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EXPERIMENTAL

USE OF SOCIAL NETWORKS IN OPERATIONAL AND STRATEGIC MANAGEMENT: THE CASE OF THE ECUADORIAN LAND FORCE

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1. INTRODUCTION

Social network

Facilitates the flow of information through the interaction of people over internet-based applications. Their evolution has a positive impact on social, economic, political, and technological domains. Twitter, Facebook, and YouTube provided a large volume of data online

Public organizations.

This sector has generated transformations in which incorporating technological tools to deepen the relationship with citizens stands out (Criado & Rojas, 2013).
The implementation of different types of e-governments impacts on the expectations of the citizen and the levels of trust.

2. BACKGROUND

Social Networking and Communications

- Social applications can mobilize people together around ideas and principles.
- Government institutes recognize the importance of using social applications as tools to convey a political or economic message.
- We visualize how influential networking applications (e.g., Facebook, Instagram, Twitter) and other tools are a means of spreading information.

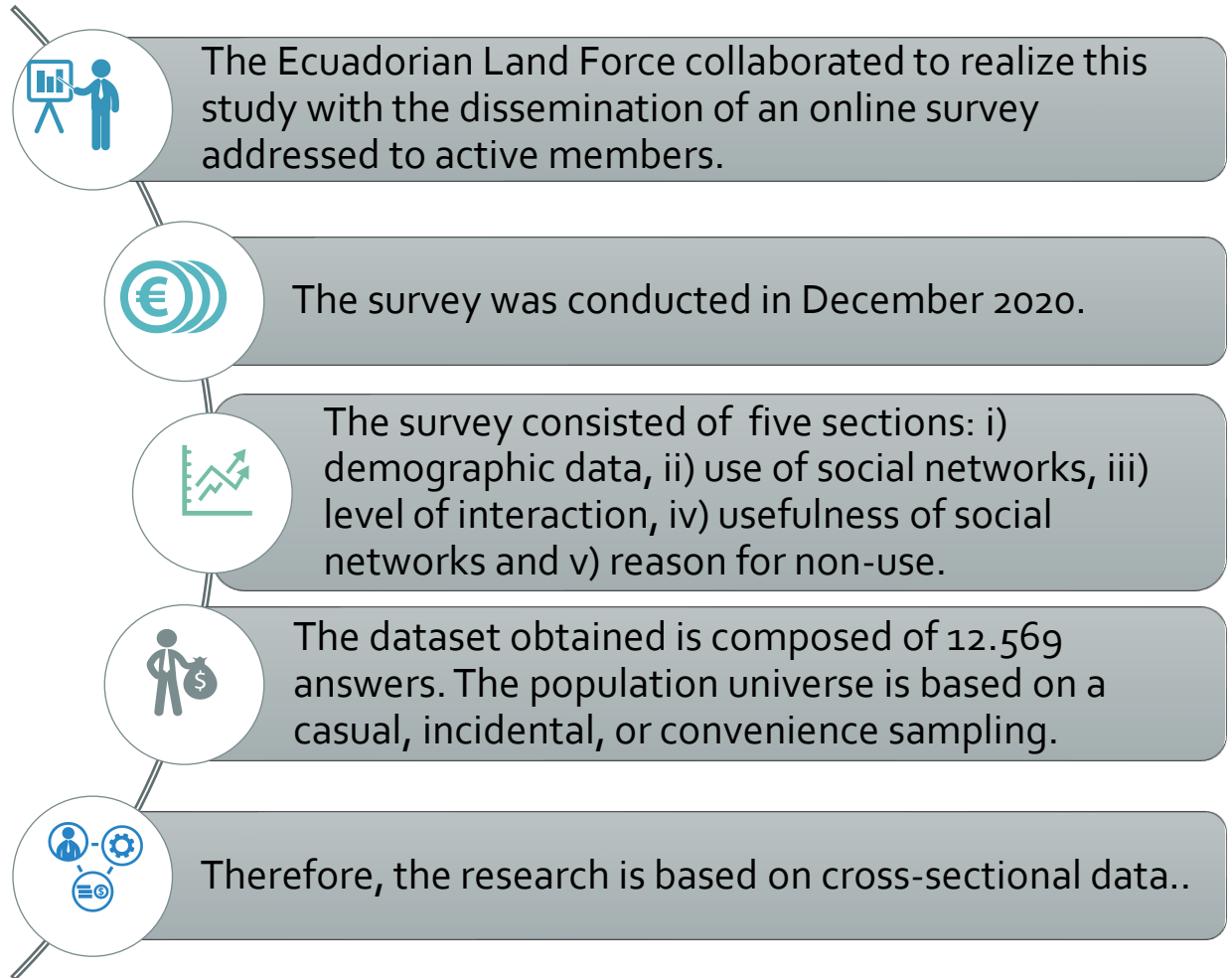
Social Networking in the Military Field

- Public information has two essential components: the right to know and the right to transparency.
- These elements generate responsibility and commitment from the government to generate policies, laws, and decisions that favor social welfare to break the daily tensions between government and citizens.
- Social networks introduce new forms of communication by allowing society the right to express its opinion and generate debate in public spaces.



3. METHODOLOGY

3.1. Data Acquisition



3. METHODOLOGY

3.1. Data Analysis



- The responses obtained from the survey were analyzed using IBM SPSS Statistics software.
- The research findings are based on the results of the questionnaires; for their interpretation, statistical measures of central tendency and frequencies are considered.

4. RESULTS

4.1. Demographic Data

Detail	n	%
Gender		
Male	12182	96,9
Female	387	3,1
Categorized age		
Less or equal to 20 years	70	0,6
Between 21 and 30 years	4573	36,4
Between 31 and 40 years	5132	40,8
Between 41 and 50 years	2621	20,9
More or equal to 51 years	173	1,4
Military hierarchy		
Brigadier General	4	0
General of Division	1	0
Colonel	27	0,2
Lieutenant Colonel	112	0,9
Major	357	2,8
Captain	454	3,6
Lieutenant	404	3,2
Second Lieutenant	229	1,8
Cadet	1	0
Mayor Noncommissioned Officer	3	0
First Warrant Officer	62	0,5
Warrant Officer	414	3,3
First Sergeant	1175	9,3
Staff Sergeant	2799	22,3
Lance Corporal	2191	17,4
Second Lance Corporal	2685	21,4
Private	1650	13,1
Trainee	1	0

Table 1: Informative data by gender, age and military hierarchy.

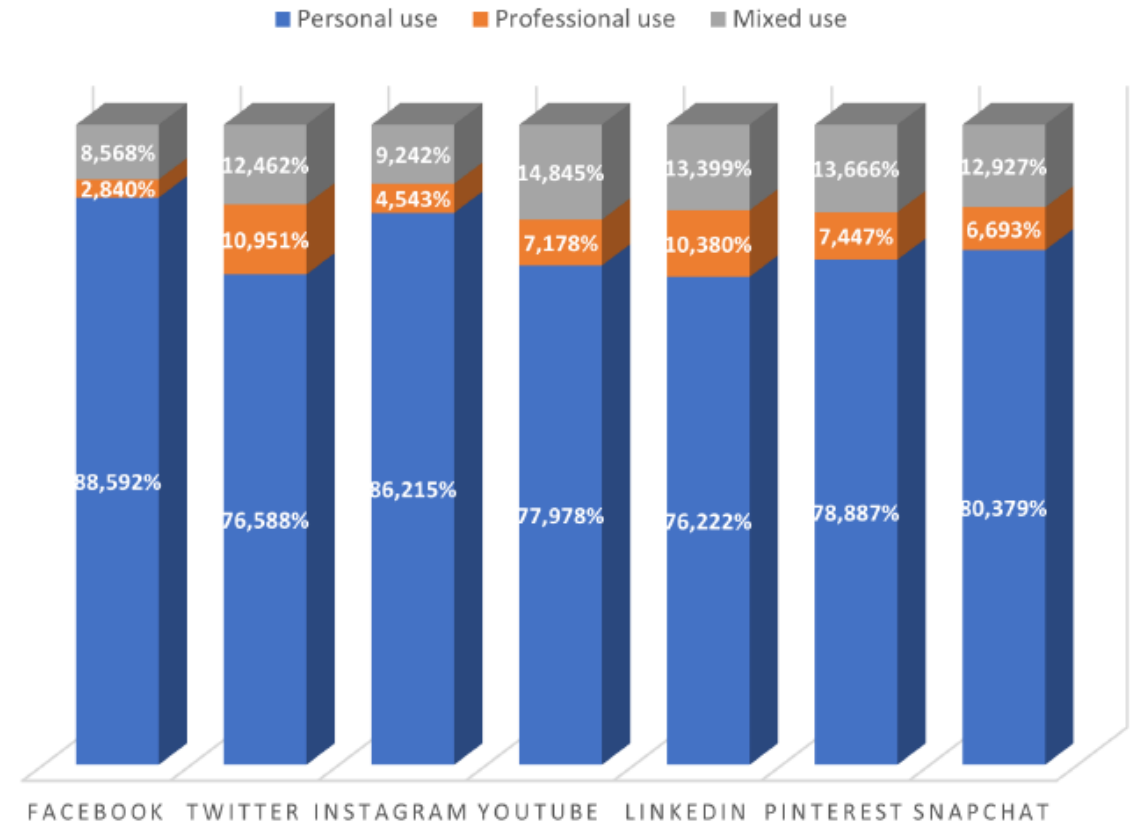
Variable	Chi Square	Sig.	Phi	Cramer's V	Lambda
Profile in social networks - Age	267,610	0,000	0,146	0,146	0,000
Profile in social networks - Gender	6,250	0,012	0,022	0,022	0,000
Frequency of access - Age	165,192	0,000	0,124	0,072	0,000
Interest in publications - Age	254,114	0,000	0,154	0,077	0,008
Frequency of access - Military hierarchy	374,528	0,000	0,187	0,094	0,021

Table 2: Statistical measures of association.

4. RESULTS

4.2. Usefulness and Interactions in Social Networks

- ❖ Among military members who own a phone on social networks, 65,40% access daily, 21,10% at least once a week, 11,40% less frequently, and 2,20% at least once a month.
- ❖ Regardless of the hierarchical rank, the time of use is concentrated in 15 to 30 minutes.
- ❖ Personal use predominates in all social networks, reaching an average of 80,69%.
- ❖ Regarding the official social networks used by the Army, Facebook (73,00%), Instagram (13,70%) and Twitter (11,60%) stand out as the most followed.



4. RESULTS

4.2. Usefulness and Interactions in Social Networks

	Read		Open Links		Comment		Share or Retweet		React or Like	
	n	%	n	%	n	%	n	%	n	%
Never	1901	17,7	3204	29,8	6857	63,8	6156	57,3	4515	42,0
Rarely	2574	23,9	2884	26,8	1976	18,4	2087	19,4	2449	22,8
Occasionally	3571	33,2	2872	26,7	1342	12,5	1685	15,7	2224	20,7
Frequently	1862	17,3	1276	11,9	355	3,3	502	4,7	928	8,6
Very frequently	841	7,8	513	4,8	219	2,0	319	3,0	633	5,0

Table 3: Interactions in social networks by the Ecuadorian Land Force members.

- ❖ 13% of respondents strongly agree that the information published is of interest to them, 40% agree, 33% neither agree nor disagree, 5% disagree while 9% strongly disagree.
- ❖ Analyzing the preferred time for reviewing social networks that contribute to military activity, in the sample examined, it is observed that 14,4% do it in the morning.
- ❖ Members of the Land Force consider the use of social networks is beneficial in different activities.

4. RESULTS

4.3. Economic Impact of Social Networks

Military hierarchy	UMR (min.)	Monthly spent time (avg. min.)	Monthly economic impact (USD)	Annually economic impact (USD)	Annually economic impact (%)
General of Division	\$ 0,55	460,00	\$ 254,60	\$ 3.055,17	0,01%
Brigadier General	\$ 0,45	610,00	\$ 6.577,33	\$ 78.927,90	0,36%
Colonel	\$ 0,43	516,00	\$ 50.405,02	\$ 604.860,27	2,79%
Lieutenant Colonel	\$ 0,35	524,94	\$ 81.806,65	\$ 981.679,80	4,52%
Major	\$ 0,29	497,58	\$ 108.676,80	\$ 1.304.121,64	6,01%
Captain	\$ 0,26	528,68	\$ 116.066,08	\$ 1.392.792,92	6,42%
Lieutenant	\$ 0,19	551,54	\$ 84.146,60	\$ 1.009.759,16	4,65%
Second Lieutenant	\$ 0,16	589,82	\$ 48.605,10	\$ 583.261,20	2,69%
Warrant Officer Major	\$ 0,28	600,00	\$ 2.147,84	\$ 25.774,13	0,12%
Warrant Officer	\$ 0,25	521,94	\$ 10.588,13	\$ 127.057,59	0,59%
Second Non-com. Officer	\$ 0,18	477,20	\$ 51.255,74	\$ 615.068,90	2,83%
First Sergeant	\$ 0,16	458,52	\$ 175.143,27	\$ 2.101.719,27	9,68%
Staff Sergeant	\$ 0,14	459,92	\$ 356.081,46	\$ 4.272.977,51	19,68%
Lance Corporal	\$ 0,12	466,40	\$ 276.389,14	\$ 3.316.669,68	15,28%
Second Lance Corporal	\$ 0,11	499,70	\$ 278.913,22	\$ 3.346.958,62	15,42%
Soldier	\$ 0,10	553,12	\$ 161.908,38	\$ 1.942.900,55	8,95%

Table 4: Economic impact of the use of social networks in the Ecuadorian Land Force.

This analysis considers the average minutes of interaction in social networks, the Unified Monthly Remuneration (UMR), and the number of active members in the Army.

We can see that the monthly economic impact is \$ 1.808.965,36 and \$ 21.707.584,29 annually in total for all the members of the Ecuadorian Land Force.



5. DISCUSSION

- ❑ This study analyzed the use of social networks in the operational and strategic management of the Ecuadorian Land Force. The surveys' results show that there is a statistically significant association between age and variables such as the probability of having a profile on social networks, frequency of use, and interest in the information published in the Army's official accounts. For these associations, an inverted U pattern is observed, reaching the maximum point in the age range between 31 and 40 years old.
- ❑ The level of use of social networks for professional purposes is low (between 2,95% and 10,95%).
- ❑ For members of a Land Force, a set of good practices, awareness, image, and consistent discipline with the institution they represent must be followed. The most used social network is Facebook.
- ❑ The interaction in social networks of Land Force members is on average 6,95%. This value, compared to the 5% of economic impact, is directly proportional. It is determined that the use of financial resources is low, and therefore positive for the Army.



6. CONCLUSIONS

- This article performs an exploratory study on the use of social networks in the Ecuadorian Land Force. Under a set of good practices in information security and levels of discipline, it is possible to establish a positive presence in social networks that affects the levels of trust of the military force and society.
- The results show low levels of interaction of the members of the Ecuadorian Land Force with the publications issued by the official accounts, even when the published content is relevant to society.
- Economic impact of the expense associated with the remuneration of staff for the use of social networks is positive, which entails important challenges and opportunities to establish a presence in social networks



THANKS

