THE IMPORTANCE OF COMMUNICATION IN THE ANIME CULTURE'S E-MARKETING. CASE STUDY

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Abstract:The purpose of the research is to study the link between the communication signal through the online socializing environment and the effect on the dynamics of the anime product emarketing, as well as the influence of the cosplay manifestations on the decisional behavior of the fan of this type of culture. The data used is based on an online survey conducted with the occasion of the Comic con event held in Romania this year, addressed to the Facebook chat groups, with anime and cosplay themes. The study has two directions of interest: the influence of the signal, through the participation at this event, both on the emarketing of cosplay related products and on the dynamics of the anime derived products e-marketing.
The tools used in the research belong to the informational statistics and make a connection between the media communication and the information theory.

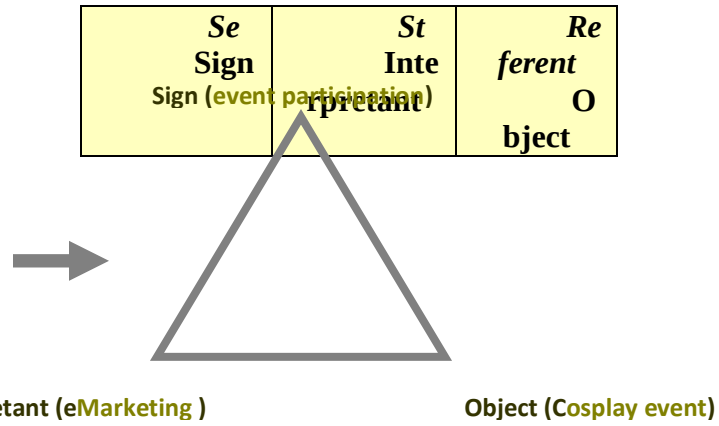
Keywords: anime, cosplay, market, media communication, information theory

1. Introduction

"A sign is a materiality we perceive with the help of one or more senses that we have. He can be seen, heard, smelled, touched or even tasted. However, a sign is something that holds something else for someone, under some kind of report or title" (Charles Sanders Pierce**)**

This definition has the merit of showing that a sign maintains a solidarity relationship between three poles: the perceptible face of the sign **(*signified-St*)**, which represents **(*the object or the referent*)** and what it signifies **(*interpretant or signified-Se*).**

This triangular presentation represents the dynamics of any sign as a semiotic process, whose significance depends on the context of the occurrence and the expectation of the receiver:



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The term of ***media*** identifies the communication meaning, based on technology, that makes a link between the communicator (transmitter) and the receiver (receiver).

After its localization in the USA, during the 70's, the Japanese animation, called "anime", gained a wide popularity in America and then, gradually, during the 80's, 90's and 2000's, its popularity spread in Europe and in many other countries which began trading relations with USA, in the context of globalization. The localization was not the only mean by which "anime" started to gain a world wide audience. Many fan groups started doing their own localization of anime, directly from Japan and share them by means of Internet. This was the start of a cultural phenomenon revolving around anime. An important part of this growing culture is "cosplay". Cosplay represents the cultural manifestation of anime fans to dress up as their favorite anime characters, and interpret them. This hobby requires the purchase of special costumes tailored like the outfits worn by the anime characters. As a lot of anime are produced every year, the cosplay industry must keep up with the market demand.

2. The importance of the message as source of information. Signals from cosplayers and facebook ads(announcements)

The presence of anime culture in Romania was encouraged by social networking site, namely the *facebook.com*.

Within the social network offered by this site, there are discussion groups, virtual communities, even virtual stores, as well as pages for presenting different events. Their members post information about the anime or anime related events, including cosplay. This way, the groups can be compared with real newsletters on the subject of the group, in this case the cosplay events, giving each member the opportunity to be up to date with the latest news.

In Romania exist dozens of such groups, the largest being Anime Romania, media discussion groups, including anime and cosplay, among other topics of discussion. It's well to know that many of the members of these groups are part of the international groups, speaking english groups, having an anime themes and including millions of members.

Today, we accept the source of information as the mechanism by which a message is sent from the set of messages to the recipient, a mechanism that we can fit into an experiment **S**, whose results highlight the independent elementary events s_i, $_{i=1...n.}$, with the probabilities $p(s_k)$, $_{k=1...n}$, considered **complete** if: $\cup s_k$, $_{k=1...p}=E$, where E is the **certain** event.

If, for example, s_i are messages from the cosplayer groups, considered as a discrete source of information (the number of messages is ***finit***), these events are disjointed.

As a result, $p(\cup s_k, _{k=1...p})=p(E)=1$, so the source of information is also ***complete*** and ***without memory***, because the delivery of a message does not depend on the previously provided messages. The experiment ***S***, respectively the answers resulting from the application of the online survey can be characterized, in a first perspective, by means of a distribution:

$$S:\begin{pmatrix} s_1 & \dots s_k & \dots s_p \\ p(s_1)\dots p(s_k)\dots & & p(s_p) \end{pmatrix}$$

Since the degree of undetermination is dependent on its probability, $i(s_k)$, as a function of the message sending probability, $i(s_k)=F(p(s_k))$, higher the probability of providing the s_k message is, equally smaller is indetermination upon the message, and therefore the information attached to this message.

The information source being presumed without memory, it results that the messages are

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independent and the information obtained at their delivery will be equal to the sum of the attached information. Consequently: $F(\cap p(s_k))=\Sigma(F(p(s_k)))$ $_{k=1...p.}$the only solution being a logarithmic function. Taking into account that the information unit is considered when a discreet, complete, and non-memory source provides two responsive messages, the logarithm will be used in the ***base two***, and the ***bit of information*** will be determined accordingly:

$F(p(s_k))=Clog_2 (p(s_k))$, $i(s_k)=C\ log_2(1/2)=-C=1=>C=-1$.

From the physical point of view, the ***entropy*** defined with the next relation measures the average information on the message, respectively the mean source's indetermination:

$H(S)=\Sigma(p(s_k)\ i(s_k))=-\Sigma(p(s_k)log_2 (p(s_k)),_{k=1...p.}$

In order to measure the influences between the interacting entities, the information theory uses **two instruments:** the informational entropy and the informational Onicescu energy, the last being the sum of the squared probabilities.

3. Transforming the survey data into information. Interactions identification

In this study, the data comes from a survey(Cazacu, 2018b), and the answers are the alternatives to each question. The method of data analyse, named "***the 2^3- experiment***", places all the numerical data inside a matrix with three entries, corresponding to the three factors involved, each of them having two levels.The online study refers to the participation in the recent Comic con 2018 event, as well as aspects of the anime culture market, also the purchase of cosplay suits or anime and manga derivatives For this purpose, we have selected the corresponding dichotomous questions:

1. Have you been informed about the Comic Con show through facebook? Yes /No
2. Did you know about this event from the cosplayers of anime characters? Yes/ No
3. Have you participated at Comic con 2018? Yes/ No
4. Have you bought cosplay costumes inspired from anime in order to participate at Comic con 2018? Yes / No
5. Have you bought anime and manga products as a result of participating to this event? Yes/No

	X= Cosplay messages (C)	Z= Comic con 2018 participants (A)	Y= ANIME PRODUCTS (B)		
			Cosplay costumes (B_0)	Anime and manga products (B_1	TOTAL
	Cosplayers messages (C_0)	visitors (A_0)	8	7	15
		buyers (A_1)	22	23	45
	Cosplayers messages total - c_0		30	30	60
	Other facebook	visitors (A_0)	8	8	16

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	announcements (C_1)	buyers (A_1)	27	27	54
	Other facebook announcements total - C_1		35	35	70
1	TOTAL=130		65	65	130

Table 1. Data resulting from the author's investigation

In the following calculations, we shall denote(Cazacu, 2018a):

a. the absolute frequencies on columns with y_{ij}, and their totals on the columns with $Y_1, Y_2, ..$

b. the absolute frequencies on lines as x_{ij}, and the line totals with $X_1, X_2, ...$

c. the absolute frequencies with z_{ij}, and the totals with $Z_1, Z_2, ...$

The independent variables ***A, A***, with the alternatives A_i (***Z variable)*** placed on the rows, represents the Cosplay respondent's preference, materialized in the purchase or the participation to the Comic con manifestation. The second independent factor is the way the respondent learned of this manifestation, represented by the ***C*** factor(***X*** variable), with the alternatives C_k, also placed on the rows, divides the set of responses as follows: cosplay messages or other facebook ads.

The dependent factor are the anime products, divided into two categories: the cosplay costumes and the anime and manga derivative products, that is the ***B*** factor, with the alternatives B_j, placed in the columns (***Y*** variable).

The triple input statistical construction consists of all variants for the ***A, B, C*** variables (Table 1). For more understanding of the relationships (interactions between variables), the experiment is repeated.

	DATA 1	REPETITION 2	UM	influence
1	4	4		130
PARTICIPANTS	11	11	2	68
ANIME PRODUCTS	4	3		0
INFORMATION	4	4		10
AB	11	12	3	2
AC	14	13	7	8
BC	4	4		0

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ABC	**1 3**	**14**	**7**	**-2**
T. rep	**6 5**	**65**	**30**	**C= 1056,25**

a)

COSPLAY PARTICIPANTS				
BASIS		**C osplay c ostumes**	**Anime and manga products**	**T OTAL**
Cosplayers messages	**vi sit**	**1**	**b**	
		a	**ab**	
Other facebook announceme nts	**p urchase**	**c**	**bc**	
		a c	**abc**	
REPETITION				
Cosplayers messages	**vi sit**	**1**	**b**	
		a	**ab**	
Other facebook announceme nts	**p urchase**	**c**	**bc**	
		a c	**abc**	

b)

Table 2. a) Numerical simulation of the experiment repetition
b) The experiment with three factors, basis and repetition

In order to identify the interactions, we complete a new table with the variables ***A, B, C***. The ***C*** factor, in this case the "message" received by the respondent, influences four subtotals, namely ***Tc, Tac, Tbc, Tabc***, the effect of ***C*** being the sum of the contributions of the factors that are influenced by it and which will be positive. The contributions of the others, uninfluenced of C, will be negative. Other environmental factors are noted T_1. (Table 3)

The specific calculations are as follows(Cazacu, 2017):

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a) the number of degrees of freedom df_1 for each factor of influence and their combinations, as well as the number of degrees of freedom df_2 for the entire table:

$$df_1 = \text{no. of levels} - 1 = 2-1 = 1 \; ; \qquad df_2 = [2^3 \cdot (2-1)] - 1 = 7 \tag{3.2}$$

b) the correction factor is determined according to the formula:

$$C = T_1^2 / 2^3 \times \text{no. of repetitions} = 130^2/16 = 1056{,}25 \quad (\text{no. of repetitions} = 2)$$

c) the sum of the squares ***SP_K*** is calculated for each factor of influence, and also for their combinations:

(3.3)

$SP_A = T^2_a /16 = 289$
$SP_B = T^2_b /16 = 0$
$SP_C = T^2_c /16 = 6{,}25$
$SP_AB = T^2_{ab}/16 = 0{,}25$
$SP_AC = T^2_{ac}/16 = 4$
$SP_BC = T^2_{bc}/16 = 0$
$SP_ABC = T^2_{abc}/16 = 0{,}25$

d) the sum of squares for repetition: $SP_REP = 0$

e) thesum of squares for the entire table: $SP_T = 301{,}75$

f) thesum of squares for the experimental error:

$$SP_E = SP_T - (SP_A + SP_B + SP_C + SP_AB + SP_AC + SP_BC + SP_ABC) - SP_REP =$$
$$= 301{,}75 - 299{,}75 - 0 = 2 \tag{3.4}$$

g) the mean ***MP_K*** squares for each factor of influence and for their combinations:

$$MP_A = SP_A/df_1 = SP_A, \ \ldots, \text{ and also: } MP_B = SP_B, \ MP_C = SP_C, \ \ldots \tag{3.5}$$

h) the square mean for the experimental error: $MP_E = SP_E/df_2 = 2/7 = 0{,}25$

The ***Fisher coefficients*** $F_k = MP_K/MP_E$, $K \in \{a,b,c,ab,ac,bc,abc\}$, for each factor of influence, and for their combinations (with the admitted error $e < 0{,}05$): (3.6)

$F_{tab} = 5{,}59$ (tabeled value)
$F_a = MP_A/MP_E = 289/0{,}25 = 1156 > 5{,}59$ (significant calculated value)
$F_b = MP_B/MP_E = 0$
$F_c = MP_C/MP_E = 6{,}25/0{,}25 = 25 > 5{,}59$ (significant calculated value)
$F_{ab} = MP_AB/MP_E = 0{,}25/0{,}25 = 1$
$F_{ac} = MP_AC/MP_E = 4/0{,}25 = 16 > 5{,}59$ (significant calculated value)
$F_{bc} = MP_BC/MP_E = 0$

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$$F_{abc} = MP_ABC/MP_E = 0,25/0,25 = 1$$

In the Table 3, we agree to denote: $T_K = \Sigma_K$(sum of contributions), for example: **Ta=-8+22-7-8+23+27-8+27=68** ;also: $T_K = T_1$, **Ta, Tb, .., Tabc.**Other calculations inserted in the Table 3 are the following:

$$SP_K = T_K^2 / 2^3 \cdot nr.\ repetitions = T_K^2 / 2^3 \cdot 2 = T_K^2/16; \quad (3.7)$$

$$MP_K = SP_K/df_1 = SP_K\ (df_1=1); \quad MP_E = SP_E/df_2 = SP_E/7; \quad (3.8)$$

The calculated Fisher coefficients, compared to **Ftab = 5,59**(the table Fisher coefficient, for the error of 5%, show significant differences, both for the singular factors and their combinations.

The first order interactions are: ***AB, BC, AC***. The 2nd order interaction is: ***ABC***.

				b	c	c	bc	K	K	SP_K $=T_K^2/16$	MP_K / MP_E
	2			3	7		7	30	1	C=105 6,25	Fcalculat: = Fcalc
-"	+"	-"	-"	+"	+"	-"	+"	8	a	289	1156,25
-"	-"	+"	-"	+"	-"	+"	+"		b	0	0
-"	-"	-"	+"	-"	+"	+"	+"	0	c	6,25	25
+"	-"	-"	+"	+"	-"	-"	+"		ab	0,25	1
+"	-"	+"	-"	-"	+"	-"	+"		ac	4	16
+"	+"	-"	-"	-"	-"	+"	+"		bc	0	0
-"	+"	+"	+"	-"	-"	-"	+"	2	abc	0,25	1
									Σ SP_K(K≠1)=	299,75	SP_T = 301,75

Table 3. The arithmetic signs to highlight the interactions.SP_T, SP_Kcalculus

The coefficients who correspond to the last category, are: ***Fa, Fc***, and ***Fac***. Thus, the major influence factors are ***A*** and ***C***, respectively the ***messages*** and the anime relative ***events***, such as cosplay events, which Comic con event is only one example.

4. Informational contribution of the independent factorsfor the buying decision process

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In order to study the influences of the entities involved in the research results, together or alone, and their decisional importance for the marketing of the anime products, we will use the same data obtained from the author's online survey.(Cazacu, 2018a)

We also keep the previous names: ***X*** - the messages variable (for the questioned anime fans) and ***Y*** - the representative variable for the anime products, namely the purchase or preference for the cosplay costume, or for the anime and manga derivatives and ***Z***-the Comic con event variable. We intend to evaluate the influence of the event factor ***C***- the ***Z*** variable upon the anime products ***B***(the ***Y*** variable, because the messages can not influence directly the purchasing of the anime rpoducts, only through the participation to the anime event. We will use some of the informational statistical instruments.

We are interested about the influence of the event activity upon the anime and the cosplay costumes market, in other words, the influence of the factor represented by the variable ***Z*** on the one represented by the variable ***Y***, also by the information input brought to it from the combination of the factors represented by the ***X*** and ***Z*** variables. The total population existing in the three dimensions, ***n, m, p***, corresponding to the variables ***X , Y, Z***, is denoted with ***T ...***. Also, we have denoted some totals, as follows:

Tij = the influences of the alternative in the line ***i***, and the column ***j***
T_i = the partial total on the line ***i***
T_j = the partial total on the column ***j***
$T_{i.k}$= the total of the line ***i***, in the matrix number ***k***
$T_{j.k}$= the total of the column ***j***
T .. k = the general sum of the matrix number ***k***

In order to calculate the conditioned energies by the alternatives ***i, j, k*** of the variables ***X, Y, Z***, we will use the formula of the conditioned probability.

Thus, the importance of the attributes of Z and ***Y*** variables, is first calculated, using the ***Onicescu information energy***. The total energy of the set ***Yover the structures of the alternatives of the variable X*** is defined by the formula:

$$E(Y/Z)=\sum_{k=1}^{p=2}E(Y/Z_k)=\sum_{k=1}^{2}\sum_{j=1}^{2}\left(\frac{y_{kj}}{T_{k.}}\right)^2=\left(\frac{15}{31}\right)^2+\left(\frac{16}{31}\right)^2+\left(\frac{45}{99}\right)^2+\left(\frac{54}{99}\right)^2=\mathbf{1,0046}$$

(4.1)

also, that of the set ***X over the structures of the alternatives of the variable Y***, similarly:

(4.2)

$$E(Z/Y)=\sum_{j=1}^{m=2}E(Z/Y_j)=\sum_{j=1}^{2}\sum_{k=1}^{2}\left(\frac{z_{kj}}{T_{.j}}\right)^2=\left(\frac{15}{60}\right)^2+\left(\frac{45}{60}\right)^2+\left(\frac{16}{70}\right)^2+\left(\frac{54}{70}\right)^2=\mathbf{1,2723}$$

We will continue by reporting to each variable attributes, in order to make a difference. The ***information energies of Z in the presence of each alternative structure of Y*** are calculated as follows:

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$$E(Z/Y_1)=\sum_{k=1}^{2}\left(\frac{z_{k1}}{T_{.1}}\right)^2=\sum_{k=1}^{2}p^2(Z_k/Y_1)=\frac{15^2+45^2}{60^2}=\mathbf{0,625};\ E(Z/Y_2)=\mathbf{0,647} \quad (4.3)$$

so the ***average energy*** of the variable ***Zreported to the alternatives of Y***, with the probabilities corresponding to them, is:

$$\overline{E(Z/Y)}=\sum_{j=1}^{2}p(Y_j)\cdot E(Z/Y_j)=\frac{60}{130}\cdot 0,625+\frac{70}{130}\cdot 0,647=\mathbf{0,637} \quad (4.4)$$

All the same, the ***information energies of Y in the presence of each alternative structure of Z*** are calculated as follows:

$$\begin{aligned}E(Y/Z_1)&=\sum_{j=1}^{2}\left(\frac{z_{1j}}{T_{.1}}\right)^2=\sum_{j=1}^{2}p^2(Y_j/Z_1)=\left(\frac{15}{60}\right)^2+\left(\frac{16}{70}\right)^2=\mathbf{0,11474;}\\ E(Y/Z_2)&=\sum_{j=1}^{2}\left(\frac{z_{2j}}{T_{.2}}\right)^2=\sum_{j=1}^{2}p^2(Y_j/Z_2)=\left(\frac{45}{60}\right)^2+\left(\frac{54}{70}\right)^2=\mathbf{1,1576}\end{aligned} \quad (4.5)$$

and the ***average energy*** of the variable ***Yreported to the alternatives of Z***:

$$\begin{aligned}\overline{E(Y,Z)}&=\sum_{k=1}^{p}E(Y/Z_k)\frac{T_{..k}}{T_{...}}=\sum_{k=1}^{p}E(Y/Z_k)\cdot p(Z_k)=E(Y/Z_1)\cdot p(Z_1)+E(Y/Z_2)\cdot p(Z_2)=\\ &=(p^2(Y_1/Z_1)+p^2(Y_2/Z_1))\cdot p(Z_1)+(p^2(Y_1/Z_2)+p^2(Y_2/Z_2))\cdot p(Z_2)=\\ &=\left[\left(\frac{15}{60}\right)^2+\left(\frac{16}{70}\right)^2\right]\cdot\frac{31}{130}+\left[\left(\frac{45}{60}\right)^2+\left(\frac{54}{70}\right)^2\right]\cdot\frac{99}{130}=\mathbf{0,90892072}\end{aligned} \quad (4.6)$$

The attributes $\boldsymbol{Y_i}$ are the most ***important for the decision***, the purchasing decision process being determined during the event(announced by the messages received from the cosplayers, or other facebook ads).

The last result means that the ***Y*** variable has a significant ***mean energy*** in the presence of the ***Z*** variable, so participating or just visiting such events influences the trade of the cosplay costumes and of the derivative anime products.

The "***information input***" ***AI*** ("***transinformation***") received by the ***Y*** variable, due to the ***Z*** variable is calculated with the energies difference:

$$AI(Y/Z)=\overline{E(Y/Z)}-E(Y)=0,90892072-0,5=0,40892072\cong\mathbf{0,41} \quad (4.7)$$

For the calculation of the ***medium energy*** of the ***Y*** variable, conditioned by the combined ***X*** and ***Z*** variables presence, we use the following calculus (***m = n = p = 2***):

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$$E(Y/X_i,Z_k)=\sum_{j=1}^{m}\frac{x_{ijk}}{T_{i.k}}$$

$$\overline{E(Y/X\otimes Z)}=\sum_{i=1}^{n}\sum_{k=1}^{p}E(Y/X_i,Z_k)\cdot\frac{T_{i.k}}{T_{...}}=E(Y/X_1,Z_1)\cdot\frac{T_{1.1}}{T_{...}}+E(Y/X_1,Z_2)\cdot\frac{T_{1.2}}{T_{...}}$$
$$+E(Y/X_2,Z_1)\cdot\frac{T_{2.1}}{T_{...}}+E(Y/X_2,Z_2)\cdot\frac{T_{2.2}}{T_{...}}=((\frac{y_{111}}{T_{1.1}})^2+(\frac{y_{121}}{T_{1.1}})^2)\cdot\frac{T_{1.1}}{T_{...}}+((\frac{y_{211}}{T_{2.1}})^2+ \quad (4.8)$$
$$+(\frac{y_{221}}{T_{2.1}})^2)\cdot\frac{T_{2.1}}{T_{...}}+((\frac{y_{112}}{T_{1.2}})^2+(\frac{y_{122}}{T_{1.2}})^2)\cdot\frac{T_{1.2}}{T_{...}}+((\frac{y_{212}}{T_{2.2}})^2+(\frac{y_{222}}{T_{2.2}})^2)\cdot\frac{T_{2.2}}{T_{...}}=\frac{8^2+8^2}{16^2}\cdot\frac{16}{130}+$$
$$+\frac{7^2+8^2}{15^2}\cdot\frac{15}{130}+\frac{22^2+27^2}{49^2}\cdot\frac{49}{130}+\frac{23^2+27^2}{50^2}\cdot\frac{50}{130}=0{,}5034495$$

A= ACTIVITY-Z	C=MESSAGES-X	B=ANIME PRODUCTS-Y Cosplay costumes	Derivative products	TOTALS
visitors	Cosplayers messages	8	8	16
	Other facebook announcements	7	8	15
	total	15	16	31
buyers	Cosplayers messages	22	27	49
	Other facebook announcements	23	27	50
	total	45	54	99
	TOTALS	60	70	130

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Table 4. *Y set* under the influences of the *X* and *Z sets*

Comparing the medium energies of the ***Y*** set, in the presence of ***Z***-set(formula no. 6), and in the combined presence of the ***X, Z***-sets(formula no. 8), we conclude that the event itself has the most powerful influence over the decision of purchasing process, and it's a reasonable conclusion: the messages are important, but only because they lead to the event, where the fans, the great part of them, come dressed in anime costumes, and also have the oportunity to buy derivated anime products, from the specialised sellers of such merchandise.

From these results we can see that the energy received by the ***Y*** variable, from the ***X⊗Z*** combination, that means, both the influences of the messages and the relative events, is significant, hence the ***importance of e-marketing*** in the development of the anime market .

Conclusions

The system formed by the independent ***X, Z*** variables and the dependent ***Y*** variable, considered as an ***I / O*** system, was analysed, in the present study, as a function of one or two variables: ***Y = F (X)*** , ***Y = F (Z),*** and also ***Y = F (X, Z),*** having the appearance of a cybernetic system with only ***X*** or ***Z*** or both ***X*** and ***Z*** input, and the ***Y*** output.

Z variable, that is the "***activity"*** factor ***A*** is important for the decision making process because it determines the purchase of the cosplay suits and anime derived products through participation in the anime conventions, thus determining the evolution of the ***Y*** variable, meaning the "***anime products***" factor ***B***. On the other hand, the "***messages***" factor ***C***, represented by the ***X*** variable, transmitted directly from the cosplayers or from other facebook ads, have an important role in organizing this kind of events, consequently, also for the evolution of anime culture market.

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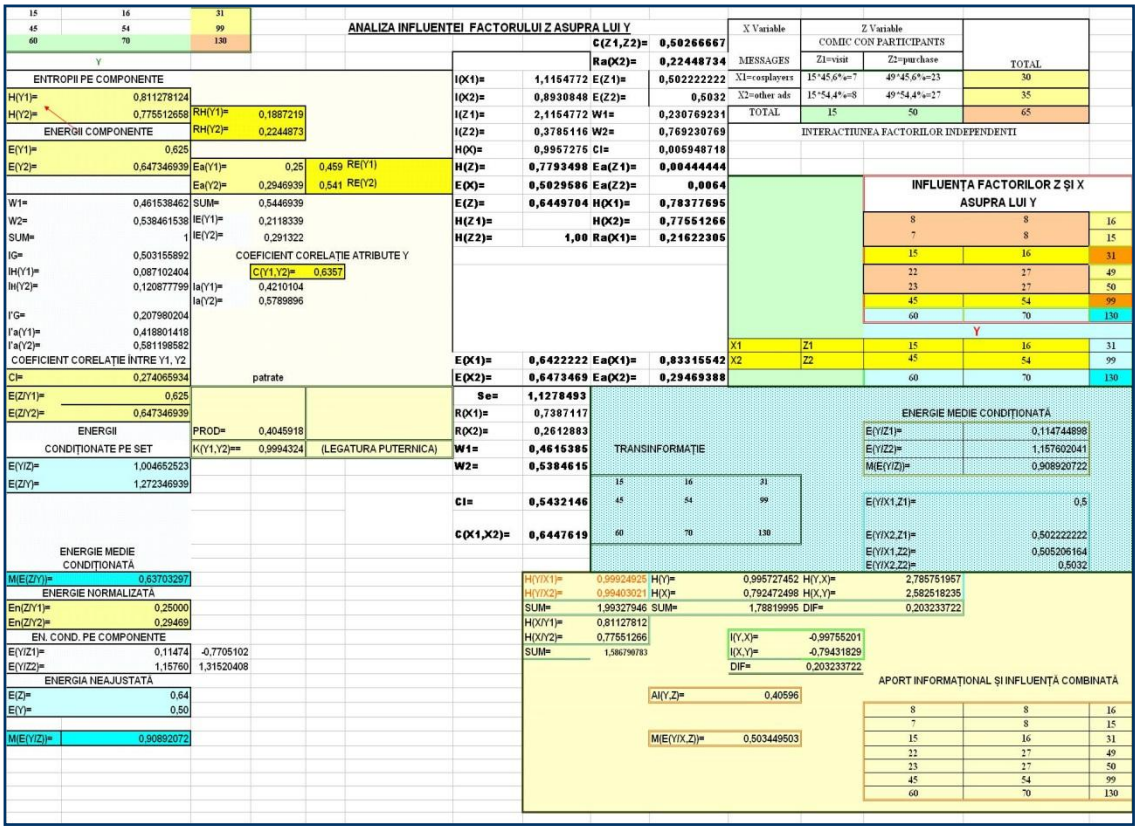
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ANNEX

ANALYSIS OF INFLUENCES, USING MS OFFICE EXCEL PROGRAM

		MPE=SPE/7=	0.25										
	SPT=	64	484	49	64	529	729	64	729	2712			
		1	a	b	c	ab	ac	bc	abc				
		8	22	7	8	23	27	8	27	130	T1	1056.25	Fcalc
64	8	"-"	"+"	"-"	"-"	"+"	"+"	"-"	"+"	68	Ta	289	1156
484	22	"-"	"-"	"+"	"-"	"+"	"-"	"+"	"+"	0	Tb	0	0
49	7	"-"	"-"	"-"	"+"	"-"	"+"	"+"	"+"	10	Tc	6.25	25
64	8	"+"	"-"	"-"	"+"	"+"	"-"	"-"	"+"	2	Tab	0.25	1
529	23	"+"	"-"	"+"	"-"	"-"	"+"	"-"	"+"	8	Tac	4	16
729	27	"+"	"+"	"-"	"-"	"-"	"-"	"+"	"+"	0	Tbc	0	0
64	8	"-"	"+"	"+"	"+"	"-"	"-"	"-"	"+"	-2	Tabc	0.25	1
729	27								SPrep=	0.25	SPT=	299.75	
2712	130									correction	SST=	301.75	
			678	648	30	SPREP	0.25		SPE=	SST-SPT-SPREP=	ERREP-SPREP=	1.75	
4	4	8	16	16	1358	SPT				MPE=SPE/7=	0.25		
11	11	22	121	121									
4	3	7	16	9		ERREP=	2						
4	4	8	16	16									
12	11	23	144	121									
14	13	27	196	169									
4	4	8	16	16									
13	14	27	169	196									

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