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Integral Effect Estimation Methods for a Partner Company of the Participation in the Coalition Loyalty Program

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Abstract: The research deals with the coalition loyalty programs performance estimation methods for partners companies. The Russian companies experience difficulties estimating this marketing instrument effect and effectiveness. The primary data shows that having such accepted performance indicators as retention, SHIFT and LIFT is apparently insufficient. In many cases, effectiveness for a company partner can be evaluated only indirectly through a specific effect. It required carrying out a resumptive analysis of requirements for coalition loyalty programs efficiency. The performed analysis of coalition loyalty programs suggests four requirement classes of partners companies to the coalition loyalty programs efficiency. Each of categories contains a number of indicators which make it possible to determine a common effect within the category. As a result, we propose coalition loyalty program efficiency estimation methods for a partner company based on the expert numerical scores of the program attractiveness including their weight values. The methods were tried and tested on the Russian participant company of the coalition loyalty program.

Key words: Marketing instruments, coalition loyalty program evaluation methods, desk studies, consumer loyalty, coalition loyalty program, loyalty effectiveness, loyalty effect, loyalty program efficiency

INTRODUCTION

The loyalty program is an extensively used marketing instrument. At the same time companies often fail to have precise understanding of how to evaluate the loyalty programs' effect. This study considers the issues of effect determination of one of the loyalty programs type, namely, coalition programs.

According to some evaluations ~14.4% of the world adult population takes part in one of the coalition loyalty programs. Literature pays particular attention to the coalition loyalty programs issues. At the same time, the literature devoted to loyalty programs problems focuses on consumer behaviour surveys (these programs' participants). Nonetheless, a number of works deals with the issues of partner companies' (The partner company is understood as a company taking part in the coalition loyalty program for the purposes of attracting and retaining additional consumers of their goods (goods and services)) participation in loyalty programs. Berman (2006) mentions that partners companies' participation in the coalition loyalty programs may decrease its support expenses, increase its attractiveness for consumers and create opportunity for cross sales. However, he doesn't reveal these indicators evaluation mechanism. In addition, there are suggestions that coalition programs as a product have reached a maturity stage of their life cycle (Capizzi and Ferguson, 2005) that leads to the decrease of interest in such programs both on the part of consumers and on the part of companies.

Some researchers (Dorotic *et al*., 2011) cast doubt on the effect for partners companies of participation in these programs but do not share approach to this effect evaluation. Kotler (2003) specifies that loyalty programs do not create real consumer loyalty. "They address the consumer through his rationality sense, exploiting free accumulation crave but do not necessarily create emotional bond with him herewith". At the same time, Kotler does not propose "emotional bond" evaluation instrument. Some researchers (Stauss *et al*., 2005) considers that despite all loyalty programs general feature is advantage provision for the clients in the form of monetary or non-monetary incentives, there are consumer segments which can react contrary to loyalty programs incentives. Moreover, some coalition loyalty programs may lead to consumers' disappointment who consequently leave these programs or stop being their active participants that cannot but influence partner companies.

For another thing, there are doubts whether some the progress of companies which take part in the coalition loyalty programs may be charged to these programs or there are other factors insuring the success? Respectively if there's an effect of coalition loyalty programs, how can we discover it? The carried out literature review didn't give an answer to this question that became the study starting point.

MATERIALS AND METHODS

Research methodology is based on desk study methods. The research is based on algorithm approach to desk study. The research comprised three stages: literature search, source information sorting, findings analysis and synthesis based on researcher's analytical and evaluative role (Sidorchuk, 2009). To process the selected literary sources the following methods were applied: content analysis, description and analogue methods and also hierarchy analysis technique.

RESULTS AND DISCUSSION

We carried out the secondary sources desk study to detect requirements for the coalition loyalty programs performance for partner companies. The Russian experts distinguish advantages which a partner company can get: stable cash flow and customer relations prime cost decrease.

The empiric study results, Institut GmbH and Co (IFAK) allow us to formulate requirements for the effect of the coalition loyalty programs (Fig. 1).

McKinsey (Cigliano *et al*., 2000) company's consultants who analyzed well-know Canadian coalition loyalty program Air Miles show that the aviation company found "a successful solution" based on the group of companies joining and the program organization and support expenses distribution between them for the purpose of the loyalty program economic effectiveness improvement.

A distinct advantage for a partner company involves getting necessary information content, useful for consumer profile understanding (Cigliano *et al*., 2000). Such traditional information sources as market basket analysis, consumer survey, etc. are either rather expensive or capture only part of important information about the consumer. Moreover, traditional information sources do not contain information on how a separate consumer's behaviour changes through time. In support of the given argument the American Loyalty Program MyPoints (www.mypointscorp.com) consumer section focuses on the importance and opportunity for using information about consumer by a partner company in the program service.

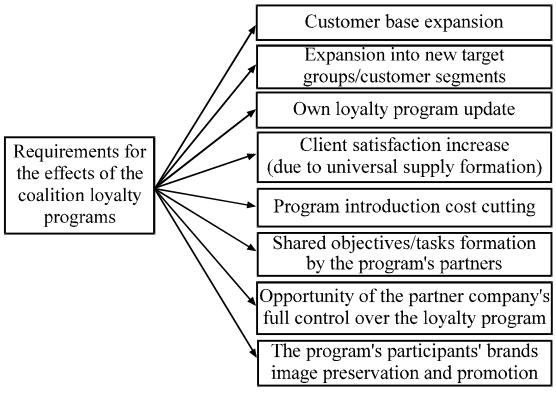

Fig. 1: Requirements for the effects of the coalition loyalty programs (prepared by the research based on the study of developing loyalty programs in Ukraine and Russia, 2012

An opportunity to achieve the goal set to attract the most desirable consumers as a requirement for the coalition loyalty program (Cigliano *et al*., 2000) should be also noted. The coalition loyalty program should be spread to consumers, representing not <50-60% of sales total volume of the program's partner company and be available for the partner company's consumers who wish to take part in. It's indirectly proved by the consultants of the PriceWaterHouse Coopers company (PWC) by means of Income-Expenditure System analysis and coalition loyalty program's managers analysis (PWC, 2013).

The literature (Bohn and Plozay, 2009) refers to decrease in coalition loyalty programs value for the consumer because of the growing number of the identical programs. It requires programs continuous improvement and new participants' involvement instruments search. In this respect, it's possible to distinguish as a program effect active users' attitude towards all registered participants. The above-mentioned problem of the consumer interest decrease should be attributed to the need of the coalition loyalty programs' participants detailed segmentation (Capizzi and Ferguson, 2005).

It is important to note there's need for coalition loyalty program's partner companies' segmentation which may have different interests in various consumer (participants) segments. For example, the partner section on the website of the Korean coalition loyalty program OK Cashbag (http://www.okcashbag.com/utility/bizPartner.do) specifies that it attracts a leader of the corresponding segment as a partner. The coalition loyalty program website Nectar (http://www.nectar.com/about-nectar/corporate/partner-with-nectar.points) mentions requirement for partners' brand differentiation. The analogical condition is in the partners section of the German coalition loyalty program Payback (http://www.payback.de/pb/id/441982/). Analyzing the Russian coalition loyalty program MHoroo.py, experts marked the importance of participants' pool criteria structure formation. A number of studies (Karasev and Us, 2005) bring results that demonstrate that partner companies' structure of the coalition loyalty programs should correspond to household and cover up to 60% of all expanses in their spending pattern. The company Sports Loyalty International, Inc. (SLI) (http://www.sli21.com/white-papers/) specifies an important parameter

reflecting requirements for coalition loyalty program's partner companies they should not compete. The program should not involve products focused on similar needs satisfaction. The literature represents an effect of cross sales as an important advantage of the coalition loyalty programs. For example, the company of SLI website (http://www.sli21.com/) specifies that coalition loyalty programs should provide cross purchases to its participants at the program's partner companies. We classified requirements for the coalition loyalty program performance for a partner company based on of coalition loyalty programs. We distinguished four categories: economic effect (E_e), communication effect (C_e), behavioural effect (B_e) and structure effect (S_e) (Table 1). Each of the categories provides parameters exercising a significant influence on a category.

As a result of carried out analysis, we propose to use effect integral indicator of the coalition loyalty programs for a partner company (SI_Σ based on weighed score estimate. We propose using expert survey methodology for a score estimate. The expert survey methodology we used is of classical nature and described in the literature (Golubkov, 2000; Sidorchuk, 2009). Experts are invited to evaluate indicators' importance using a

Table 1: The coalition loyalty program categories and indicators for a partner company

Categories	Indicators
Economic effect ($E_{\Sigma, e}$)	Profitability from the participation in the coalition loyalty program should be higher than participation expanses, R_{ROI} ($P_{r, \Sigma} \div TC_\Sigma$) where, $P_{r, \Sigma}$: total profit from the participation in the coalition loyalty program (economic effect); TC_Σ: partner company's general costs associated with the participation in the coalition loyalty program Increasing cash flow for partner companies, Lift ($CF_{lift} \div TC_\Sigma$) where, Cf_{lift}: characterizes partner company's increasing cash flow due to purchase amount increase by loyalty program's participants; TC_Σ: partner company's general costs associated with the participation in the coalition loyalty program Partner companies' customer base expansion, Shift ($CF_{shift} \div TC_\Sigma$) where, Cf_{shift} cash flow for a partner company due to the program's new participants purchases; TC_Σ: partner company's general costs associated with the participation in the coalition loyalty program The coalition loyalty program partner company's existing participants' purchase rate retention, Retention ($CF_{retention} \div TC_\Sigma$) where, $Cf_{retention}$: cash flow for a partner company due to the coalition loyalty program's participants' repeat purchases; TC_Σ: partner company's general costs associated with the participation in the coalition loyalty program The coalition loyalty program expanses should be lower than own (local) loyalty program expanses A_{TCkL} ($TC_{kL} < TC_{LL}$) where, $Tc_{kL, i}$: the partner company's coalition loyalty program expanses; TC_{LL}: own (local) loyalty program expanses. Customer relations prime cost decrease, C_{tc} ($TC_{kL, i} \div X_i \leq TC_{m, i} \div Y_i$ where, $TC_{kL, i}$: the partner company's coalition loyalty program expanses over an i-period; X_i: the amount of coalition program's participants, partner company's goods and services consumers over an i-period; TC_m: marketing expanses over an i-period exclusively of the coalition loyalty program expanses; Y_i: the amount of the partner company's goods and services consumers over an i-period exclusively of the coalition program's participants)
Communication effect (C_e)	Loyal customers retention, C_{Li} (based on the Enis-Paul Index calculation (Burford *et al*., 1971), $L_i = 100 \times \sqrt[3]{(b_i \times ((k+1)-s_i) \div m) \times ((n+1)-p_i) \div n)}$ where, L_i: the loyalty index of the i-th consumer to a partner company in the coalition loyalty program; b_i, budget share allocated for this category products that i-th consumer spends in the partner company's store; s_i: the number of shifts between stores of the company and other stores over particular period of time for the ith consumer; p_i: the number of stores in which the i-th consumer purchased goods of the given category during survey conducting; m: total amount of all stores visits over a particular period of time; k: the number of shifts between stores; n: the number of stores available for the consumer for the given category product purchase over a particular period of time "Secondary" customers share increase in the partner companies' general client flow, C_{crr} (based on "retention" index calculation CRR = ((r-a)/S)×100 where, s: the amount of consumers at the beginning of the period; r: the amount of consumers that remain at the end of the period; a: the amount of consumers acquired over the study period) Consumer satisfaction increase due to participation in the coalition loyalty program and its partner companies' services use C_A (based on the Fishbein's model multi-attributive index calculation (Fishbein, 1967) $A = \Sigma_1^n B_i \times a_i$ where: A: consumer attitude; B_i: subjectively estimated probability of object's having features a; a_i-consumer's subjective estimate of feature "a" attractiveness; n: the number of potential features)
Behavioural effect (B_e)	The program's participants' price response rate to partner companies' (goods and services) products, P_e (based on cross-elasticity of demand calculation of partner companies' product (O) and competitors' product (X), $E = (\Delta Q) \div (\Delta P)$ where, ΔQ: relative change in product demand X; ΔP: relative change in product price O: E-products X and O cross elasticity coefficients) Cross sale to the coalition loyalty program's participants, Q_{CS} (cross-Selling), ($Q_{cL, i} \div Q_{\Sigma, i}$ where, $Q_{cL, i}$: coalition loyalty program's participants share acquiring other partner companies' products and having becoming our partner company's product customer over a particular period of time i; $Q_{\Sigma, i}$: total amount of the partner company's consumers over a particular period of time i The program's active participants share, A_c ($Q_{c, i} \div Q_{a, i}$ where, $Q_{c, i}$: the coalition program's participants share who get and spend scores over a particular period of time i; $Q_{a, i}$: the share of participants who do not conduct operations regarding the coalition loyalty program (only registered) and/or those who only accumulate scores over a particular period of time i
Structure effect (S_e)	Information gathering, database creation and easy, free access for a partner company to the information on consumer profile and purchase behaviour change through time, Db Partner companies' adequate structure and significancy, structure Unity of purposes/tasks formation for the coalition loyalty program's partner companies, purpose Participants' segmentation and consumer target segments attraction for partner companies, S_{targ} Coverage not <50-60% of total amount of customers of the coalition loyalty program's partner companies, cover Interest flexibility and increase in the coalition program on the part of participants, FDI The absence of competition among the coalition loyalty program's partner companies, competition Customer relationship management system organization, CRM

ten-point scale: from 0 the lack of feature to 10 feature maximum presence. We propose to use indicators' importance weight estimate. Indicators' and categories' weight is calculated based on the preliminary expert study (Appendix 1). As a result, we propose the following Eq. 1 for a practical application:

$$E_{\Sigma} = 10\times[E_{\Sigma,e}\times I_{\Sigma,e} + C_e\times I_{\Sigma Ce} + B_e\times I_{\Sigma Be} + S_e\times I_{\Sigma Se}]$$

$$= 100\times[I_{\Sigma e}\times(R_{ROI}\times I_{ROI} + Lift\times I_{lift} + Shift\times I_{shift} + Retention\times I_{retention} + A_{TCkL}\times I_{ATCkL} + C_{tc}\times I_{Ctc}) + I_{\Sigma Ce}\times (C_{Li}\times I_{Cli} + C_{crr}\times I_{Cerr} + C_A\times I_{Ca}) + I_{\Sigma Be}\times(P_e\times I_{Pe} + Q_{CS}\times I_{QCS} + A_c\times I_{Ac}) + I_{\Sigma Se}\times(Db\times I_{Db} + Structure\times I_{structure} + Purpose\times I_{Purpose} + S_{targ}\times I_{Starg} + Cover\times I_{Cover} + FDI\times I_{FDI} + Competition\times I_{Competition} + CRM\times I_{CRM})]$$

Where:

E_{Σ} = Integral indicator of effect estimate of the coalition loyalty program for a partner company
$I_{\Sigma e}$ = Economic effect weight coefficient
$I_{\Sigma Ce}$ = Communication effect weight coefficient
$I_{\Sigma Be}$ = Behavioural effect weight coefficient
$I_{\Sigma Se}$ = Structure effect weight coefficient
I_{ROI} = Economic effect weight coefficient of profitability
I_{lift} = Economic effect weight coefficient of cash flow increase
I_{shift} = Economic effect weight coefficient of money base expansion
$I_{retention}$ = Economic effect weight coefficient of existing participants' purchase rate retention
I_{ATCkL} = Economic effect weight coefficient of the coalition loyalty program cost cutting
I_{Ctc}- = Economic effect weight coefficient of customer relations prime cost decrease
I_{Cli} = Communication effect weight coefficient of loyal customers retention
I_{Cerr} = Communication effect weight coefficient of the "secondary" customers share increase
I_{Ca} = Communication effect weight coefficient of customer satisfaction increase
I_{Pe} = Behavioural effect weight coefficient of the participants price response
I_{QCS} = Behavioural effect weight coefficient of cross sales
I_{Ac} = Behavioural effect weight coefficient of active users part
I_{db} = Structure effect weight coefficient of the coalition loyalty program data base
$I_{Structure}$ = Structure effect weight coefficient of the partner companies' structure and significancy
$I_{Purpose}$ = Structure effect weight coefficient of unity of purposes/tasks for partner companies in the coalition loyalty program
I_{Starg} = Structure effect weight coefficient of participants segmentation
I_{Cover} = Structure effect weight coefficient of coverage
I_{FDI} = Structure effect weight coefficient of the interest flexibility and increase in the coalition program
$I_{Competition}$ = Structure effect weight coefficient of the competition presence or absence among partner companies
I_{CRM} = Structure effect weight coefficient of customer relationship management system

Thus, effect integral indicator of the coalition loyalty program for a partner company (SI_{Σ}) takes on a value from 0-100%. For the purposes of approbation the Russian company participation in a coalition loyalty program was taken for the expert evaluation (Company name and coalition loyalty program name remain confidential under "Confidentiality agreement" relating to the study (Study inventory No. 02201458416 in the Federal State Autonomous Institution "The Center of Information Technology and Executive Bodies Systems). For the company, the calculated value was SI_{Σ} = 42.5% that according to experts demonstrates participation inefficiency in the given coalition program. Analyzing possible values of SI_{Σ}, we consider that minimum value which effect evaluation integral indicator of coalition loyalty program for a partner company should not be <60%.

CONCLUSION

We managed to classify requirements specified for the coalition loyalty programs performance based on carried out analysis of literature and websites of the coalition loyalty programs. We defined categories comprising economic effect, communication effect, behavioural and structure effect. Hereafter, we demonstrated how these effects can be defined to evaluate the coalition loyalty program performance for a partner company. The methods we proposed provide a means of the coalition loyalty program effect evaluating for a partner company based on the integral indicator SI_{Σ}. At the same time there's subjectivity lowering problem when defining categories and indicators. This direction requires future empiric studies.

APPENDIX

Appendix 1: The importance ranks expert evaluation

Categories	Category importance	Indicators	Indicator significance
$I_{\sum e}$: economic effect weight coefficient	0.40	I_{ROI}: economic effect weight coefficient of profitability	0.20
		I_{lin}: economic effect weight coefficient of cash flow increase	0.10
		I_{shift}: economic effect weight coefficient of money base expansion	0.20
		$I_{retention}$: economic effect weight coefficient of existing participants' purchase rate retention	0.10
		I_{ATCkL}: economic effect weight coefficient of the coalition loyalty program cost cutting	0.20
		I_{Ctc}: economic effect weight coefficient of customer relations prime cost decrease.	0.20
-	-	Total indicators importance by the economic effect category	1.00
$I_{\sum Ce}$: communication effect weight coefficient	0.25	I_{Cli}: communication effect weight coefficient of loyal customers retention;	0.35
		I_{Cen}: communication effect weight coefficient of the "secondary" customers part increase	0.40
		I_{Ca}: communication effect weight coefficient of customer satisfaction increase	0.25
-	-	Total indicators importance by the communication effect category	1.00
$I_{\sum Be}$: behavioural effect weight coefficient	2.00	I_{Pe}: behavioural effect weight coefficient of the participants price response	0.25
		I_{QCS}: behavioural effect weight coefficient of cross sales	0.40
		I_{Ac}: behavioural effect weight coefficient of active users' share	0.35
-	-	Total indicators importance by the behavioural effect category	1.00
$I_{\sum Se}$: structure effect weight coefficient	0.15	I_{Db}: structure effect weight coefficient of the coalition loyalty program data base	0.20
		$I_{Structure}$: structure effect weight coefficient of the partner companies' structure and significancy	0.20
		$I_{Purpose}$: structure effect weight coefficient of unity of purposes/tasks for partner companies in the coalition loyalty program	0.10
		I_{Starg}: structure effect weight coefficient of participants segmentation	0.10
		I_{Cover}: structure effect weight coefficient of coverage	0.15
		I_{FDI}: structure effect weight coefficient of the interest flexibility and increase in the coalition program	0.10
		$I_{Competition}$: structure effect weight coefficient of the competition presence or absence among partner companies	0.15
		I_{CRM}: structure effect weight coefficient of customer relationship management system	0.20
-	-	Total indicators importance by the structure effect category	1.00
Categories total importance	1.00	-	-

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