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BALANCED SCORECARD IN THE PUBLIC SECTOR: CASE STUDY OF THE ARGENTINE NATIONAL GENDARMERIE

Óscar Alcides Zampedri

University Institute of Gendarmeria Nacional Argentina (Argentina)

oscarzampedri@gmail.com - <https://orcid.org/0000-0002-8980-5256>

Marco Antonio Rojo Gutierrez

Universidad Autónoma Metropolitana (Mexico)

marco.rojo@unini.edu.mx - <https://orcid.org/0000-0003-4862-8780>

management of resources in the Argentine National Gendarmerie (GNA), as a tool capable of converting the vision and strategies to the organization, communicating and relate objectives and indicators to achieve administrative efficiency. To achieve this, a mixed methodology (qualitative, quantitative, and descriptive) was used, based on the theoretical references linked to the CMI, the analysis of the administration of the Force, the budget, the organizational climate, and the concept of citizens about the GNA. The samples were collected in three phases: in the first, the documentary analysis linked to the management and the available bibliography was carried out; in the second, interviews with senior officers, about knowledge about the instrument; staff survey to inquire about the organizational climate and lastly, an opinion survey of citizens benefiting from the GNA service; the third phase was designed from the BSC prototype applied to the Institution. The validation of the instruments was carried out through the Cronbach's Alpha Coefficient. It is appreciated that the application of this tool is feasible and that it can provide information in a timely manner to monitor activities, prioritize projects, measure the trajectory of the use of resources, align work, facilitate internal communications, and make appropriate decisions in search for efficiency in the use of resources.

Keywords: Argentine National Gendarmerie, Public Management, Balanced Scorecard, Budget, Efficiency.

CUADRO DE MANDO INTEGRAL EN EL SECTOR PÚBLICO: CASO DE ESTUDIO LA GENDARMERÍA NACIONAL ARGENTINA

Resumen. La presente investigación está orientada a verificar la viabilidad de aplicar el Cuadro de Mando Integral (CMI) a la gestión de los recursos en la Gendarmería Nacional Argentina (GNA), como herramienta capaz de convertir la visión y las estrategias a la organización, comunicar y relacionar objetivos e indicadores con el propósito de alcanzar la eficiencia administrativa. Para lograrlo se recurrió a la metodología mixta (cualitativa, cuantitativa y descriptiva), en función a las referencias teóricas vinculadas al CMI, el análisis de la administración de la Fuerza, el presupuesto, el clima organizacional y el concepto de los ciudadanos sobre la GNA. Las muestras fueron colectadas en tres fases: en la primera se realizó el análisis documental vinculado a la gestión y la bibliografía disponible; en la segunda, entrevistas a los oficiales superiores, sobre el conocimiento sobre el instrumento; encuesta al personal para indagar sobre el clima organizacional y, por último, una encuesta de opinión a los ciudadanos beneficiarios del servicio de la GNA; la tercera fase se diseñó del prototipo de CMI aplicado a la Institución. La validación de los instrumentos se realizó a través del Coeficiente de Alfa de Cronbach. Se aprecia que es viable la aplicación de esta herramienta y que puede aportar información en tiempo y oportunidad para

monitorear las actividades, priorizar los proyectos, medir la trayectoria del uso de los recursos, alinear el trabajo, facilitar las comunicaciones internas y tomar adecuadas decisiones en búsqueda de la eficiencia en la utilización de los recursos.

Palabras clave: Gendarmería Nacional Argentina, Gestión pública, CMI integral, Presupuesto, Eficiencia.

Introduction

The physicist and mathematician Thomson Kelvin (1824 - 1907) coined the phrase: "What is not defined cannot be measured. What is not measured cannot be improved. What does not improve, always degrades". Precisely, this principle is one of the distinctive characteristics of public administration in the 21st century and it is even the constant demand to those responsible for managing the resources of the State: that they have the appropriate skills and aptitude to face the problems, fight corruption, insecurity, violence and drug trafficking. Undoubtedly, achieving these objectives requires economic and financial efforts, proper coordination of utilization and demonstration of results. Drucker considered that the business leader had to be efficient and that efficiency was not something innate, but a capacity that can be learned by internalizing a series of habits.

On the other hand, Law No. 24156 "On Financial Administration and Control Systems of the National Public Sector", is the general rule that regulates the management of public resources and, as the GNA is part of the governmental structure, it is also important for it to manage adequately, supported by the principles defined in Article 4 of the aforementioned rule. This implies accepting and adapting to the new planning model, undertaking innovative actions in management, adjusting to the legal framework and taking advantage of the tools available to provide the necessary information, which goes beyond statistical data, legality and efficiency, but also the: "efficiency", "economy", "enforceability" and "effectiveness", included in the same law.

Maintaining an adequate system of monitoring and control of the aforementioned principles was the motive behind the research topic, with the purpose of confirming the feasibility of applying the BSC in resource management, as a tool that collaborates in the decisive processes and allows: translating the vision and strategy to the entire organization; communicating and relating objectives and indicators; planning and defining strategic objectives and initiatives and increasing feedback from the environment and strategic formulation.

To resolve this issue related to obtaining timely information from the administration, the perspectives of the model determined for private activity by Kaplan and Norton (1992), the management indicators of the GNA's actions in the fulfillment of the assigned missions and functions, were chosen as the basis for the BSC study.

In researching the state of the art, studies related to the application of the BSC in public agencies were selected and are detailed in Table 1.

It includes the presentation of the paper and the analysis of the literature on the subject, with special emphasis on previous research that justifies the study and that will be contrasted in the discussion of the results.

Table 1
Public organizations using the WCC

Study	Application	Perspective	Expected result
Bombini and Diblasi (2009)	Court of Auditors of the Province of Mendoza (Argentina)	Financials, customers, internal processes, learning and growth	<ul style="list-style-type: none"> • Improve communication, information and training. • Measurement of processes and capacity of work teams.
Toapanta Vera (2010)	Public Sector Financial Administrative Service (Ecuador)	Basic function of the Management. Financials, customers, internal processes, learning and growth	<ul style="list-style-type: none"> • To constitute a tool for the evaluation of results, quality level and improvement of public operations. • Develop a system of management indicators.
Mohamed Hatim (2014)	ANAED Case - Non-profit enterprises (Spain)	Financials, customers, internal processes, learning and growth.	<ul style="list-style-type: none"> • Plan, set objectives and align strategic initiatives. • Organizational learning tool.
Colombian National Police (2016)	Public Sector - Directorate of Financial Administration (Guayaquil - Colombia)	Financials, customers, internal processes, learning and growth.	<ul style="list-style-type: none"> • Competency indicators. • Improve the management of the Administrative and Financial Management. • Review of internal processes. • Achieving HR competencies. • Hierarchize the budget process. • Improve customer relations.
Vogel (2017)	Iberoamerican Dashboard (Argentina)	Financials, customers, internal processes, learning and growth.	<ul style="list-style-type: none"> • Diagnose strategies. • Perform a SWOT analysis. • Develop management indicators. • Apply competency-based management.

Note. Prepared by the authors based on research on the CMI.

The studies explored show that the application of the BSC has a common objective: public management based on the perspectives originally defined by Kaplan and Norton for private activity, with the exception of the results expected in each organization: improving internal communication, process control or as a tool for planning objectives, strategies and evaluating results. All use indicators to monitor management.

Method

In order to diagnose the application of the BSC to the GNA, theoretical and empirical methods on the subject were used. As a theoretical method, the model proposed by Kaplan and Norton (2000) was analyzed. From the empirical point of view, we analyzed works related to the application of the tool in different organizational environments. Therefore, a descriptive, exploratory, correlational and explanatory methodology was chosen to address the aspects related to the model applied to the GNA, focusing on the following perspectives:

- Internal processes: oriented to the organization, mission, vision and key values to achieve the Force's objectives and expectations.

- Training and growth: aimed at reporting on two significant issues for the GNA, such as the training and qualification of officers and institutional growth through investments.
- Resources: to provide information related to the management of the budget and the most significant resources used in the fulfillment of the assigned mission and functions.
- From clients (citizens): used to obtain the opinion of citizen clients who receive personal and property protection services from the Institution.
- Social impact: applied to the results of the operational actions of the Force.

The reference framework for the study was the Force's Central Administrative Service (SAF 375), the physical location where the documentation, records and databases necessary to develop the present work were gathered, with the scope of the budget allocated for the fiscal year taken as an example.

According to the proposed perspectives, it was necessary to consider three different samples related to: the interview on the knowledge and application of the BSC in the GNA; the survey on the organizational climate and the management sample. For the definition of the non-probabilistic sample, the following formula was used:

$$n = \frac{Z \cdot p \cdot q \cdot N}{e^2 \cdot (N-1) + Z \cdot p \cdot q}$$

Where n is the sample size,
N population size,
z is the typical score associated with the 95% confidence level,
e is the standard error,
p and q complementary proportions between 0 and 1.

The study population and sample were selected according to the perspectives investigated and adapted to the GNA. The information was collected through the following instruments:

- Interview: 33 Senior and Chief Officers, linked to management.
- Organizational climate survey: the human resources plant registered by the Force (fiscal year 2018) of 38,904 men and women in uniform was taken into account, from which a sample of 376 uniformed personnel distributed in: 70 Chief Officers; 109 Junior Officers and 197 non-commissioned officers.
- Survey of citizens (clients): a population of 1,500 people was considered, from which a sample of 250 people was drawn.
- Management analysis: the management of the 8 budgetary programs assigned to the Force by Law No. 27341.

The sample was validated through the SPSS program, version 17.0, to calculate Cronbach's coefficient. Table 2 and 3, respectively.

Table 2*Reliability statistics in the GNA staff survey*

Alpha of Cronbach	Cronbach's alpha based on standardized items	N elements
.979	.979	70

Table 3*Reliability statistics in the citizen survey (customers)*

Alpha of Cronbach	Cronbach's alpha based on standardized items	N Elements
.969	.963	14

Results

The change of paradigm in public management and the creation of State value promoted the new definition of "public expenditure", which transcends "effectiveness" (meeting the planned objectives), but goes deeper into the results resulting from the use of public resources, that is, it requires verifying "efficiency" through the recreation of tools used in private management in the public sphere. This objective entails the effort to optimize internal processes and an adequate use of resources, which implies using them rationally to achieve the best results for the community receiving the public service.

Observing these new administrative conditions is of utmost interest for those who have the responsibility to lead and make decisions on the use of the respective budgetary programs, based on the missions and functions of the GNA, the imposed and self-imposed objectives, defining and communicating institutional strategies, aligning human, material, technological and financial resources adequately planned.

By virtue of the above, the contribution of the BSC and the use of control indicators (financial and non-financial) are conceived as collaborating in the gathering of sufficient information to follow up on the fulfillment of objectives and goals.

Analysis of the interview with GNA managers

Prior to the study of the components of the BSC prototype applied in the GNA, it was necessary to examine the knowledge of the officials responsible for managing the budgetary programs about this tool, as well as the contribution of information to make appropriate decisions. This understanding was obtained by interviewing the thirty-three Senior and Chief Officers who have links with the budget, whose responses are shown in Table 4.

Table 4*Knowledge and contribution of the BSC in management*

Questions	Senior Officers		Chief Officers	
	Yes	No	Yes	No
Knowledge about the CMI	13	0	18	2
Use of the BSC in management	12	1	17	3
Contribution of the BSC to management	10	3	11	9
Contribution of the BSC to productivity	11	2	9	11

The results of the interview show that the Senior Officers and Chiefs are aware of and are inclined to use the BSC as a tool for monitoring management. At the same time, they also state that nowadays it is not enough to have only statistical data, but it is necessary to integrate and analyze them in order to provide information related to the main variables used in decision making.

In accordance with the current administrative dynamics and the need for accurate and timely information, it is necessary to use practices that favor the best strategic alternatives, detect deviations between planning and execution in real time and contribute to the optimal use of available resources (efficiency).

Perspective of internal processes

Before considering the feasibility of applying the BSC at GNA, it was necessary to analyze the variables related to the internal BSC process. These include: the organizational climate in the Force, the functioning of the Financial Administration System and the Purchasing System, which provide significant information for management.

Organizational climate

Dessler (1993) defines organizational climate as the set of perceptions that the individual has of the organization for which he/she works, and the opinion he/she has formed of it in terms of autonomy, structure, rewards, consideration, cordiality and support. For this reason, men who are satisfied and happy with their work are inclined to give their all for the work and motivate the effort of the whole to fulfill the mission and functions assigned.

The evaluation of this perspective focuses on two issues related to the management of operational and administrative activities. The first is linked to the organizational climate. Secondly, the organization (division of labor) arising from the mission and functions assigned according to the law, the "imposed objectives" and those assigned by the holder of the organic element "self-imposed objectives".

To achieve this, an opinion survey on the organizational climate was used, stipulated in 70 questions, grouped in 14 dimensions. The survey was answered by 376 uniformed personnel, which represents 94% of those invited to participate. Table 5 and 6.

Table 5
Variables related to organizational climate

Dimensions		Dimensions	
D1	Collaboration and communication between work teams in the GNA.	D8	Job satisfaction
D2	Autonomy in decision making.	D9	Working conditions
D3	Motivation	D10	Initiative and leadership
D4	Labor productivity	D11	Labor efficiency
D5	Remuneration and internal services of the GNA	D12	Labor competence
D6	Professional performance	D13	Training and professional development
D7	Teamwork	D14	Quality of service provided by the GNA

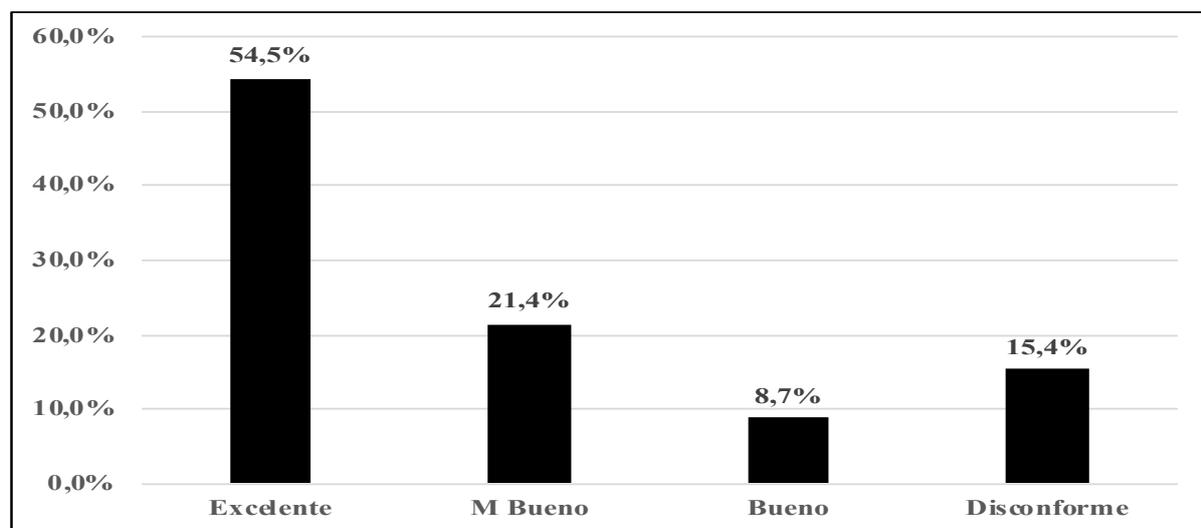
Table 6
Organizational climate assessment results

Qualifications	Variables related to work environment							Variables related to job performance						
	Dim 1	Dim 2	Dim 3	Dim 4	Dim 5	Dim 6	Dim 7	Dim 8	Dim 9	Dim 10	Dim 11	Dim 12	Dim 13	Dim 14
Excellent	175	185	201	158	263	196	196	152	185	182	222	173	263	288
M. good	108	98	95	102	65	61	65	97	93	89	77	92	65	40
Good	57	39	23	42	8	35	42	53	49	49	23	29	8	11
Dissatisfied	36	54	57	74	40	84	73	74	59	56	54	82	40	37
Totals	376	376	376	376	376	376	376	376	376	376	376	376	376	376

Note. Compilation based on the data obtained in the survey of the Force's personnel.

Table 6, shows the results of the survey related to the organizational climate adjusted in fourteen dimensions. The general opinion of the personnel was expressed in 318 positive responses (205 excellent; 81 very good; 33 good), while 58 of them disagreed with the work environment prevailing in the Force. The dimension related to "Collaboration and communication between the work or office teams", which reached a total of 344 positive points (175 Excellent; 108 M. Good; 57 Good and 36 Dissatisfied), while the dimension with the lowest evaluation corresponds to "Job satisfaction", with 292 positive points (196 Excellent; 61 M. Good; 35 Good and 84 Dissatisfied). The rest of the dimensions investigated are located within the two aforementioned values, maintaining similar ratings,

Figure 1
Organizational climate



These results represent 84.6% of the total surveyed who approve of the prevailing work environment in the institution, while 15.5% do not feel the same. This consideration leads to the inference that the human resources management policy in the GNA is adequate to the institutional reality of each decentralized element throughout the territory. Therefore, it is an important motivating factor for integration and teamwork, as well as for commitment to the objectives of the GNA ("feeling the shirt"). This situation makes it easier to manage and achieve greater success.

The 15.5% who responded in disagreement represent personnel who do not agree or do not feel comfortable in the Force, affected by any of the following factors: lack of leadership on the part of team or office managers; poor communication; they feel that the work is not

adequately compensated, lack of concern for their well-being at work or lack of motivation. By the way, the percentage of personnel who think differently is very low, therefore, they do not have enough strength to modify the work environment and generate discomfort, conflicts, low performance, loss of energy, etc.).

On the other hand, when applying the correlation analysis between the variables considered, an average coefficient of .667 points, which shows that between the fourteen dimensions there is a considerable positive correlation. Table 7 shows the correlations between each pair of variables considered.

Table 7
Pearson correlation study

Dimension	Correlation	Type
Collaboration and communication	.523	Significant positive correlation
Decision-making autonomy	.676	Significant positive correlation
Work motivation	.704	Significant positive correlation
Labor productivity	.645	Significant positive correlation
Remuneration and internal services	.723	Significant positive correlation
Professional performance	.704	Significant positive correlation
Teamwork/office	.662	Significant positive correlation
Job satisfaction	.634	Significant positive correlation
Working conditions	.709	Significant positive correlation
Initiative and leadership	.697	Significant positive correlation
Institutional efficiency	.699	Significant positive correlation
Professional competence	.632	Significant positive correlation
Training and development	.665	Significant positive correlation
Quality of customer service	.663	Significant positive correlation
Average correlation	.667	Significant positive correlation

Note. Own elaboration and information resulting from the use of the SPSS program.

The results are based on the results of the correlation study, whose figures show that the good climate prevailing within the Institution is a consequence of the leadership in the work teams -whether operational or administrative-, derived from the changes in paradigms, the updating of training programs, work incentives, the possibility of professional development, the technology and adequate means for the performance of activities and the support of the Force to the personnel through internal services (health, counseling, family).

Financial management system

Las Heras (2018), states that the financial activity of the State contemplates different and complex systems in which various components subsist: Legal (management is regulated by rules and principles of public law); Political (financial operations presuppose the a priori choice of ends and means for their realization); Economic (the means used in each financial operation are of an economic nature); Social (management has as its final destination the satisfaction of public needs); and Administrative (related to the techniques used for each operation that generate information that constitutes the fuel for the decision-making process).

Bolívar (2012), notes two important particularities related to Governmental Financial Administration in the GNA: the first is related to the principles, rules, agencies, resources and procedures involved in the operations of programming, management and control of the resources applied to achieve the objectives and goals in the most efficient way possible, whose transactions are recorded in the computer systems and SIDIF (Financial Information System), SLU (Single Settlement System). The second arises from the operation and interrelation of the

Financial Management Systems that provide the necessary information to the BSC for decision making.

Purchasing systems

The public procurement system collaborates in the management of public expenditure, by providing uniform procedures for the Public Administration, with the purpose of acquiring goods, works and services necessary to materialize the assigned mission and functions. This is the reason why it was included in the analysis as one of the significant components to be evaluated and included in the BSC applied, with a view to achieving efficiency in the administration of financial resources and transparency in the investment of the treasury.

Table 8
Classification of contractual acts

Type of contract	Amounts	Number of contracts
Public bidding	\$ 45.242.325,00	2
Public bidding	\$ 798.786.811,90	156
Private bidding	\$ 215.156.297,28	90
Direct contracting	\$ 786.771.612,46	338
Revolving fund	\$ 381.686.953,36	-
Total	\$ 2.227.644.000,00	586

Note. Prepared by the Company based on the distribution of hires made during the 2018 financial year.

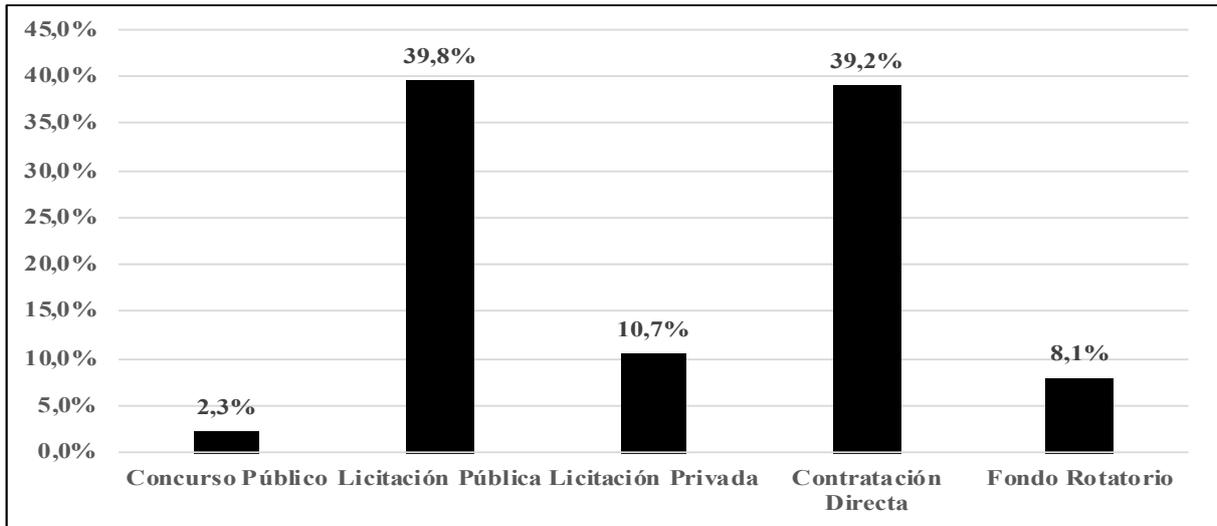
It is inferred that the GNA uses the two available procurement procedures: the normal and customary contracting system regulated by Decree No. 1023/2001 and 1030/2016, in the modalities of: Public Bidding, Public Bidding, Private Bidding, Private Bidding and Direct Contracting. The other purchasing format is through the "Revolving Fund". This procedure is provided for by Law No. 24156, Art. 80 and is used to make "minor or petty cash purchases", whose maximum amount per payment must not exceed the sum of \$ 30,000, with the exception of the payment of the following utilities: electricity, telephone, internet, water supply, gas supply and taxes, which are not limited to that amount.

Table 8 shows the distribution of the purchasing procedures used to invest the budget allocated in Items 2, 3 and 4. During the fiscal year, the five procedures established by the aforementioned regulations were used, which shows that the spirit of the regulations was complied with: greater supplier participation and transparency.

It should be noted that the choice between one procedure and the other is based on two requirements established in the aforementioned regulations: the amount of the contract and the object to be contracted.

Figure 2

Distribution of GNA purchases



The results represent the distribution of the contractual acts carried out by the GNA during fiscal year 2018, according to the purchasing methods used. The figures show that 82.9% of the acquisitions of goods and services were made through the contractual system in its four modalities (public bidding 2.3%; public bidding 39.8%; private bidding 10.7% and direct contracting 39.2%) and 17.1% through the Revolving Fund system. Consequently, it is clear that the GNA follows the procedures established for state purchases, in order to: "buy well" (principle of effectiveness); at the "best price" (principle of economy); in the quantity needed to "fulfill the mission and functions" (principle of effectiveness); at the required "time and opportunity" (principles of executiveness); "optimizing financial resources" (principle of efficiency).

Perspective on education, training and growth

Since 1938, the Force has performed functions on the northern border, maintaining the identity in border areas, preserving the national territory and performing other functions related to citizen security. The provision of this service requires the availability of appropriately trained and qualified personnel.

Due to its importance, it was included within the perspective of training and growth, with this purpose, the training and qualification processes carried out by the Force were evaluated.

Staff education and training

Education and training is one of the fundamental pillars for the GNA, in which professionals with a democratic sense are forged, in accordance with the new demands of security intervention. The process is designed and included in the National Gendarmerie Educational System (SEGEN) and is developed in the different training institutes of the Force throughout the national territory.

Table 9

Evolution of GNA training and education

Programs	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Totals
Training of staff	4.600	5.200	4.500	5.000	5.500	5.000	5.000	3.000	3.000	3.000	43.800
Accelerated training of Gendarmes	1.500	530	1.400	2.000	0	2.000	6.400	3.000	2.000	950	19.780
Officer Training	160	185	220	250	250	250	250	255	265	265	2.350
Non-Commissioned Officer Training	600	860	930	160	1.400	1.000	1.850	1.900	1.950	1100	11.750
Specific training for non-commissioned officers	0	0	0	0	0	0	0	850	900	950	2.700
Totals	6.860	6.785	7.050	7.410	7.150	8.250	13.500	9.005	8.115	6.265	80.380

Note. Own elaboration based on the evaluation of the curricula and the results achieved in the last ten years.

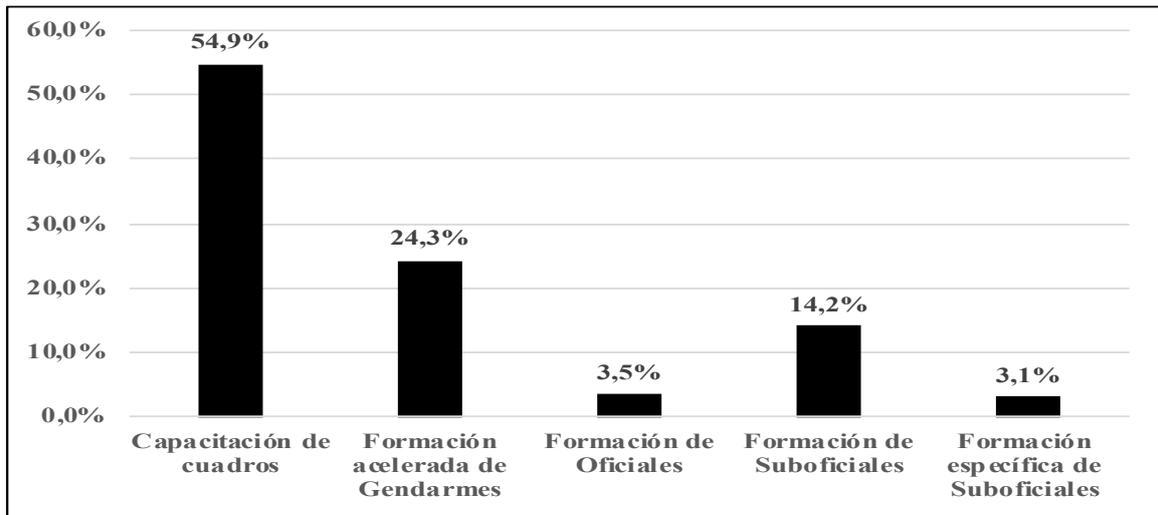
During this period, 80,380 gendarmes belonging to the ranks of officers, non-commissioned officers and gendarmes were trained in the different Training Institutes of the Force. The overall annual average is 8,038 staff members who passed through one of the training institutes in order to receive professional training. The effort was focused on three axes:

- Training of cadres: 4.380 professionals per year.
- Accelerated training of Gendarmes: 1.978 gendarmes per year.
- Non-commissioned officer training: 1.175 sub-officers per year.

It is noted that the Force provides the appropriate resources and means to provide personnel with the theoretical and practical knowledge in accordance with the needs arising from the fulfillment of the assigned function. Therefore, it is an effective tool to reduce risk, danger of damage, errors, to comply with the law, to improve the efficiency in the performance of the employees, to favor the feeling of satisfaction with one's work, to contribute to professional growth, to promote personal progress, learning and the perception of achievement of personal goals.

Figure 3

Average evolution of education and training at the GNA



The results are a reflection of the Force's educational policy in accordance with operational and administrative needs, which allows it to meet the requirements and goals of the State "the common good", together with the institutional goal: to provide efficient and professional service to the community. The new vision of citizen security, the emergency of insecurity and the assignment of new functions promoted the incorporation and training of personnel, based on the pedagogical model that brings into play the curricular proposals with strategic contents in accordance with the new educational paradigm based on competencies. Due to the importance of this process, its inclusion in the WCC was considered.

Growth of the workforce

The growth of conflict and the need to provide favorable responses to this issue led the political authorities to increase the number of personnel in the Security Forces, under the Ministry of Security. Table 10 shows the growth in personnel from 2001 to 2018 of the four Forces that make up the aforementioned ministry. Particularly noteworthy is the increase in the GNA staff, which went from 18,282 to 38,904 in 2018, representing a growth of 112%.

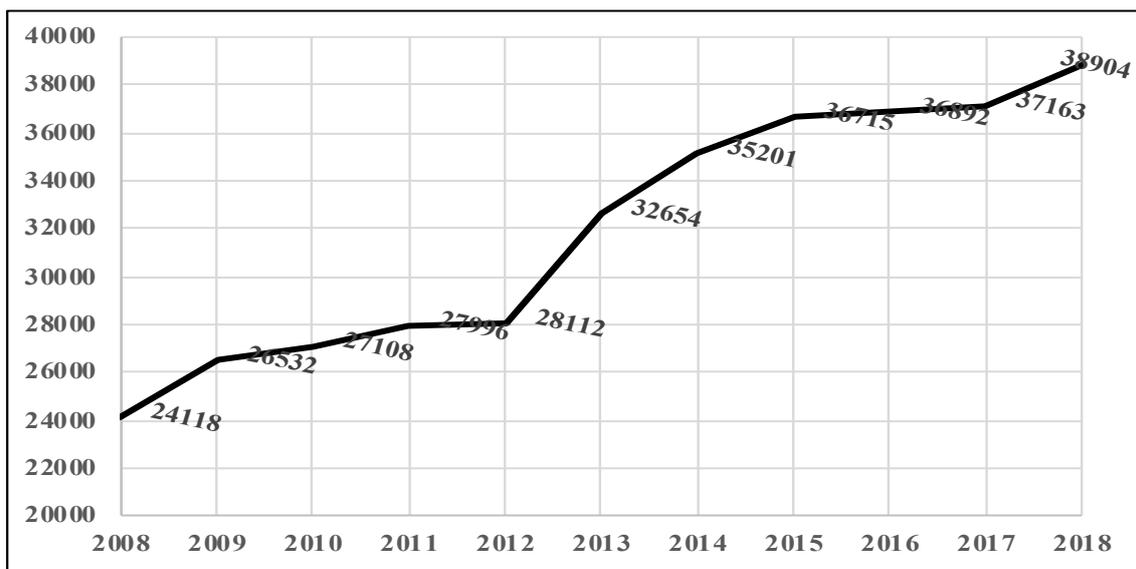
Table 10
Security Force Growth

Institutions	2001	2018	Increase % Increase
Argentine National Gendarmerie (GNA)	18.282	38.904	112 %
Argentine Federal Police (PFA)	31.706	32.664	3 %
Argentine Naval Prefecture (PNA)	14.910	24.191	62 %
Airport Security Police (PSA)	3.170	5.806	83 %
Total	68.068	101.565	49,2 %

Note. Own elaboration based on the 2001 and 2018 Budget.

Figure 4

Evolution of the GNA's staffing structure



Note. Prepared by the Company based on the records of the General Directorate of Human Resources.

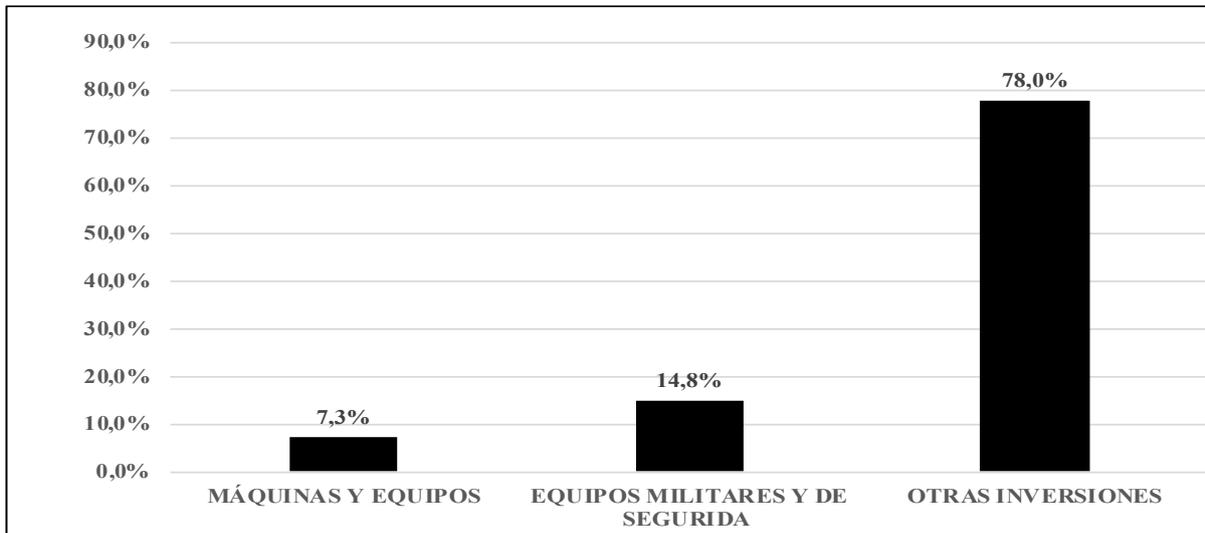
The growth in the number of GNA personnel is the result of the change in the paradigm of border security, the advance of crime and drug trafficking in urban centers, which motivated the political authorities to use the GNA to try to reverse and minimize the actions of legal violations of personnel. This situation required the allocation of resources (human, material and financial) to cover operational activities in different provinces and to comply with the national agreement "Argentina without drug trafficking".

Investments

Maintaining public order and ensuring compliance with the nation's laws involved providing the Force with the necessary equipment to perform its various functions (operational and administrative) as efficiently as possible. From the point of view of the budgetary allocation of the investments, they should be classified as Item 4 "Property, plant and equipment". In Figure 5. The figures corresponding to the distribution of investments during the period 2008 - 2018 are shown.

Figure 5

Distribution of investments



The detail of the investments of the budgetary programs assigned to the Force during the period mentioned above shows that the main investment effort was oriented to the item "other investments", which accounted for 78.0% of the total and was allocated to the acquisition of intangible assets (specific software), construction (new and refurbished) and livestock. 14.8% was allocated to "security equipment" and 7.3% to "equipment and machinery" (transportation, laboratory, communications, computer, furniture and office equipment, and others).

Resource perspective

The means and an adequate logistics are essential to achieve the obligations arising from the mission and functions. Due to the jurisdiction assigned to the Force and the diversity of its operational functions, it requires specific equipment to facilitate the execution of its activities.

The optimization in the use of these resources necessary to carry out GNA operations depends on the proper coordination of the logistics chain so that they are provided in time and opportunity, in order to achieve the expected results that have an impact on citizen (customer) satisfaction and produce a competitive advantage in the quality of service.

Table 11 lists *the* main material resources used in operational activities.

Table 11

Material resources used in operational activities

Type of resource	Quantity
Deconcentrated units and checkpoints throughout the country	2.300
General transportation vehicles (operational and support) distributed throughout the country	5.627
Telecommunications and information technology posts (throughout the territory)	549
Equids (equines and mules) distributed throughout the national territory	765
Motorcycles and ATVs (operational and support) distributed throughout the territory	1.255
Security, rescue and antinarcotics canines	316
Aircraft	25
Rescue vehicles (Hänggluds caterpillar)	2
X-ray scanners	87

Note. Prepared by the Company based on information obtained from the General Logistics Department of GNA.

Financial resource management

The budget is considered to be the management tool that summarizes the decisions related to the level and composition of the goods to be produced. In this budget planning, the objectives, goals and expected results are detailed, as a consequence of the application of the resources allocated to each of the programs outlined in Table 12.

- Program 1: Central Administration
- Program 41: GNA Education and Training
- Program 41: GNA Health Care
- Program 43: Passive Care
- Program 44: Humanitarian and Peace Missions
- Program 48: Border Security.
- Program 49: Complementary Homeland Security Operations
- Program 50: Complex Crime Investigation Service.

Table 12

Budget distribution (in thousands of pesos)

Program No.	Original assignment	Modifications	Current credit	Committed	Accrued	% Accrued
1	3.388.354	276.457	3.664.811	3.651.483	3.651.389	99,6
41	3.691.913	365.044	4.056.957	4.004.982	4.004.971	98,7
42	1.432.134	66.4848	1.498.618	1.433.066	1.433.066	95,6
43	6.256.761	1.651.682	7.908.443	7.877.822	7.877.822	99,6
44	360.830	34.242	395.072	176.929	176.929	44,8
48	10.045.032	1.426.683	11.474.745	11.293.638	11.292.255	98,4
49	9.591.423	342.400	9.933.824	9.853.559	9.853.535	99,5
50	1.953.438	71.597	2.025.036	1.887.563	1.886.510	93,2
Totals	36.719.885	4.234.589	40.954.476	40.179.042	40.176.477	91,15

Note. Prepared by the authors based on the budget allocated to the GNA.

Table 12 summarizes the programs and original budget appropriations plus the supplementary appropriations received during the year. An excellent level of utilization of the financial resources distributed to each program was observed, with an overall average of 91.15% of the total allocated to the Force being invested. To achieve this accrual (accrual: generated once the suppliers have complied with the contract and the GNA has received the goods or services in accordance with the contract), effective procurement planning was required.

The exception was Program 44, "Humanitarian and Peace Missions", which only reached 44.8% of the total planned, due to the decrease in the demand for security from international organizations (UN and security at Embassies).

Budget growth

The decisions of the Executive Power to assign new functions to the Security Forces required an increase in the budget in order to cover the expenses resulting from the increase in the number of personnel deployed to the new responsibilities and the acquisition of equipment. Table 13 shows the total budget evolution over the last ten years.

Table 13
Growth of the GNA budget (in thousands of pesos)

Base Budget (2001)	Updated budget (2018)	Allocated budget (2018)	Nominal Update	Increase %
\$ 539.301	\$ 20.695.505	\$ 36.908.645	\$ 16.209.898	43,9%

Note. Prepared by the authors based on the budgets allocated to the GNA.

In order to analyze the actual credit growth, the 2001 budget was updated with respect to the Consumer Price Index (CPI) issued by the World Bank:

- Consumer Price Index (CPI) 2001 3.95
- Consumer Price Index (CPI) 2018 151.58

$$\text{Value}_{2018} = \text{Value}_{2001} \times \frac{\text{IPC}_{2018}}{\text{IPC}_{2001}} = \$ 539.301 \times \frac{151,58}{3.95} \cong \$ 20.695.505,21 \text{ (Updated budget)}$$

- Nominal growth: \$ 539.301 - \$ 36.908.645 = \$ 36.369.344 (+67,43%)
- Real growth: \$ 36.908.645 - \$ 20.698.747 = \$ 16.209.898 (+ 43,92%)
- Reduction of purchasing power: (- 23,51%)

As a result of the real reduction in the budget, the Force was forced to optimize the use of resources to meet its responsibilities. It involved the redistribution of budget allocations in order to meet imposed and self-imposed objectives.

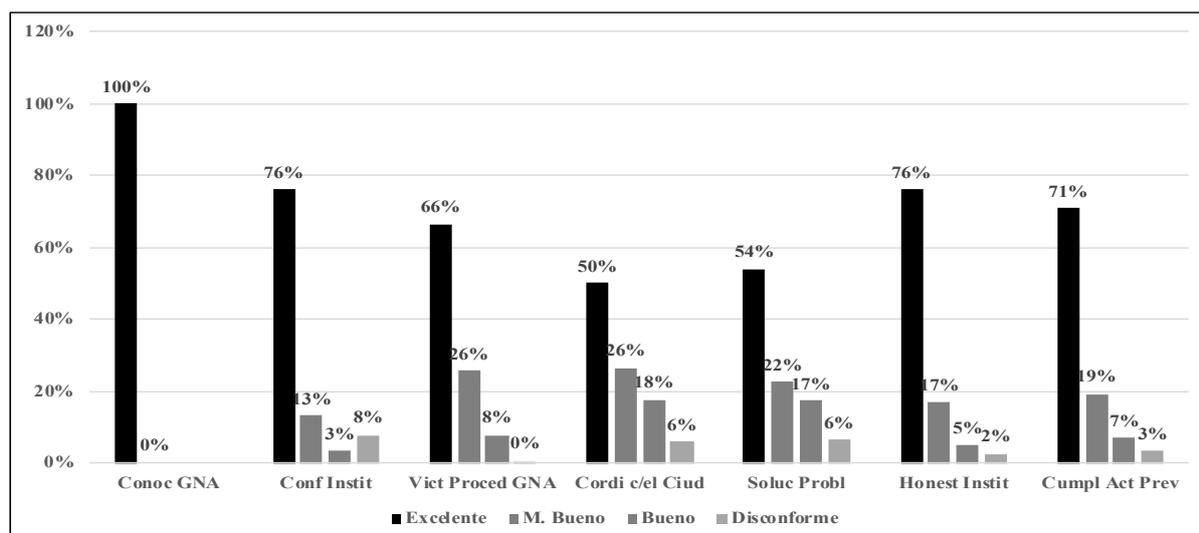
Customer (citizen) perspective

Since November 2003, the GNA has been engaged in providing citizen security services in the "conurbano bonaerense" (Buenos Aires suburbs). The evaluation of the national government's actions was entirely positive, since it was possible to reduce the frequency of certain crimes.

The activity increased year after year, with more than 6,000 gendarmes being assigned to carry out security functions for people and property in the province of Buenos Aires and other provinces with similar problems.

In this sense, the GNA is committed to permanently improve the processes and procedures developed in the service to citizens, who entrust the Force with the security and protection of their property. Figure 6, shows the results.

Figure 6
Citizens' opinions about the GNA



The results of the consultation allow us to conclude on two important issues: all the citizens surveyed said they knew the GNA. This conclusion leads to think that the opinions of the rest of the dimensions can be associated to this knowledge about the Force. The other consideration has to do with the judgments regarding the actions of the Institution, represented by 97% of the favorable opinions on the performance of the specific function and those of civic action that have a positive impact on the perception of the citizens and the prestige of the Force.

The two aforementioned functions motivated the modification of the security prototype, transforming the simple control and repression of crime, to a more preventive action, supported by human rights, which not only protects the borders of the country, but also collaborates in the task of containing young people and supporting the citizen as a guarantee of the exercise of rights and the common good.

Table 14
Correlation analysis of the citizenship survey

Dimension	Correlation	Type
Knowledge of the GNA	.801	Very strong positive correlation
Confidence in the Institution	.662	Significant positive correlation
Respect for Human Rights	.774	Very strong positive correlation
Cordiality in customer service	.789	Very strong positive correlation
Problem Solution	.816	Very strong positive correlation
Institutional Honesty	.842	Very strong positive correlation
Compliance with the Preventive Activity	.842	Very strong positive correlation

Note. Prepared by the authors based on the correlation analysis of the citizen survey.

The coefficients determined reveal a very strong positive correlation between the variables observed, the result of which places the GNA as the security force with the highest prestige among its peers, in which "clients" recognize the honesty and effort in preventive activities in the face of violations of the rights of people and their property, which generates the climate of insecurity and impact on the quality of democracy.

Also contributing to the result is the expertise of the Force in assisting and satisfying the security needs of the compatriots and the empathy of the gendarme to provide a satisfactory response, framed in the seventh item of the gendarme's decalogue, which reads: "The gendarme's empathy to provide a satisfactory response, framed in the seventh item of the

gendarme's decalogue: "I am constant Sentinel to watch over National Sovereignty, protect democracy, the enforcement of its laws and defend the rights of all people."

Social and economic impact perspective

The correct procedure at the borders and the sensation produced in society by the new functions, achieved prominence in socially vulnerable areas and generated a mythical view of the Institution in two dimensions: the first referred to the border, not as a national boundary, but as an aspect of conservative cultural resistance, based on values that the gendarmes believe they are guarding and facing. The second is linked to the empathy of the gendarme in the fight against crime that has consequences for society: drug trafficking, arms trafficking, illegal merchandise entry, white slave trade, environment, money laundering, among others. Table 15 shows the results of the Force's operational activities with a high degree of social impact.

Table 15
Results of preventive activities

Activity	Results	Unit of measure	OBS
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Vehicle assistance and control			
Citizen assistance and control	42.969	Persons	
Arrested for crimes or alleged crimes	5.363	Persons	54% responds to drug trafficking
Retention of passenger and cargo vehicles	3.314	Vehicles	
Vehicle infraction reports	43.188	Minutes	
Preventive patrolling	996.063	Kilometers	
Immigration Control			
Migratory control activity	23	International passages	
Number of citizens entering/leaving the country	164.380	Citizens	
Control of border crossings	99	Steps	
Fight against crime			
Assets seized from drug traffickers	\$ 14.019.100.000	Weights	U\$S 537,130,268.00
Illegal merchandise seized from smuggled goods	\$ 3.774.452.988	Weights	U\$S 144,615,057.01
Recovered money used by criminal gangs	\$ 490.090.542	Weights	U\$S 18,777,415.40
Anti-drug procedures	9.917	Procedures	
Persons arrested for drug trafficking	5.363	Persons	
Cocaine seizure	6.881,19	Kilograms	27.524,728 doses
Marijuana seized	112.667	Kilograms	112.667,358 doses
Trafficking in persons procedure	1.091	Persons	
Weapons seized	2.193	Weapons	
Victims of the crime of trafficking	167	Persons	
Smuggling procedure	29.846	Procedures	
Vehicles seized	5.957	Units	
Cigarette smuggling	12.874.525	Packages	25.598.200
Cellular telephony	12.325	Cell phones	U\$S 9,860,000
Asset laundering	19.651	Procedures	U\$S 16,816,984

Note: Prepared by the Company based on information from the Directorate General of Operations.

Understanding the critical and positive factors on the actions of the GNA throughout the national territory is a permanent effort that is symbolized in the different operational actions developed by the Force and the results achieved with them which, beyond the custody of the borders and the security service to the people, managed to recover about U\$S 727,199,274, which represents, approximately, 50% of the total budget allocated to the GNA during the 2018 fiscal year. Demonstrates the use of strategies derived from security policies that seek to reduce the negative impact of crime in any of the areas in which it operates.

CMI Prototype

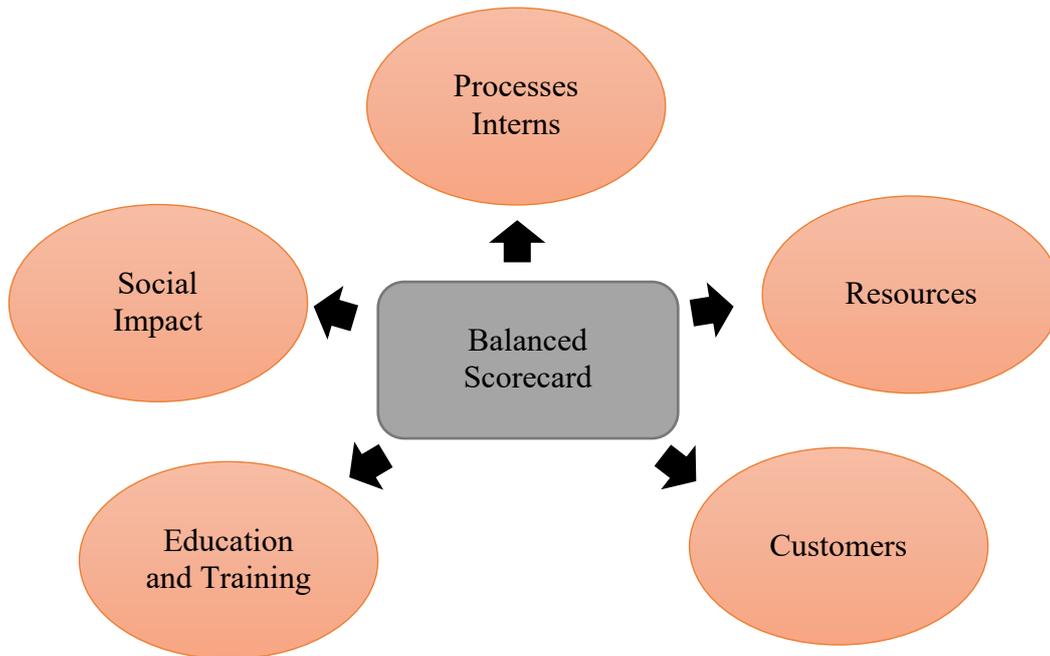
Once the diagnosis of GNA's management has been completed, the work environment has been evaluated and the opinion of clients (citizens) has been consulted, it is now time to design the BSC prototype applied to the Force.

To this end, we worked on five perspectives and indicators that group together the information needed to manage efficiently and make timely decisions in order to optimize the scarce resources available.

The BSC model applied to the GNA is configured by the following perspectives: Internal Processes (Work Climate, Financial Administration System, Purchasing System);

Resources (Material and Budgetary); Clients (Citizens); Education, Training and Development (Education and Training, Staffing, Investments); Social and Economic Impact (Results of the Operational Activity). In Figure No. 6, the CMI prototype applied to Fuerza is outlined.

Figure 7
Balanced Scorecard (BSC) Prototype



Conclusions and Discussions

Having concluded the analysis of institutional management, it is possible to adapt the BSC model proposed by Norton and Kaplan as an appropriate tool for gathering timely information to be used in decision making, since at present only statistical data that provide comprehensive information for the adoption of efficient measures are handled.

The diversity of functions performed by the Force reveals significant information related to the administration of the treasury, which can be adequately exploited with the incorporation of the BSC to management, applying key indicators for real-time verification of the results achieved. It would reduce slippage and help to make appropriate decisions in a timely manner, in the face of the enormous changes in administrative dynamics.

On the other hand, the application of the BSC to management and the use of control indicators (financial and non-financial) would make it easier to concentrate data referring to the fulfillment of objectives and goals, planned from a strategic vision, to notice the distance between planning and execution in order to make the appropriate adjustments, especially since senior and chief personnel linked to management are aware and believe that it is an effective tool for detecting deviations in real time.

It is inferred that applying the BSC to management would achieve:

- Monitor the procurement process of goods and services required to carry out its activities, based on the set of principles, rules and procedures involved in the procurement processes through the contracting system and the petty cash system (Revolving Fund), seeking to optimize the use of the resources allocated in the budget.
- Verify the education and training process that reflects the security policy and the professional development of the Force, based on the principles of "meeting the needs and purposes of the State: the common good". It responds to the pedagogical model that puts into play the curricular proposals that include strategic contents of the new educational paradigm based on competencies.
- To control in a timely manner the development of human resources and equipment for the new and complex responsibilities assigned to the Force (fight against urban crime, organized crime, drug trafficking, preventive activity, monitoring and suppression of crimes and participation and social commitment in preventive activity throughout the national territory).
- To make more efficient use of budgetary resources, especially in the face of inflation, which has a substantial impact on the purchasing power of goods and services necessary for the fulfillment of the assigned mission and functions.
- To follow the fulfillment of the specific function and those of civic action to maintain the factors that promote the perception and prestige of the Force among citizens, sustained by the Decalogue of the Gendarme", which reads: "I am constant Sentinel to watch over National Sovereignty, protect democracy, the enforcement of its laws and defend the rights of all people."

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