin = \frac{brand’s price - variable cost}{brand’s price}

AD_{t} = \text{the total advertising budget at period } t \text{ considering } dS/dt;
where dS/dt according to Vidale-Wolfe model (1957):
\frac{dS}{dt} = r A(t)(M-S)/M - \lambda S,
where:
S = sales volume at period t
r = response constant
A(t) = rate of advertising expenditure
M = saturation level of sales
\lambda = exponential sales decay constant (lost sales) when \ A(t) = 0
PR_{t} – is the total promotion budget at period t considering dS/dt;
\xi_p – is the mean utility to consumers/customers from the brand p at period t due to unobserved variables.

We consider the marketing channel member as the B factor, with utility maximizing the profits \hat{\epsilon} for the marketing channel member from the partnership with the business in a given period \ t (t=0, 1, 2, ..., T) for the marketing channel member (mediating, facilitating and sales) services to the business sop (sop=1, 2, ..., S). We can compute the per period profit for the marketing channel member services as:

\max \hat{\epsilon}_{s} = (cp - Prpt) \cdot mspt(MDt, SO_{pBS}, TPGp, AD_{t}, \xi_p) - ADt
sop = 0, 1, 2, ..., Sop, s = 0, 1, 2, ..., S, t = 0, 1, 2, ..., T (5)

where:
\hat{\epsilon}_{s} – is the per period profit; \hat{\epsilon} for the marketing channel member for brand p at period t;
cp – the marginal cost for the brand p for the marketing channel member;
Prpt – is the promotion, respectively of brand p at period t;
mspt – is marketing channel member’s existed level of sales for brand p at period t;
MDt – is the marketing decision cost for the marketing channel member at period t;
SO_{pBS} – is the objective of minimum sales volume for brand p at period t based on the break-even sales;

where break even sales:
Break-even sales = \frac{fixed costs}{contribution margin}

where contribution margin:
Contribution margin = \frac{brand’s price - variable cost}{brand's price}
We consider a market with utility-maximizing customers/consumers \( c \) who while visiting the point of sale in a given period \( t \) (\( t = 0, 1, 2, \ldots, T \)) may choose to purchase the brand \( p \) (\( p = 1, 2, \ldots, P \)) within a category or may purchase a competitive brand (equivalent to not purchasing in the category, denoted by \( p = 0 \)). The presence of the outside alternative in our model allows for the potential sales increase. We represent the utility that customer/consumer \( c \) derives from brand \( p \), at period \( t \).

\[
\max U_{ct} = \beta_{0ct} + \alpha_rP_{st} + \beta X_{st} + \gamma_cP_{rst} + \xi_{st} + \eta_{ct},
\]

\( p = 0, 1, 2, \ldots, P, \ t = 0, 1, 2, \ldots, T \) (6)

where:

- \( \beta_{0ct} \) – is the utility that customer/consumer \( c \) derives from brand \( p \) at period \( t \);
- \( P_{st} \) – is the regular price, respectively for brand \( p \) at period \( t \);
- \( X_{st} \) – is a vector of factors that influence the customer’s/consumer’s utility including demand drivers such as seasonal factors at period \( t \);
- \( P_{rst} \) – is the promotion, respectively of brand \( p \) at period \( t \);
- \( \xi_{pt} \) – is the mean utility to customers/consumers from brand \( p \) at period \( t \) due to unobserved variables;
- \( \eta_{cpt} \) – is the loyalty of customers/consumers \( c \) to the brand \( p \) at period \( t \).

In Equation (3), we assume that the consumers/customers in each period will choose to purchase one of the brands at the point of sale \( p \) or settle for the outside good depending on the utility that they expect to derive from each choice alternative. So, their purchase choice is based on a consideration of the: a) characteristics of competitive brands, b) regular prices of competitive brands, c) promotional deals, d) seasonality, and e) marketing channel member’s corporate name.

In order to deepen our understanding for the following constraints, we have to consider the relation between knowledge and behavior (which is strongly evidenced in the literature) and consists one of the prevailing assumptions of the “win-win-win papakonstantinidis model” (the “interaction on bargain-behavior”). The different examples of knowledge types synthesis and the resulted 1-1 behavior leads us to understand the bargain-behavior assumption, based on information given. From the other hand, bargainers’ information may be the dominant result of this cross-related knowledge types (Papakonstantinidis, 2011).

Despite Nash “complete bargainers information” Harsanyi distinguished between complete and incomplete information, that each player has from the others bargaining behavior. Thus, the hypothesis of bargain-behavior interaction is very important in building the suggested “C Factor” following the Harsanyi’s Bayesian Theorem.
original game can be replaced by a game “where nature first conducts a lottery in accordance with the basic probability distribution” (Harsanyi, 1967). This extension is mainly based on the “Harsanyi’s transformation”, with a difference: original bargain between two can be replaced by a game, where the C Factor first conducts a lottery in accordance with the basic probability distribution. In addition, the “C” factor should be seen as the result of a “new” suggested bargaining behavior, coming from sensitization process (Papakonstantinidis, 2011; 2007; 2004a; 2004b; 2003; 2002). In such a context, the C party/player is given in terms of a continuous sensitization process, tending to sensitization itself, inside the customers. In accordance to Papakonstantinidis proposal (2011), the heart of the analysis for a bargaining solution in a cooperative promotion campaign must be the configuration of how the “sensitized game” (G**) is formed and developed. Such an analysis (according to Papakonstantinidis, 2011) based on Harsanyi’s definition of game [who considered the: i) set of players; ii) set of actions for each player; iii) types of the players decided by the function; iv) available actions for each player; and v) payoff function of each player] must also consider a sensitization coefficient of Ti (see the following definition of Harsanyi).

The game definition by Harsanyi’s (1967):

The game is defined as: $G = \langle N, \Omega, \langle A_i, u_i, T_i, \tau_i, p_i, C_i \rangle_{i \in N} \rangle$, where

1. $N$ is the set of players.
2. $\Omega$ is the set of the states of the nature. For instance, in a card game, it can be any order of the cards.
3. $A_i$ is the set of actions for player $i$. Let $A = A_1 \times A_2 \times \ldots \times A_N$.
4. $T_i$ is the types of player $i$, decided by the function $\tau_i : \Omega \rightarrow T_i$. So for each state of the nature, the game will have different types of players. The outcome of the players is what determines its type. Players with the same outcome belong to the same type.
5. $C_i \subseteq A_i \times T_i$ defines the available actions for player $i$ of some type in $T_i$.
6. $u_i : \Omega \times A \rightarrow A_i$ is the payoff function for player $i$. More formally, let $L = \{ (\omega, a_1, \ldots, a_N)^{\omega \in \Omega, \forall i, (a_i, \tau_i(\omega)) \in C_i} \}$, and $u_i : L \rightarrow R$.
7. $p_i$ is the probability distribution over $\Omega$ for each player $i$, that is to say, each player has different views of the probability distribution over the states of the nature. In the game, they never know the exact state of the nature.

The pure strategy $s_i : T_i \rightarrow A_i$ should satisfy $(s_i(t_i),t_i) \in C_i$ for all $t_i$. So the strategy for each player only depends on his type, since he may not have any knowledge about other players’ types. And the expected payoff to player $i$ for such strategy profile is: $u_i(S) = \mathbb{E}_{\omega \sim p_i} [u_i(\omega, s_1(T_1(\omega)), \ldots, s_N(T_N(\omega)))]$.

Let $S_i$ be the set of pure strategies, $S_i = \{ s_i : T_i \rightarrow A_i \}$, $s_i(t_i), t_i \in C_i, \forall t_i$.

Next, we define the “C party/player” in terms of a continuous sensitization process, with demographic and/or psychographic characteristics, in accordance to Siguaw and Enz (1999). These may be seen as the output of the continuous sensitization process and perfect information (the sensitization), an assumption that also considered strongly by Kunter’s model (2012) and it is common by many other models (Kunter, 2012). Based on the win-win-win papakonstantinidis model can be presented: $\lim Pi(S) Qi(S) Ri(S) = \max Pi Qi Ri$ (i$\rightarrow \infty$)

where:

$Pi(S)$ – strategy for “A player” under the probability distribution $Pi$

$Qi(S)$ – strategy for “B player” under the probability distribution $Qi$

$Ri(S)$ – strategy for “C player” under the probability distribution $Ri$

Instead of the ad hoc solutions discussed so far, one may consider allocation mechanisms derived from the theory of cooperation as developed in game theory. Our case is equivalent to a cooperative three-players-game. The theory of cooperative games is concerned with finding a referee solution that will be accepted by all three cooperating players.
The constraints presented below (8), (9) and (10):

\[ \text{Profit}_i(\text{Coop}) \geq \text{Profit}_i(\text{Non-coop}) \] (8)  
\[ \text{Profit}_i(\text{Coop}) \geq \text{Profit}_i(\text{Non-coop}) \] (9)  
\[ \text{Profit}_i(\text{Coop}) \geq \text{Profit}_i(\text{Non-coop}) \] (10)

**Profit**(_i_, Coop): Profit of the i-th player from the optimal solution of cooperation,  
**Profit**(_i_, Non-coop): Profit of the i-th player from the optimal solution of non-cooperation (threat point).

Based on the above, the three “players” should only share the additional profit that results from the cooperation while receiving in advance that part of the profit that they could have achieved anyway in the case of non-cooperative behavior. The rationale behind this is that the profit can’t be shared in total because the players have different threat points, i.e. profits in the case of non-cooperation. It is thereby plausible to share only the additional profit resulting from the cooperation. Constraints (8), (9) and (10) ensure that the players only accept solutions that are better than the one they could achieve in the case of non-cooperation. For our case, marketing managers have to search for a solution that maximizes the additional joint profit from cooperation (i.e. by operating a cooperative sales promotion campaign) over the respective profits in the case of non-cooperation (i.e. by operating separate sales promotion campaigns). Table 4 shows the presentation of the potential outputs from a bargaining process regarding to the sharing of the cooperative sales promotion cost among “A”, “B” and “C” parties/players for different sales promotion offerings based on a hypothetical numerical example:

**Table 4: A presentation of the potential outputs from a bargaining process regarding to the sharing of the cooperative sales promotion cost among “A”, “B” and “C” – “the sharing problem” for 5 sales promotion offerings in accordance to the assumptions of the win-win-win papakonstantinidis model based on a hypothetical numerical example.**

<table>
<thead>
<tr>
<th>Sales promotion offerings</th>
<th>Share for A (%)</th>
<th>Share for B (%)</th>
<th>Utility for “A”</th>
<th>Utility for “B”</th>
<th>Utility for “A” and “B” (“A”x“B”)</th>
<th>Share for C (%)</th>
<th>Utility for “C”</th>
<th>Utility for “A”, “B” and “C” (“A” x “B” x “C”)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>90</td>
<td>4</td>
<td>1</td>
<td>71</td>
<td>71</td>
<td>6</td>
<td>1</td>
<td>71</td>
</tr>
<tr>
<td>B.</td>
<td>80</td>
<td>13</td>
<td>2</td>
<td>70</td>
<td>140</td>
<td>7</td>
<td>2</td>
<td>280</td>
</tr>
<tr>
<td>C.</td>
<td>70</td>
<td>22</td>
<td>5</td>
<td>68</td>
<td>340</td>
<td>8</td>
<td>3</td>
<td>1020</td>
</tr>
<tr>
<td>D.</td>
<td>60</td>
<td>31</td>
<td>10</td>
<td>64</td>
<td>640</td>
<td>9</td>
<td>4</td>
<td>2560</td>
</tr>
<tr>
<td>E. 50</td>
<td>40</td>
<td>16</td>
<td>60</td>
<td>960</td>
<td>10</td>
<td>5</td>
<td>4800 (MAX)</td>
<td></td>
</tr>
<tr>
<td>F.</td>
<td>41</td>
<td>50</td>
<td>23</td>
<td>52</td>
<td>1196</td>
<td>9</td>
<td>4</td>
<td>4784</td>
</tr>
</tbody>
</table>

Note:  
- The less shares for “A” and “B” parties/players the more share for “C” party/player.  
- Utility is a personal matter: Utility units are not compared to each other. They express the fear of breaking down the agreement. If “A” party/player needs more the “agreement” than the payoff, then he should be ready to accept any form of agreement.

Considering the definition of cooperative advertising (see in Introduction), we can state that cooperative sales promotion is an arrangement where “A” party/player (e.g. a manufacturer) pays for some cost the sales promotion undertaken by a retailer for manufacturer’s brands. The above hypothetical numerical example includes cost share for “A” party/player from 41-90% and for “B” party/player from 52-71%. The critical role of the “C” party/player (the customer), as the “third win” in the suggested bargaining solution analysis regarding to the “sharing problem” is the share cost that the customer is willing to undertake for the promotion offering in order to get the units of utility that needs/desires. This means that the customers will try to maximize their utility by acquiring the specific promotion offering for a cost share that are willing to undertake. Therefore, the cost shares of “A” and “B” that are willing to undertake directly affect the share cost and the units of utility for “C” party/player.
DISCUSSION

In this paper, which is conceptual in nature with strong practical implications, author’s intention was to examine the possibility to investigate win-win-win papakonstantinidis model in order to develop an integrated bargaining solution analysis for vertical cooperative sales promotion campaigns. Based on previous theoretical extensions (Spais and Papakonstantinidis, 2011; Spais, Papakonstantinidis and Papakonstantinidis, 2009), this study presented an integrated bargaining solution analysis for cases of optimal allocation of a promotion budget in a cooperative sales promotion campaign in vertical marketing channels. This integrated bargaining solution analysis included: a) three (3) adjusted utility functions, considering the parameters of sales response budgeting method, the break-even sales analysis and the marketing channel member’s trade promotion goals; b) the referee solution, the optimal solution for the “three players” and the constraints; c) the definition of the third win in terms of a continuous sensitization process and perfect information; and d) the presentation of the potential outputs from a bargaining process regarding to the sharing of the cooperative sales promotion cost among “A”, “B” and “C” parties/players for different sales promotion offerings. The basic initial assumption of this study is that different problems met in cooperative promotion planning requires adjusted bargaining solution analyses based on the win-win-win approach (including the “third win” for customers) and should not based on the traditional win-win. Encouragingly, the review of the modern literature and the critical case study confirmed the need for a win-win-win approach in cooperative sales promotion planning in vertical marketing channels. No study, until now, has offered such an innovative and integrated bargaining solution analysis conceptualization for promotion management decisions in vertical marketing channels.

The literature showed that cooperative advertising has been used by many industries for decades and continues to play a key promotional role for many manufacturers, retailers and retail customers. This is proven by significant increase of dollars spent on cooperative advertising. This increase in spending volume and the overall increase in the significance of cooperative advertising seems to motivate scholars, researchers, authors and thinkers, globally to explore more the role and use of cooperative advertising in practice, the last years. Although literature clearly shows the raising issue of reinforcing customers’ participation in marketing management activities of customer-centric organizations (such as: idea generation, idea screening, concept development and testing, process design, test marketing, building promotion campaigns etc.), (e.g. Awa, 2010; Hu, Jianyou & Na, 2010; Fang, 2008; Payne, Storbacka & Frow, 2008; Chen & Lu, 2007; Etgar, 2007; Lusch, Vargo & O’Brien, 2007; Gallbraith, 2005; Hip & Grupp, 2005; Piller, 2005; Alam, 2002; Wind & Ragaswamy, 2001; Sheth, Sisodia & Sharma, 2000; Johne & Storey, 1998; Sundbo, 1997; Youngdahl & Kellogg, 1997; Wilkstrom, 1995; Dabhokar, 1990; Bowen, 1986; Lovelock & Young, 1979) unfortunately there is no theoretical framework including the customer (as a “third party” or “third player”) in a cooperative marketing or promotion planning process. The concept of including the third party, as the third “win” in a traditional “win-win” approach for cooperative marketing and promotion campaigns was presented for the first time in the marketing literature in 2009 (Spais, Papakonstantinidis & Papakonstantinidis, 2009).

The ‘win-win-win spais-papakonstantinidis-papakonstantinidis model’ is a methodological tool for conflict resolution, especially in the case of decision-making, or in forming “instant reflection winning strategies” the BARGAIN (which is the frame) in vertical marketing channels for cooperative promotion management decisions. Marketing managers must realize that building a strong competitive advantage in a market mainly depends on the trust links among the partnerships in vertical marketing channels. Cohesion in the vertical marketing partnership in the marketing channel may be measured by the diversification Rate (R*) from strict rules: From this point of view, customers’ intervention is useful, so as to diversify these “rules” at customized level adjusting them to their needs, wants, consuming identity, including communication codes, customs, ethics, culture. The ‘win-win-win spais-papakonstantinidis-papakonstantinidis model’, as a vertical marketing channels’ bargaining solution analysis for cooperative promotion management decisions can facilitate customers to “readjust” bargaining rules in each market, through a sensitization process: Community of customers is defined as a discrete spatial/cultural entity at its sensitization process’ limit.

Future research tries may find see as a research challenge by examining the innovative bargaining solution analysis under different real case studies and under different assumptions. Quiet interesting could be an examination of the bargaining solution analysis by considering some of Kunter’s (2012) assumptions in different market
structure. For example: i) different per-unit cost of production for the members of the vertical marketing channel (excluding the customer); and ii) demand which retail price and non-price marketing effort on players/parties A and B simultaneously affect.

CONCLUSION

The basic initial assumption of this study is that different problems met in cooperative promotion planning requires adjusted bargaining solution analyses based on the win-win-win approach (including the “third win” for customers) and should not based on the traditional win-win.

The research intention was to examine the possibility to investigate win-win-win papakonstantinidis model in order to develop an integrated bargaining solution analysis for vertical cooperative sales promotion campaigns. Based on previous theoretical extensions (Spais and Papakonstantinidis, 2011; Spais, Papakonstantinidis and Papakonstantinidis, 2009), this study presented an integrated bargaining solution analysis for cases of optimal allocation of a promotion budget in a cooperative sales promotion campaign in vertical marketing channels. This integrated bargaining solution analysis included: a) three (3) adjusted utility functions, considering the parameters of sales response budgeting method, the break-even sales analysis and the marketing channel member’s trade promotion goals; b) the referee solution, the optimal solution for the “three players” and the constraints; c) the definition of the third win in terms of a continuous sensitization process and perfect information; and d) presentation of the potential outputs from a bargaining process regarding to the sharing of the cooperative sales promotion cost among “A”, “B” and “C” parties/players for different sales promotion offerings.

Based on the assumptions of the ‘win-win-win papakonstantinidis’ conceptualization, the limitation in contexts such as the cooperative promotion programs, is that utility assessment and cost-utility analyses such as costs/quality-adjusted expected profits model from the partnership for A and B parties/players and the C party/player (for customers/consumers) are frequently presented to demonstrate the value of many utility options in the marketing literature. The “C” party/player produces a new behavioral type that converges the interests of both sides. By converting, a binomial distribution (p, 1-p) into a trinomial distribution, (p1, p2 and 1-p1-p2) combined with three utility function “prices”. However, utility indicators require various methods that introduce significant methodological challenges, which directly influence the results and ensuing cooperative promotion management decisions in vertical marketing channels. Encouragingly, the review of the modern literature and the critical case study confirmed the need for a win-win-win approach in cooperative sales promotion planning in vertical marketing channels.

AUTHOR INFORMATION

George S. Spais (Ph.D., Panteion University of Social & Political Sciences, Greece) is an Adjunct Assistant Professor of the Higher Technological Educational Institute of Patras (Greece) and part-time educational personnel member (“SEP”) of Hellenic Open University (Greece). He has been named an Associate Research Fellow at Euromed Research Business Institute (EMRBI) and he has been appointed as a member of the Board of Directors of the Clute Institute for Academic Research (Colorado, USA). He serves as a marketing co-editor of the Journal of Applied Business Research and as a member on the editorial boards of (in alphabetical order) Asian Journal of Marketing, Innovative Marketing, International Journal of Integrated Marketing Communications, International Review of Management, Journal of Business Case Studies, Journal of Marketing Education and Journal of Promotion Management. He is acting as an ad hoc reviewer for several international academic journals of marketing and academic conferences. He is an elected Member of the Chartered Institute of Marketing (MCIM). He is a member of the Academy of Marketing Science (USA), the European Marketing Academy of the European Institute for Advanced Studies in Management (Belgium), the Marketing Academy (UK), the EuroMed Academy of Business of the EuroMed Research Business Institute (Cyprus), the Greek Marketing Academy (Greece) and the Hellenic Institute of Marketing (Greece). E-mail: gspais@otenet.gr
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