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# Principles of social responsibility for the information technology management in network organizations

## Principios de responsabilidad social para la gestión de la tecnología de la información en las organizaciones de redes

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Received: 23/10/2018 • Approved: 30/03/2020 • Published 09/04/2020

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#### ABSTRACT:

The objective of this study meant to explain the social responsibility principles employed in the management of information technology in public organizations, from a quantitative descriptive procedure and track. The most extraordinary technology of the advanced Internet and the leading tool of Web 2.0 technology can be perceived in the antiquated groupware technology, but its current utilization is exceeding anything the organizations of ancient could have imagined. Our research, administered on a broad diversity of materials, was aimed at the extension of a clustering pattern based on both usage and perception variables, coupled with distinct psychographic predictor objects, such as organizations' attitude towards social responsibility, organizations' utilitarian and hedonic impulse, normative beliefs, perceived self-efficacy, various lifestyle variables, as well as overall trust and perception of privacy-associated risks. Our research model was revealed using discriminant analysis and it enables to settle forward four different organization groups in terms of social responsibility. It is found in the study that social responsibility shows a significantly positive correlation with information technology management. The contribution of the study demonstrates the image of information systems in network organizations takes relative responsibility on social media. The study also addresses at large the management implications of the findings and suggests innovative ways to deal with moral issues correlated with the ever-growing lack of online privacy.

**Keywords:** Marketing management, social network services, ethical aspects, web 2.0.

#### RESUMEN:

El objetivo de este estudio fue explicar los principios de responsabilidad social empleados en la gestión de la tecnología de la información en organizaciones públicas, utilizando un procedimiento cuantitativo y descriptivo. La tecnología más extraordinaria de Internet avanzada y la herramienta principal de la tecnología Web 2.0 se puede ver en la tecnología de groupware pasada de moda, pero su uso actual está excediendo todo lo que las organizaciones antiguas podrían haber imaginado. Nuestra investigación, aplicada a una amplia variedad de materiales, tenía como objetivo extender un patrón de agrupación basado en variables de uso y percepción, junto con distintos objetos predictivos psicográficos, como la actitud de las organizaciones hacia la responsabilidad social, el impulso utilitario y hedónico de las organizaciones, creencias normativas, autoeficacia percibida, diversas variables de estilo de vida, así como confianza general y percepción de los riesgos asociados con la privacidad. Nuestro modelo de investigación se reveló mediante análisis discriminante y nos permite establecer cuatro grupos organizacionales diferentes en términos de responsabilidad social. Se encontró en el estudio que la responsabilidad social muestra una correlación significativamente positiva con la gestión de la tecnología de la información. La contribución del estudio demuestra que la imagen de los sistemas de información en las organizaciones de red asume una responsabilidad relativa en las redes sociales. El estudio también aborda las implicaciones de la gestión de los resultados en general y sugiere formas

# 1. Introduction

## 1.1. Background

The notion of "information" is the essence of the informational issues hypothesis in civic knowledge. This concept draws the concentration of scientists from several realms of methodologists, science and scholars. And furthermore, this gigantic commitment of conceiving a universal theory of information has particularly started (Mantilla, 2018; Liudmila *et al.*, 2018). The information of social responsibility must be achieved in organizations as a decisive commitment, in order to trade business strategy. It symbolizes the commitment of the organization between its environmental and social surrounding, causing its accomplishment significant for the organization's commission as sound as for the summary of strategic perspectives and lines, by means of the amalgamation of interest organizations that permits recognizing advantages and ventures. Ramírez *et al.* (2018) marked social responsibility for the commitment that organizations arrogate towards civilization in order to avail sustainable advancement, the equivalence between social welfare and industrial growth. Consequently, ORS is the spontaneous inventiveness that surpasses constitutional obligations, social, environmental and involving financial aspects. It necessitates recognition of organizational means and human expertise to deliver reserves for distinct objectives, develop the authenticity of the organization's systems and security, strengthen the passage to services and profit the scene.

As such, social network localities are contemplated as the principal selection of internet organizations for advertising ideas and distribution content (European Commission, 2010). According to the US Securities and Exchange Commission (SEC), larger than 250 million photos are transmitted each day on Facebook (SEC, 2012). Furthermore, an average Facebook user creates 90 items of content every month and he is correlated to a universal network of 130 companions (Burbary, 2011). Information with the Social Comparison Theory assumptions, social network sites' organizations among a highly productive network is plentiful likely to commit to the content creation, considering people are driven to follow up with their companions and participate as well (Burke *et al.*, 2009).

Beyond being a conduit of transmission and content dynamo, social responsibility can additionally play an essential position in complex models of civic enterprises. Social responsibility has been distinguished for its potential of assembling and correlating multiple social activities (Ellison *et al.*, 2009). Practicing social responsibility, people can cooperate and develop together for a public foundation, social responsibility being able to bond and link people unitedly.

## 1.2. The benefits and risks associated with social responsibility

With the numerous advantages that social chain sites render, associated contingencies mount. The hugest uncertainty of using social network sections in isolation, as social network sits presentation information which can profit sponsors, cybercriminals and site providers (Shafie *et al.*, 2011; Marina *et al.*, 2018).

In concerns to sponsors, social network sites' organizations should be cautioned about what information is contributed to promoters in aggregate information and that social network sites' organizations should hold the claim to opt-out of primary advertisement (The Office of the Privacy Commissioner of Canada, 2009). Individuals' benefit to privacy entitles them to be responsible to manage the distribution of information and the means aforementioned public information can and will be adopted (Barnes, 2006).

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## 2. Methodology

### 2.1. Discriminant Function Analysis

The systematic works of literature were silent in current ages with regard to the clustering of social networking and site organizations. Hence, this study aims to propagate between four different groups: occasional organizations, moderate organizations, frequent organizations, and

heavy organizations. They will be discriminated according to their practices with regard to eleven distinct variables, further divided up in the concluding analysis.

## 2.2 Mathematical formula and tests

The information was assembled utilizing a questionnaire conveyed on students. All the respondents had at least one social responsibility account that they exercised at least once in three months. We employed an aggregate of paper-based and online polls and we were able to go gather 288 entire replies.

The individualistic variables were calibrated by applying a 7-point Likert measure. The Discriminant Function Analysis (DA) from SPSS software (Tabachnick, 2001) was employed to analyze the differences between the three organizations of social responsibility. The examination implements a distribution function that determines to which collections an individual relates:

$$s_i = c_i + w_{i1} * x_1 + w_{i2} * x_2 + \dots + w_{im} * x_m$$

Where "i" denotes the individual groups or sites, and amounts 1,2, ..., "m" denote biomarkers (variables); "c<sub>i</sub>" is the fixed for collection "i", and "w<sub>im</sub>" is the ponderation agent of a variable (biomarkers) "m" for collection "i". "s<sub>i</sub>" is the distribution amount. The discriminant function analysis point for any case could be produced with raw points and unstandardized discriminant function points. This discriminant function analysis coefficients are, by definition, chosen to maximize differences between the groups.

Consequently, the four recommended groups diversify as the number of incidents. Table 1 shows the tests of equality, and designates there is a powerful demographic indication that the four organizations fully differ according to the predictor variables.

Additional, Log determinants and Box's M is interpreted. Yet, due to the evidence that the individual measurements are not uniform and  $p > 0.001$ , Box's M test is not significant (Tabachnick & Fidell, 2001). But Log Determinants in Table 2 are substantially parallel which determines that the groups dissent.

**Table 1**  
Tests of Equality of Group Means

	Wilks' Lambda	F	df1	df2	Sig.
Zscore(UTIL1)	,582	286,299	3	1064	,000
Zscore(UTIL2)	,576	366,206	3	1064	,000
Zscore(HEDON1)	,552	288,402	3	1064	,000
Zscore(HEDON2)	,557	345,017	3	1064	,000
Zscore(ATT1)	,702	150,004	3	1064	,000
Zscore(ATT2)	,627	177,240	3	1064	,000
Zscore(ATT3)	,726	127,288	3	1064	,000
Zscore(Self_Eff1)	,918	4,421	3	1064	,003
Zscore(Self_Eff2)	,931	10,407	3	1064	,000
Zscore(Self_Eff3)	,952	10,256	3	1064	,000
Zscore(TRUST1)	,645	178,288	3	1064	,000
Zscore(TRUST2)	,795	121,643	3	1064	,000
Zscore(RISK1)	,823	81,319	3	1064	,000
Zscore(RISK2)	,809	73,151	3	1064	,000
Zscore(Life-Sty1)	,735	114,999	3	1064	,000
Zscore(Life_Sty2)	,633	180,180	3	1064	,000
Zscore(Life_Sty3)	,790	99,817	3	1064	,000
Zscore(Norm_Beli1)	,626	194,006	3	1064	,000
Zscore(Norm_Beli2)	,518	304,593	3	1064	,000
Zscore(Norm_Beli3)	,610	326,532	3	1064	,000
Zscore(Norm_Beli4)	,656	194,373	3	1064	,000

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**Table 2**  
Log Determinants

Cluster Number of Case	Rank	Log Determinant
1	19	-12,936

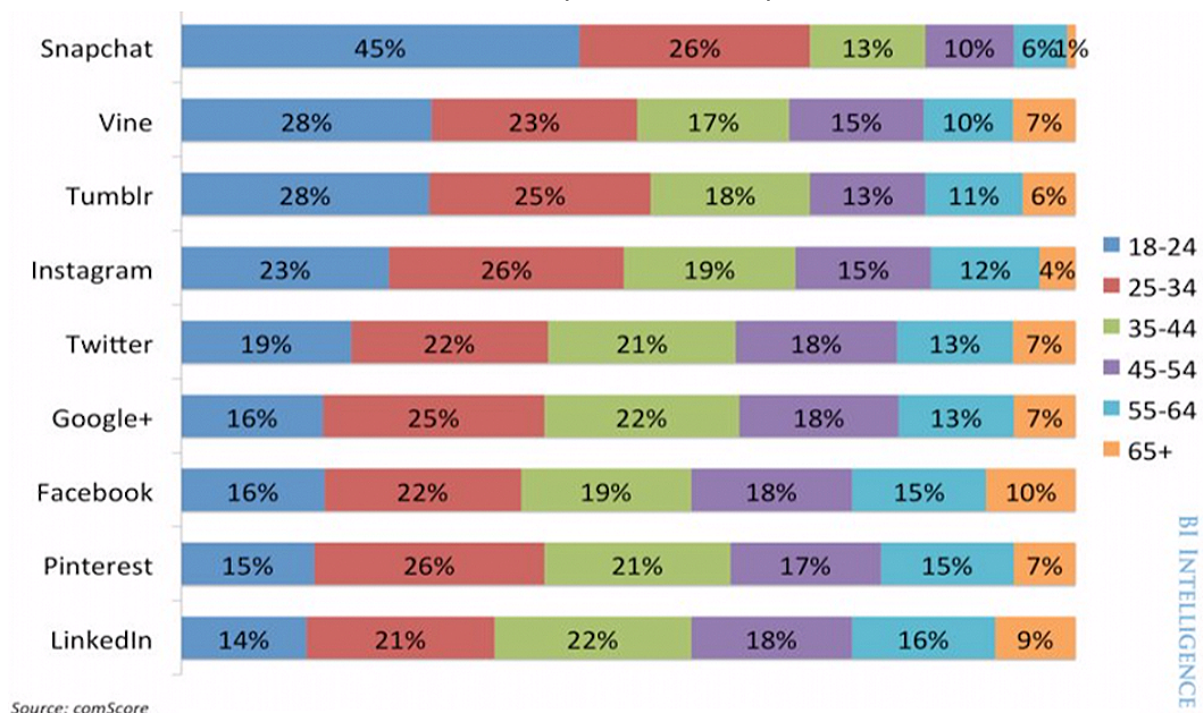
2	19	-12,633
3	19	-12,703
4	19	-12,051
Pooled within-groups	19	-11,265

The ranks and natural logarithms of determinants printed are those of the group covariance matrices.

### 3. Clustering Social Networks organizations

According to the variety of social network enterprises organizations are involved in and their enthusiastic fondness, social network organizations have been assigned into six clusters (Tibrat, 2011; Ramírez *et al.*, 2018). The “see and be seen” are an exceptional cluster of social network organizations, since they are always looking out for new associations and in the same time, they are the most brainwashed by vending relevant exercises (Send and Michelis , 2014). In figure 1, the distribution between social network and sites organizations distinguish six categories by connectors’ age.

**Figure 1**  
Social media impact on electronics consumer (Kane et al., 2014)



### 4. Organization model of social responsibility

The eigenvalues in Table 3 present report on the individual of the discriminate functions constructed, which are corresponding to the number of suggested groups minus 1 (Burns and Burns, 2009). In the prevailing case, there have two functions, in which reveals that 86.4% estimates for the variation in the subordinate variable and the second single accounts for 12.2% and the third for barely 1.4% of the variety. Furthermore, canonical correlation of the first function is extraordinary, with a value of 0.942 which symbolizes that the discriminates adequately, while the canonical correlation between the second and the third functions.

**Table 3**  
Eigenvalues

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Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	4,852a	86,4	88,4	,942
2	,701a	12,2	96,8	,614
3	,079a	1,4	100,0	,257

a. First 3 canonical discriminant functions were used in the analysis.

Besides, the consequence of the discriminant function is examined with Wilks' lambda (Burns and Burns, 2009). The effects of the Wilks' lambda analysis in Table 4 designates that the three functions are profoundly significant ( $p < 0.001$ ).

**Table 4**  
Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 3	,097	2521,213	56	,000
2 through 3	,542	635,406	37	,000
3	,935	75,928	17	,000

The relevant weight of individual of the submitted independent variables is significant to be approached as the section of the discriminant analysis. This is evaluated with the regulated canonical discriminant function coefficients manifested in Table 5.

**Table 5**  
Standardized Canonical Discriminant Function Coefficients

	Function		
	1	2	3
Zscore(UTIL1)	,212	-,027	-,027
Zscore(UTIL2)	,157	,076	-,194
Zscore(HEDON1)	,163	-,044	-,109
Zscore(HEDON2)	,275	-,185	,285
Zscore(ATT1)	,183	,135	-,014
Zscore(ATT2)	,217	-,209	-,029
Zscore(ATT3)	,184	-,180	-,089
Zscore(Self_Eff2)	,008	,123	,621
Zscore(Self_Eff3)	,011	,202	-,446
Zscore(TRUST1)	,251	-,182	,242
Zscore(TRUST2)	,175	-,184	,272

Zscore(RISK1)	-,222	,194	,295
Zscore(RISK2)	-,001	,287	,155
Zscore(Life-Sty1)	,042	,298	-,511
Zscore(Life_Sty2)	,222	,527	,392
Zscore(Norm_Beli1)	,221	-,073	,335
Zscore(Norm_Beli2)	,153	,269	-,133
Zscore(Norm_Beli3)	,244	-,045	-,309
Zscore(Norm_Beli4)	,189	,296	,136

A different method to determine the corresponding importance of predictors is the structure matrix in Table 6, which registers the relationship of each variable with each discriminant function (Burns and Burns, 2009). Attitude towards social responsibility persists as the mightiest predictor of the discriminant function. A 0.30 value is deemed as the “cut-off between meaningful and less significant variables” (Burns and Burns, 2009).

**Table 6**  
Structure Matrix

	Function		
	1	2	3
Zscore(UTIL2)	,434*	-,087	-,126
Zscore(HEDON2)	,493*	-,164	,194
Zscore(HEDON1)	,400*	-,149	-,076
Zscore(Norm_Beli 2)	,369*	,360	-,138
Zscore(UTIL1)	,339*	-,123	-,008
Zscore(Norm_Beli 3)	,365*	,231	-,166
Zscore(Norm_Beli 1)	,327*	,162	,169
Zscore(ATT2)	,310*	-,147	-,095
Zscore(TRUST1)	,301*	-,273	,214
Zscore(ATT1)	,295*	-,048	-,036
Zscore(ATT3)	,252*	-,227	-,088
Zscore(Life-Sty )	,222	,619*	,162
Zscore(Life-Sty1)	,170	,407*	-,299
Zscore(Life-Sty3)b	,168	,329*	,064

Zscore(Norm_Beli 4)	,307	,398*	,005
Zscore(RISK23)	-,169	,299*	,234
Zscore(Self_Eff3)	,028	,181*	-,145
Zscore(Self_Eff2)	,043	,145	,339*
Zscore(RISK1)	-,186	,267	,353*
Zscore(TRUST2)	,231	-,259	,309*
Zscore(EP2)b	,017	,028	,080*
Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions Variables were ordered by absolute size of correlation within function.			
* Largest absolute correlation between each variable and any discriminant function			
b. This variable was not used in the analysis.			

## 5. Conclusions and suggestions

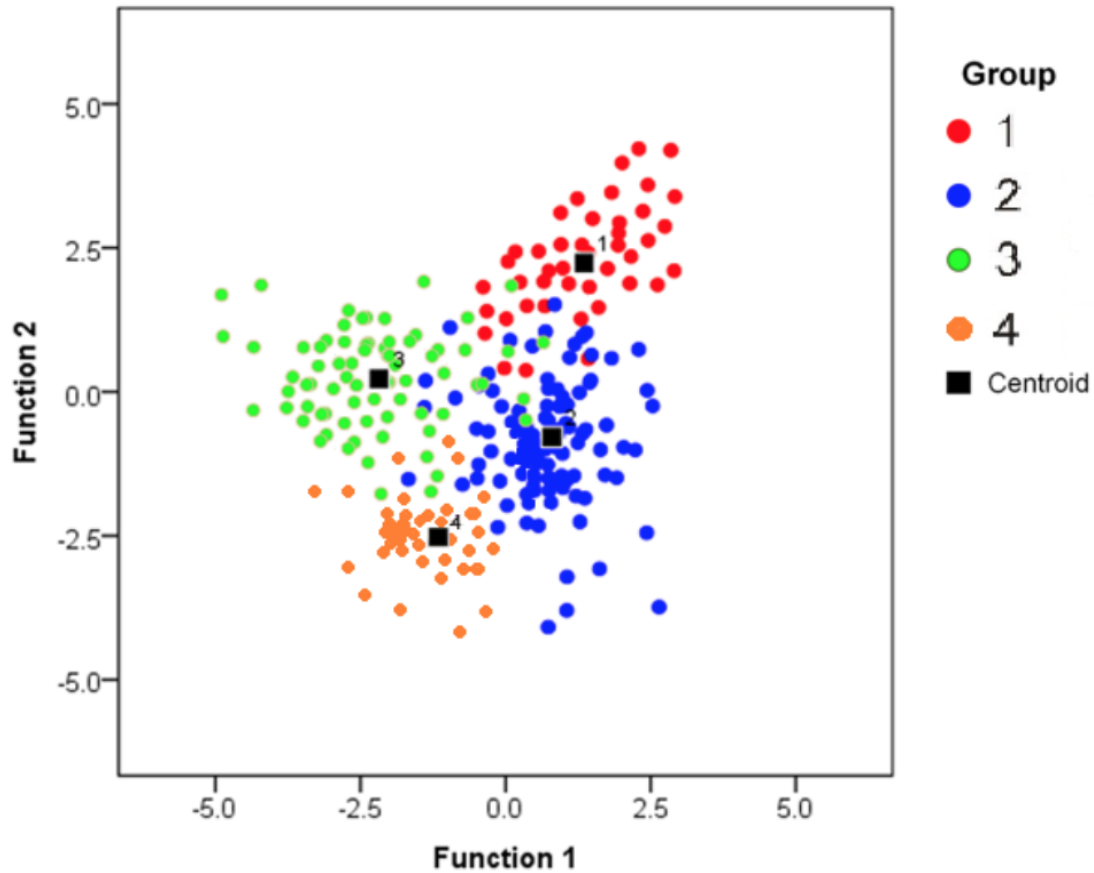
Finally, the argument of the functions at group centroids was shown in Table 7. The centroids or the group means of the predictor variables are related to illustrate all of the three organizations of the social responsibility practice in terms of their portrait (Burns and Burns, 2009). Moreover, the canonical discriminant functions are depicted in figure 2. The scattering distribution events as seen in Table 8 register that 96.2% of incipiently organization claims were perfectly matched. It is also found in the study that social responsibility shows a significantly positive correlation with information technology management. And these results agreed with CARDONA (2018) who pointed social responsibility in the management of human talent in public health organizations. The contribution of the study demonstrates the image of information systems in network organizations takes relative responsibility on social media. The research model was revealed using discriminant analysis and it enables to settle forward four different organization groups in terms of social responsibility. The study also addresses at large the management implications of the findings and suggests innovative ways to deal with moral issues correlated with the ever-growing lack of online privacy.

**Table 7**  
Functions at Group Centroids

Cluster Number of Case	Function		
	1	2	3
1	2,563	-,042	,224
2	-3,883	-,135	,323
3	-,279	-1,036	-,312
4	-,421	1,331	-,252
Unstandardized canonical discriminant functions evaluated at group means			



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**Figure 2**  
 Canonical Discriminant Functions



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**Table 8**  
 Classification Results<sup>a</sup>

Cluster Number of Case			Predicted Group Membership				Total
			1	2	3	4	
Original	%	1	98,3	,0	1,1	,6	100,0
		2	,0	97,9	1,1	1,1	100,0
		3	2,5	,0	95,0	2,5	100,0
		4	3,3	2,5	7,0	9,3	100,0

a. 96,2% of original grouped cases correctly classified.

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Revista ESPACIOS. ISSN 0798 1015  
Vol. 41 (Nº 12) Year 2020

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