

THE IMPACT OF NON-FINANCIAL REWARDS ON BEHAVIORAL STRATEGIES IN THE CONTEXT OF THE PORTUGUESE AIR FORCE

O IMPACTO DAS RECOMPENSAS NÃO FINANCEIRAS NAS ESTRATÉGIAS COMPORTAMENTAIS, NO CONTEXTO DA FORÇA AÉREA PORTUGUESA

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Abstract

Due to recruitment difficulties resulting from budgetary restraints, as well as the continued withdrawal of military and civilians from their ranks, military institutions, including the Air Force, Portuguese military institutions are currently facing the challenge of creating human resource policies that enhance motivation and retention. This study sought to analyze the influence of Non-Financial Rewards (NFR) on exit, voice, and neglect, mediated by loyalty and silence so that the Portuguese Air Force can adjust its human resources policies to its strategic objectives. For this purpose, an electronic questionnaire was sent to 3,709 civilian and military workers, and 348 valid questionnaires were received. Statistical results demonstrated the existence of unidimensionality of NFR and suggested that NFR, as a practice of human resource management, influences behavioral strategies, namely loyalty, exit, voice, and neglect. Loyalty mediates the relationship between the NFR and the exit. The implications of these results were discussed.

Keywords: Behavioral Strategies; Portuguese Air Force; EVLN Model; Non-Financial Reward; Silence.

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Resumo

Devido a dificuldades de recrutamento resultantes de restrições orçamentais, bem como à contínua saída de militares e trabalhadores civis, as instituições militares, incluindo a Força Aérea Portuguesa, enfrentam o desafio de criar políticas de recursos humanos que aumentem a motivação e a retenção dos que se encontram na instituição. Este estudo procurou analisar a influência das recompensas não financeiras no silêncio, na saída, na voz e na negligência, mediada pela lealdade, por forma a fornecer um elemento de apoio à Força Aérea Portuguesa, no sentido de ajustar as suas políticas de recursos humanos aos seus objetivos estratégicos. Para o efeito, foi enviado um questionário eletrónico a 3.709 militares e trabalhadores civis, tendo sido recebidos 348 questionários válidos. Os resultados estatísticos demonstraram a existência de unidimensionalidade das recompensas não financeiras e sugeriram que as recompensas não financeiras, como prática de gestão de recursos humanos, influenciam as estratégias comportamentais, nomeadamente a lealdade, a saída, a voz e a negligência. Os resultados sugeriram, ainda, que a lealdade medeia a relação entre as recompensas não financeiras e a saída e entre as recompensas não financeiras e o silêncio de adesão. As implicações desses resultados foram discutidas.

Palavras-Chave: Estratégias Comportamentais; Força Aérea Portuguesa; Modelo EVLN; Recompensas Não Financeiras; Silêncio.

Currently, the military institutions are dealing with several challenges, namely, the lack of human resources, both civilians and military, due to low recruitment and a high turnover, as well as retirement. Therefore, it is important to identify the motivational determinants to increase personnel attraction and retention (Aker, 2016; Bellou & Gkousgkounis, 2015; Jaiswal, Dash & Mishra, 2016; Taylor, Clerkin, Ngaruiya & Velez, 2015; Woodruff, 2017).

1. Introduction

It has been verified in several studies (Deci, 1972; Deci et al., 1999; Deci & Ryan, 2008; Ryan, & Deci, 2020) that the rewards are related to the motivation of the employees. Although, reward systems are composed of financial and non-financial rewards (Chiang & Birtch, 2006; Deci & Ryan, 2008).

In Public Administration, where the Air Force is included, the reward systems are framed by several legal statutes which do not allow financial rewards management. For this reason, the present research focused on Non- Financial Rewards (NFR), according to the typology identified by Chiang and Birtch (2006) which is based on Self-Determination Theory established by Deci e Ryan (Deci, 1972; Deci et al., 1999; Ryan & Deci, 2020).

It was found that there are models that establish a relationship between the decline in employee satisfaction and the behavioral strategies they adopt. One of these models is the

EVLN model, which establishes the relationship between the behaviours of Exit (E-Exit), Voice (V-Voice), Loyalty (L-Loyalty) and Neglect (N-Neglect) adopted by workers as a reaction to the decline in their satisfaction with the organization (Farrell, 1983; Hirschman, 1970; Rusbult, Zembrodt & Gunn, 1982). In this sense, it was deemed necessary to deepen the analysis by studying the existence of this structural relationship in the military context.

However, the EVLN model is not consensual and there are other authors who propose extending the model to other behavioral strategies, namely Silence (Dyne, Ang & Botero, 2003; Morrison, 2014). (2015) identified two types of Silence in their study: Adherence Silence (AS) and Rejection Silence (RS).

Therefore, and given the specificities of the military context in which this study will be carried out, namely the existence of a highly hierarchical vertical structure and, particularly in the case of the military, the existence of duties to which they are obliged (namely the duty of obedience, the duty of loyalty and the duty of secrecy, provided for in the Military Discipline Regulations, approved by Organic Law no. 2/2009, of July. ° 2/2009, of July 22), the aim of this study is to determine the relationship between satisfaction with the non-financial rewards provided by the organization and the behavioural strategies adopted (leaving, speaking out and negligence), exploring the mediating effect of loyalty in this relationship. This objective aims to obtain results that will support the development of human resources policies that promote motivation and, consequently, the retention of military personnel and civilian workers in the Portuguese Air Force.

Finally, it is worth mentioning that the objective of this study is aligned with one of the strategic objectives of the Portuguese Air Force, established in Order No. 15/2017, of February 24, of the Chief of Staff of the Air Force - sustainable personnel management that encourages motivation and retention, and also with the international theoretical and military framework regarding retention.

2. Non-Financial Rewards

Among the human resources management practices referred to in the literature are the reward systems. These reward systems are comprised of financial and non-financial rewards (Chiang & Birtch, 2006), along the lines of various models of motivation (e.g., Herzberg, 1999 or Deci, 1972 or Maslow, 1954) and human resources management (e.g., Beer et al., 1984; Fombrun et al., 1984; Stewart III, 1993; Sousa et al., 2006).

However, it is noted that financial rewards, in a public context, are regulated by legal statutes: in the case of military personnel, by the remuneration regime provided for in Decree-Law n. 296/2009, 14th October, which approves the remuneration regime applicable to military personnel in permanent positions and under contract and volunteer regimes in the three branches of the Armed Forces; in the case of civilians, by the remuneration regime provided for in Decree-Law n.° 84-F/2022, 16th December, which approves measures to enhance the value of public sector workers, and by individual performance incentives provided for in Law n.° 66-B/2007, 28th December, which regulates the Integrated Management and Performance

Evaluation System in the Public Administration. Considering that these regulations limit the action regarding the use of financial rewards by institutional hierarchy in the Armed Forces and, particularly, in the Portuguese Air Force, this study will be delimited to the analysis of non-financial rewards.

Chiang and Birtch (2006) subdivide non-financial rewards according to their extrinsic or intrinsic nature (Table 1). These authors consider that extrinsic non-financial rewards are tangible and are related to the task, being provided and managed by the organization (e.g., Security and stability in employment, possibility of promotion). On the other hand, intrinsic non-financial rewards are intangible and result from the individual's assessment of their own task performance, according to their goals and expectations (e.g., challenging job, increased autonomy and responsibility).

Table 1 – Non-Financial Rewards (NFR)

Extrinsic	Intrinsic
A good relationship with co-workers	Challenging job
A good relationship with the immediate superior	Possibility of exercising their competences
Security and stability in employment	Variety of tasks
Possibility of promotion (perspective of career development)	Increased autonomy and responsibility
Good team spirit	Achievement
Existence of a training and professional development plan	Job satisfaction
Possibility of balance between personal and work life	
Availability of sufficient resources to carry out the work	
Recognition/feedback concerning your work (public praise, praises, medals)	
Workload compatible with time to do it	
Favorable working environment	

Source: Adapted from Chiang and Birtch (2006).

It should be noted that the NFR model defined by the authors is similar to the Hackman and Oldham model (1980, p.83). The authors present the characteristics of the work that predict a high internal motivation of the workers in the workplace, namely the variety of skills, the identification with the task, the meaning of the task, autonomy, and feedback.

In the scope of motivation, it is consensual to consider this concept as an end-oriented behavior (see classic authors, such as Maslow, 1954, Herzberg, 1966, Vroom, 1964 or Deci, 1972). Hence, it can theoretically be established that rewards and, in particular, NFRs will lead to specific behaviors depending on the individual's assessment, reinforced by the approach of Hirschman (1970).

3. EVLN Model

According to Hirschman (1970), individuals, in response to a decline in the quality of a product/service and subsequent dissatisfaction with it, tend to adopt certain behavioral strategies. Considering this premise, when faced with a situation of dissatisfaction, the author identifies two initial reactions: on one hand, individuals may exit, breaking the established relationship between themselves and the product/service, which Hirschman (1970) termed Exit; on the other hand, individuals may seek to address the situation through the use of their voice in a prosocial manner, which Hirschman (1970) termed Voice. Hirschman (1970) also identifies the possibility of the individual remaining loyal, simply waiting for the situation to improve, which he termed Loyalty. These strategies are collectively referred to as the EVL model.

In this model, the option to exit is considered a "painful decision to withdraw or change" (Hirschman, 1970, p. 81, cited in Farrel, 1983), which means that considerable effort is required from the individual and generally indicates that the individual believes the situation is unlikely to improve. Exiting can be understood as either the end of the relationship or as a mere intention to abandon it.

On the other hand, the option to exercise voice, defined as "any attempt to change rather than escape from a reprehensible state of affairs" (Hirschman, 1970, p. 30, cited in Farrel, 1983), generally involves appeals to higher authorities within or outside the hierarchy, but can also involve other actions and protests. According to Hirschman (1970), voice is a legitimate mechanism for recovery and tends to be more active when individuals are substantially involved (Farrel, 1983). Thus, voice can be understood as active and constructive participation by the individual aimed at improving aspects that cause dissatisfaction. For this, it is necessary for the individual to have the ability to influence the organization, and also for the organization to be receptive to being influenced and to change. Hirschman (1970) thus identifies a direct relationship between voice and exit, as "voice is the only way dissatisfied customers or employees can react whenever the exit option is not feasible" (Hirschman, 197, p. 33, cited in Farrel, 1983). The author considers this relationship to be inverse, meaning that voice tends to increase as exit opportunities decrease.

The EVL model also considers that there are some individuals who do not choose to exit or to exercise voice. Instead, "they suffer in silence, confident that things will improve shortly" (Hirschman, 1970, p. 38, cited in Farrel, 1983). Hirschman (1970) identifies this strategy as the option for loyalty, not being clear about its interpretation and referring to the need for special attention to this construct. He considers that the option for loyalty may constitute an independent course of action from exit and voice, thus being considered a third behavioral strategy characterized by the conviction that the organization deserves the individual's full effort and dedication, or it may be a transient form that gives way to other behaviors as the situation persists. Nevertheless, the author considers that an individual may remain loyal without influencing, but hardly without the expectation that someone will act or something will happen for things to improve (Farrel, 1983).

Following the study conducted by Hirschman (1970), Rusbult et al., (1982) and Farrel (1983) propose a fourth strategy they call Neglect. They consider that the decline in satisfaction can

also result in loose and disrespectful behavior. As Farrel (1983) mentions, Hirschman (1970) does not explicitly address this possibility, but presents two subsequent studies (Kolarska & Aldrich, 1980; Rusbult et al., 1982) in which the fourth response to dissatisfaction could be neglect. In this sense, Farrel (1983) indicates studies with examples of behaviors associated with neglect, namely delay, absenteeism, and high error rates.

Thus, based on Hirschman's (1970) initial studies, the authors propose the EVLN model, which was adapted by Farrell (1983) for organizational relationships, and identifies the strategies adopted by individuals in response to the decline in their satisfaction with tasks and the organization.

Farrell (1983) represents the EVLN model on an orthogonal plane with two axes: constructive/destructive and active/passive, developing four possible strategies. On the active and destructive axis, the individual chooses to exit (Exit) (this dimension also considers the intention to exit); on the active and constructive axis, the individual opts to exercise voice (Voice) with the intention of resolving the dissatisfaction; the option for loyalty (Loyalty) falls on the passive and constructive axis; and finally, the option of neglect (Neglect) falls on the axis of passive and destructive behaviors.

Several limitations to the EVLN model have been pointed out, including the existence of other behavioral strategies beyond those identified. Dowding et al. (2000) consider that the opposite of voice may not be neglect, as established by the EVLN model. In other words, they consider that the individual may choose not to exercise voice, resorting to silence, which can be considered as another behavioral strategy. In this sense, Dyne et al. (2003) suggests that silence in organizations can be an intentional and deliberate decision by the individual to withhold important information from the organization when satisfaction decreases, motivated by resignation (submissive silence), fear (defensive silence), and cooperation (pro-social silence), and as such, should be considered as a fifth behavioral strategy.

Still following this line of study, several authors (Sabino et al., 2015; Sabino & Cesário, 2019; Sabino et al., 2019) have found a strong relationship between submissive silence and defensive silence, which is why these were grouped into a single construct called Rejection Silence (RS). This new behavioral strategy is characterized by the individual deliberately choosing not to react, for reasons of self-protection and fear of possible repercussions. In their studies, these authors designate pro-social silence as Adherence Silence (AS), in which the individual chooses silence to protect the organization and for its benefit.

From the foregoing, with the reference that the rewards and, in particular, NFRs will lead to specific behaviors depending on the individual's assessment, the following hypothesis is established:

H1: Non-financial rewards influence loyalty, as well the behavioral strategies. This general hypothesis is broken down into six specific hypotheses (Table 2).

Table 2 – Specific hypotheses related to H1

H1a	Non-financial rewards (NFR) have a positive influence on loyalty (L)
H1b	Non-financial rewards (NFR) have a negative influence on the silence of rejection (SR)
H1c	Non-financial rewards (NFR) have a positive influence on the silence of adhesion (SA)
H1e	Non-financial rewards (NFR) have a negative influence on exit (E)
H1f	Non-financial rewards (NFR) have a positive influence on voice (V)
H1g	Non-financial rewards (NFR) have a negative influence on neglect (N)

Another limitation pointed to the EVLN Model has been the fact that it does not contemplate the potential antecedent and consequence relations between behavioral strategies (Sabino et al., 2019). We have been debating the position of loyalty in the context of behavioral strategies (Dowding et al., 2000).

However, Hirschman (1970) specifies loyalty as a "special attachment to an organization" (Hirschman, 1970, p.77) which determine the option of leaving (exit) or exercising the voice (Pauksztat et al., 2011; Sabino et al., 2019). Indeed, several studies suggest the possibility that silence may be influenced by loyalty (2011; Naus et al., Pauksztat et al., 2007; Sabino & Cesário, 2019; Sabino et al., 2019).

So, considering this approach to loyalty, a second hypothesis is established:

H2: Loyalty influences behavioral strategies.

This second general hypothesis is broken down into five specific hypotheses (Table 3).

Table 3 – Specific hypotheses related to H2

H2a	Loyalty (L) has a negative influence on the silence of rejection (SR)
H2b	Loyalty (L) has a positive influence on the silence of adhesion (SA)
H2c	Loyalty (L) has a negative influence on exit (E)
H2d	Loyalty (L) has a positive influence on voice (V)
H2e	Loyalty (L) has a negative influence on neglect (N)

As previously mentioned, Dyne et al. (2003) considered silence as a behavioral strategy, along with the voice. However, they also mentioned that the choice of the worker to exercise silence depends on their motivation (a set of different reasons) and only then choose to exercise their voice. Therefore, the choice of exercising the voice is initially determined by an option to exercise silence (Hirschman, 1970; Pauksztat et al., 2011; Sabino et al., 2019), which means that the individual's loyalty to the organization mediates the behavioral strategy they adopt.

So, considering the specificity of the military context in which the present study will be conducted, like the duty of loyalty to which the military, a third general hypothesis is established, reinforced by Hirschman's (1970) approach:

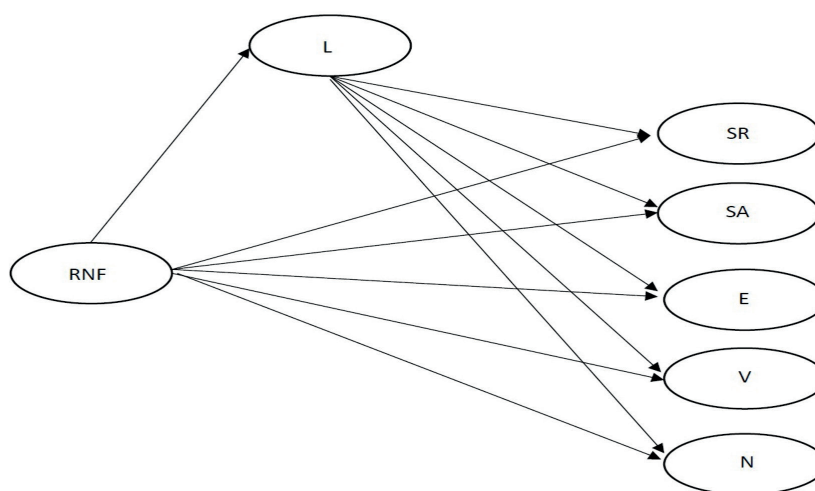
H3: Loyalty is a mediating variable in the relationship between NFRs and behavioral strategies.

This general hypothesis is broken down into five specific hypotheses (Table 4).

Table 4 – Specific hypotheses related to H3

H3a	The influence of non-financial rewards (NFR) on the silence of rejection (SR) is mediated by loyalty (L)
H3b	The influence of non-financial rewards (NFR) on the silence of adhesion (SA) is mediated by loyalty (L)
H3c	The influence of non-financial rewards (NFR) on the exit (E) is mediated by loyalty (L)
H3d	The influence of non-financial rewards (NFR) on the voice (V) is mediated by loyalty (L)
H3e	The influence of non-financial rewards (NFR) on neglect (N) is mediated by loyalty (L)

Following the previously theoretical framework and the formulated hypotheses, it was proposed the subsequent model (Figure 1).

**Figure 1 – Proposed Model**

Note: RNF: Non-Financial Rewards; L: Loyalty; SR: Silence of Rejection; SA: Silence of Adhesion; E: Exit; V: Voice; N: Neglect

4. Methodology

4.1. Population and Sample

The research population is the military permanent staff and civilian personnel of the Portuguese Air Force, integrated into the general careers and bound by a contract of employment in public functions.

3.709 electronic questionnaires were sent out, of which 348 were answered. The response rate was 9,4%, which, according to Hair et al. (2006), is considered satisfactory.

The sample consisted of 25 civilians (7%) and 323 military personnel (93%). In terms of gender, 98 (28.2%) were female and 250 (71.8%) were male. There was a range of ages between 20 and 64, with an average age of 42 and a standard deviation of 8.69. With regard to seniority in the military, the range varies from 1 to 40 years, with an average of 22 years and

a standard deviation of 9.13. As for the military personnel, the majority belong to the rank of Officer ($n = 181$; 52%), with the remainder belonging to the rank of Sergeant ($n = 142$; 41%).

4.2. Measuring Instruments

All questionnaires had already been translated and adapted to Portuguese in previous studies. The content of the questionnaires was adapted to the military context. The resulting version of this adaptation was validated by a group of 10 Armed Forces officers, including three military professors from the Army and Air Force academies and their suggestions were considered in the final version of the questionnaire. The answers were given in 5 points Likert-types, ranging from "1-Dissatisfaction" to "5-Total Satisfaction".

The measurement models were validated using Confirmatory Factor Analysis (CFA) using LISREL 9.3 (Jöreskog & Sörbom, 1996). The initial model was successively re-specified until an acceptable goodness of fit and an equally acceptable reliability value were obtained (Hair et al., 2006). The re-specifications were carried out by eliminating items with factor loading values of less than 0.5 and/or high modification indices (Hair et al., 2006; Jöreskog & Sörbom, 1996).

4.2.1. Non-Financial Rewards: Measurement Model

The scale proposed by Chiang and Birtch (2006) and adapted to the Portuguese context and the military context by Martins (2016) was used to measure the value of NFRs practices used in the organization. Eleven items measure extrinsic NFRs and intrinsic NFRs are measured by six items. The two-dimensional measurement model shows an excessively high correlation ($r=0,82$) between extrinsic NFRs and intrinsic NFRs suggesting the unidimensionality of these two constructs. The one-dimensional final measurement model consists of 3 items of intrinsic NFRs and 1 item of extrinsic NFRs (Table 5), which presented an acceptable goodness of fit ($\chi^2=1,13$; $df=2$; $\chi^2/df=0,57$; $RMSEA=0,025$; $AIC=748,427$; $CFI=1,00$; $SRMR=0,0121$, $GFI=0,996$).

Table 5 – Final Measure Model of Non-Financial Rewards

Item Code	Descriptive	Factor Loading
NFR_17	Existence of a training and professional development plan	0,55
NFR_4	Challenging job	0,81
NFR_7	Job satisfaction	0,83
NFR_8	Possibility to feel fulfilled	0,88

4.2.2. Exit, Voice, Loyalty, Negligence (EVLN) and Silence: Measurement Model

The behavioral strategies exit, voice, loyalty, and negligence (EVLN) were measured through the scale proposed by Nascimento (2010). The silence was measured through the questionnaire proposed by Dyne and collaborators (2003), adapted for Portugal (Sabino & Cesário, 2019; Sabino et al., 2019).

Thus, the EVN model (EVLN model without loyalty, given that the proposed model considers it a mediating variable) was measured by 16 items, with exit being measured by 6 items (1 inverted), voice by 5 items (2 inverted) and neglect by 5 items (1 inverted). After the CFA process, a measurement model was obtained with three items (1 inverted) to measure output, three items (2 inverted) to measure voice, and two items to measure neglect. A measurement model was obtained (Table 6) which showed acceptable goodness of fit ($\chi^2=13.94$; $df=17$; $\chi^2/df=0.82$; RMSEA=0.069; AIC=1169.637; CFI=1.00; SRMR=0.0407; GFI=0.966).

It should be noted that the three variables of the EVN model are correlated ($r_{(E,V)}=-0.29$; $r_{(E,N)}=0.21$; $r_{(V,N)}=-0.50$).

Table 6 – EVN Model Final Measurement Model

Item Code	Descriptive	Factor Loading
E_5	I have been actively looking for another alternative job	0,79
E_16_I	I am not currently thinking about changing institutions, even if I have an opportunity to do so	0,91
E_25	If I have the opportunity, I would like to change institutions during the next year	0,78
V_1	I feel free to present personal ideas or suggestions, even if they do not agree with my direct superior	0,75
V_11_I	I do not feel comfortable expressing an opinion or giving a suggestion that goes against the ideas defined by my direct superior	0,91
V_18_I	I do not feel comfortable expressing an opinion or giving a suggestion that goes against the ideas defined by the institution	0,89
N_22	As long as I receive my salary on time, I am not worried about the institution's problems	0,80
N_23	I am not very worried if I cannot fulfill my professional obligations	0,71

Loyalty was measured by three items (Table 7), presenting acceptable goodness of adjustment (AIC=533,609, not having sufficient degrees of freedom for the calculation of the other indicators of goodness of adjustment).

Table 7 – Final Model of Loyalty Measure

Item Code	Descriptive	Factor Loading
L_6	As I have confidence in the hierarchy of the institution, I do my work with rigor and I let the hierarchy make the decisions that it is his duty to take	0,74
L_12	When there is a problem I know that the hierarchy of the institution will solve it	0,86
L_13	I believe that this institution is a good place to work	0,73

Initially, seven items measured the silence of rejection, and five items measured the silence of adhesion. After the CFA process, a measured model was achieved (Table 7) with four items to measure the silence of rejection and three items to measure the silence of adhesion

($\chi^2=8,12$; $df=13$; $\chi^2/df=0,62$; $RMSEA=0,033$; $AIC=1545,682$; $CFI=1,00$; $SRMR=0,0242$; $GFI=0,986$). The correlation between rejection and adhesion silence was - 0,51.

Table 8 – Final Measure of Silence Model

Item Code	Descriptive	Factor Loading
SR_8	I do not talk or suggest ideas for change because I am afraid of the consequences	0,86
SR_15	I avoid expressing ideas of improvement of the institution to protect me	0,85
SR_20	I hold the solution to the problems because I am afraid of the consequences	0,84
SR_31	Passively, I keep ideas for solving problems for myself	0,67
SA_7	I adequately protect confidential information for concern about the institution	0,55
SA_19	I resist pressure from others to tell professional secrets	0,58
SA_26	I protect information for the institution to obtain a benefit	0,61

4.2.3. Common Method Biases

The questionnaire was of self-response. This could imply a common method of biases, with implications for the variance matrix (Podsakoff et al., 2012; Podsakoff et al., 2003). Analyzing this problem, Podsakoff et al. (2003, p. 880) proposed “that approximately one quarter (26.3%) of the variance in a typical research measure might be due to systematic sources of measurement error like common method biases”. So, it was used as criteria of variance biases the value of 25%. To identify the amount of the common variance the Common Methods Variance was used, as proposed by Podsakoff et al. (2003).

Starting from all the measurement models, a new latent variable was included, specifically the common factor, measured by all the items (manifest variables) present in the proposed model. Thus, the common variance corresponds to the average variance extracted from the common factor. In the specific case of the model proposed in this study, the average variance extracted from the common factor was 12%, lower than the 25% established by Podsakoff et al. (2003). Furthermore, the Construct Reliability (CR) of the common factor was 0,56, lower than the established value of 0,70 (Hair et al., 2006; Jöreskog & Sörbom, 1996), indicating that the common factor has a lower reliability than that established as recommended.

In sum, these results suggested that the common variance has a low influence on the estimation of the proposed model.

5. Results

5.1. Descriptive statistics of the measurement model after Confirmatory Factor Analysis (CFA)

All variables, except for the voice, have an average lower than the midpoint of the response scale, with negligence being the lowest (Table 9). It is also verified that there is a high correlation between the silence of rejection and voice ($r = -0,781$). All scales present

acceptable reliability except for the silence of adhesion scale, which has a reliability that is not acceptable (Cronbach's alpha = 0,381, AVE = 0,34, CR = 0,60).

Table 9 – Descriptive statistics of the sample (Confirmatory Factor Analysis final solution)

	Mean	Standard Deviation	AVE	CR	1.	2.	3.	4.	5.	6.	7.
1. NFR	2,59	0,659	0,61	0,86	(.812)						
2. L	2,55	0,677	0,61	0,82	.552**	(.805)					
3. SR	1,32	0,578	0,65	0,88	-.341**	-.274**	(.814)				
4. SA	2,52	0,379	0,34	0,60	.138*	.243**	-.225**	(.381)			
5. E	1,82	0,890	0,67	0,86	-.480**	-.535**	.254**	-.128*	(.793)		
6. V	3,62	0,738	0,73	0,89	.413**	.309**	-.781**	.196**	-.250**	(.850)	
7. N	1,08	0,504	0,48	0,70	-.268**	-.164**	.373**	-.204**	.156**	-.330**	(.626)

Note: NFR: Non-Financial Rewards; L: Loyalty; SR: Silence of Rejection; SA: Silence of Adhesion; E: Exit; V: Voice; N: Neglect; ** p<0.01; * p<0.05; In parentheses the Cronbach's Alpha Coefficient; AVE = Average Variance Extracted; CR: Composite Reliability.

These results lead us to question the presence of silence of adhesion in the proposed models, due to their unacceptable reliability, as well as the overlap of the silence of rejection with the voice because it presents a correlation higher than 0,70 (Hair et al., 2006).

5.2. Proposed Model Estimation

The proposed model, based on each hypothesis, was re-specified through the elimination of relations with a t-value lower than 1.96 (Hair et al., 2006; Jöreskog, & Sörbom, 1996).

First, it tested the relationship between non-financial rewards (NFR) and behavioral strategies. These relationships are direct effects. To have a mediation a relationship has to be statistically significant as Hair et al. (2006) established. The final model shows significant relationships between the non-finance rewards (NFR) and SEVN. All hypotheses are not rejected (Table 10).

The model show also a satisfactory goodness-of-fit ($\chi^2=219,19$; $df=158$; $\chi^2/df=1,387$; $RMSEA=0,096$; $RMSEA(90\%)=0,0870-0,104$; $GFI=0,852$; $SRMS= 0,0573$; $CFI=0,9,83$; $AIC=2411,550$) (Table 10).

Table 10 – Specific Hypotheses Test

Hypothesis	Estimation	T-Value (>1,96)	Conclusion
H1b NFR→SR	-0,48	-5.18	Not Rejected
H1c NFR→SA	0.35	2.90	Not Rejected
H1e NFR→E	-0,56	-6.10	Not Rejected
H1f NFR→V	0.45	5,08	Not Rejected
H1g NFR→N	-0.39	-3.78	Not Rejected

Note: NRF: Non-Financial Rewards; SR: Silence of Rejection; SA: Silence of Adhesion; E: Exit; V: Voice; N: Neglect.

In order to ascertain the existence of mediation between variables, Hair et al. (2006) establish, as a first condition, that a direct relationship must be statistically significant. Given the results obtained above, there is a possibility that the five specific hypotheses of mediation (H3) will not be rejected. However, Hair et al. (2006) establish, as a second condition, that the relationship supporting the indirect effects must also be significant (significance of indirect effects). If these two previous conditions are met, mediation should be tested.

Thus, after the first estimation of the model, the mediating variable - loyalty - was included in the model.

Following this approach, the hypothesis relating to indirect effects was tested (Table 11).

Table 11 – Hipóteses específicas relacionadas com os efeitos indiretos

Hypothesis		Estimation	T-Value (>1,96)	Conclusion
H1a	NFR→L	0.74	8.66	Not Rejected
H2a	L→SR	-0.16	-1.34	Rejected
H2b	L→SA	0.44	3.70	Not Rejected
H2c	L→E	-0,72	-6.64	Not Rejected
H2d	L→V	0.20	1.61	Rejected
H2e	L→N	0.09	0.56	Rejected

Note: NFR: Non-Financial Rewards; L: Loyalty; SR: Silence of Rejection; SA: Silence of Adhesion; E: Exit; V: Voice; N: Neglect

Using the significance of indirect effects (Hair, et al., 2006), these results do not support the mediation related to hypothesis H3a (NFR→L→SR), H3d (NFR→L→V), and H3e (NFR→L→N), Considering that the specific hypotheses related to the indirect effects, H2a, H2d, and H2e, were rejected.

So, the first estimated model was respecified through the elimination of relationships not statistically significant. After re-specification, a final model was found (Figure 2), with an acceptable fit ($\chi^2=259,41$; $df=196$; $\chi^2/df=1,32$; RMSEA=0,100; CFI=0,984; SRMR=0,0595; GFI=0,822; AIC=2825,448).

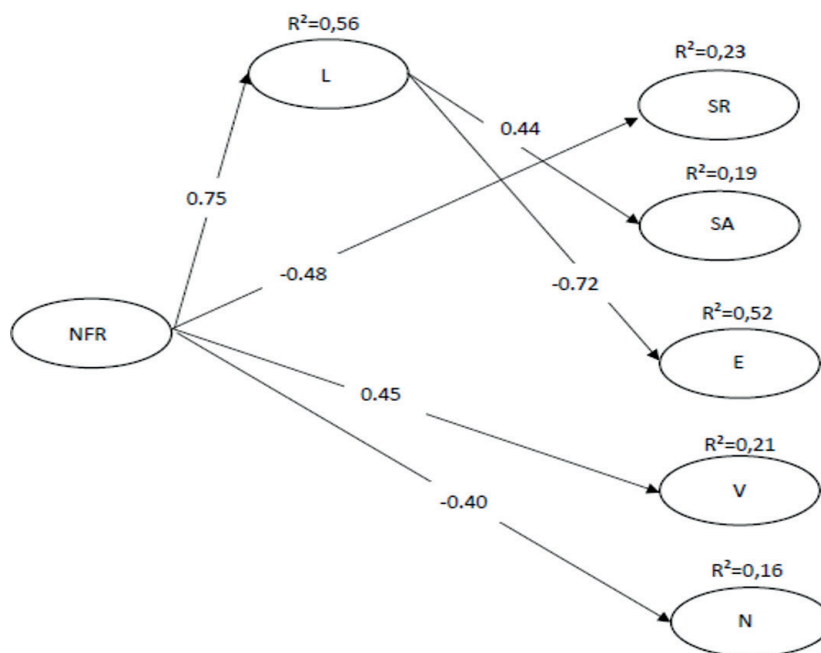


Figure 2 – Final Model 2

Note: NFR: Non-Financial Rewards; L: Loyalty; SR: Silence of Rejection; SA: Silence of Adhesion; E: Exit; V: Voice; N: Neglect

To test the relationship of mediating effects, the Z' Test proposed by MacKinnon et al. (2002) was utilized (see also the approach by Hair et al., 2006 or Hayes, 2018). The Z' is a "distribution of $\alpha\beta/\sigma\alpha\beta$ " (MacKinnon et al., 2002, p. 83). In this distribution, "the empirical critical value is 0,96, for the significance level of 0,05, instead of 1,96 for the standard normal test" (MacKinnon et al., 2002, p. 90), because the Z' distribution is different from the normal distribution.

The results of the final proposed model support the mediation of Silence of Adhesion (SA) and exit (E) by loyalty (L) (Table 12).

Table 12 – Specific hypotheses related to mediation

	Hypothesis	Z' (>0,96)	Conclusion
H3b	NFR→L→SA	3,789	Not Rejected
H3c	NFR→L→E	-4,372	Not Rejected

Note: NFR: Non-Financial Rewards; L: Loyalty; SA: Silence of Adhesion; E: Exit.

6. Conclusions

The present study was based on a structural model which establishes relations between NFRs (intrinsic and extrinsic) and behavioral strategies (model EVLN and Silence). However, following Hirschman's (1970) perspective, loyalty was tested as an antecedent of the remaining behavioral strategies.

The analysis showed that non-financial rewards were unidimensional, in line with the study by Martins (2016), which was only applied to civilian employees of the Portuguese Air Force.

Also with regard to non-financial rewards, it was found that the non-financial rewards in the study model are predominantly intrinsic, so in this analysis it can be considered that it is the individual's assessment of the performance of their own tasks that drives the behavioral strategies they adopt.

This study found that non-financial rewards influence behavioral strategies, namely rejection silence, adherence silence, loyalty, withdrawal, voice and neglect.

The final model mainly explains the strong relationship between non-financial rewards and loyalty ($R^2=0.56$) and between non-financial rewards and leaving ($R^2=0.52$). On the other hand, the variables least explained by this model are the silence of adherence ($R^2=0.190$) and negligence ($R^2=0.164$).

The final model also suggests the existence of mediation by loyalty in the relationship between the influence of non-financial rewards on the silence of joining ($Z' = |3.789|$) and leaving ($Z' = |4.372|$).

It should be noted that the hypotheses supporting the proposed model were based on studies carried out in a non-military context. However, the military context is a very specific environment with its own characteristics, in which it is important to highlight the high hierarchy and power distance (Allen, 2003; Fade, 2015; Gade, 2003; Taylor, Clerkin et al., 2015).

Therefore, a crucial question is how silence and voice can be exercised in the military context. This is a cross-cutting issue, as highlighted in several investigations (see, for example, Fachada, 2015; Taylor, Clerkin et al., 2015; Aker et al., 2016; Jaiswal et al., 2016; Martins, 2016; Woodruff, 2017).

In this respect, it is important to highlight the high correlation between rejection silence and voice ($r = -0.78$). In fact, in a context characterized by high hierarchy and high power distance, and even though the two variables are strongly inversely related, it is hypothesized that we are dealing with the same construct. This result is in line with the study by Sabino and other authors, carried out in a public university context (Sabino & Cesário, 2019; Sabino, Nogueira & Cesário, 2019), in which this correlation was 0.70, reinforcing the possibility of variable redundancy.

Another important result from this analysis was that, in a military context, the model does not provide a result that sufficiently explains the silence of rejection ($R^2=0.23$) and the silence of adherence ($R^2=0.19$). Similarly, the model has a low explanation for negligence ($R^2=0.16$).

As this was a mainly military sample, it is thought that these results are due to the military culture, values and identity, which exude a sense of hierarchy and discipline, a sense of duty, a focus on service to others and patriotism (see, for example, the exploratory study of public service motivation in a military context carried out by Taylor et al., 2015).

With regard to the model's weak explanation of silence (silence of rejection and silence of adherence), it is thought that the military profession, developed in a highly hierarchical context and with a high distance from power, as already mentioned, is associated with the unquestionable duty of obedience, which may be one reason why military personnel opt for silence. The choice of silence may also be associated with the impossibility of sharing classified information, given the duty of secrecy to which they are bound.

It is therefore understood that in the military context, silence will not be considered a strategy, but part of the military condition, considering the duty of obedience and the duty of secrecy to which military personnel are obliged under the terms of the Military Discipline Regulations. Therefore, and considering that the choice of silence may be associated with the specific situation in which it is exercised, it is suggested that studies be carried out to better characterize silence in the military environment in accordance with the situation in which it is exercised (eg, Taylor et al., 2015).

As mentioned above, it was also observed that negligence is the behavioral strategy least explained by the model ($R^2=0.16$). Considering, once again, the military context in which the study was carried out, in which there is a Military Discipline Regulation that provides for a set of sanctions applicable to the practice of disciplinary infractions associated with negligence, and also the powers and duties attributed to most of the military's direct managers, as framework elements for the good conduct of their subordinates, it is considered unlikely that negligence is a repeated practice, in terms of behavioral strategy.

The results of the final model also suggest that loyalty may be a mediating variable in the relationship between non-financial rewards and leaving. This confirms the mediation proposed by Hirschman (1970), who characterized loyalty as a "special attachment" (Pauksztat et al., 2011) that precedes leaving and voice. In fact, in the military context where the study was carried out, loyalty is particularly important, given the values inherent to the profession and military status, namely the duty of loyalty to which military personnel are also obliged. As such, it can be considered that this duty carries a lot of weight when military personnel are considering leaving the institution.

Although the final model does not show a result that sufficiently explains the silence of adherence ($R^2=0.19$), as mentioned above, the results of the final model also suggest that loyalty may be a mediating variable in the relationship between non-financial rewards and the silence of adherence. Considering that, in the silence of adherence, the individual opts for silence to protect the organization itself and for its benefit, the mediation suggested by the model fits in with military culture. In fact, it could be considered that loyalty, namely the duty of loyalty to which the soldier is obliged, is a factor that weighs on the decision to opt for silence, as he feels impelled to protect his organization.

Thus, in view of the above, the results obtained made it possible to achieve the established research objectives, confirming that there is a significant relationship between non-financial rewards and behavioral strategies, as shown in the proposed model, explaining 56% of the variance in loyalty, 52% of the variance in exit, 21% of the variance in voice and 23% of the variance in rejection silence. Thus, the study suggests that non-financial rewards are particularly explanatory of loyalty and exit, as mentioned above. The results also highlighted that the non-financial rewards that individuals value most, such as a challenging job, job satisfaction, the possibility of feeling fulfilled and the existence of a training and professional development plan, have a high influence on behavioral strategies.

In short, by identifying the impact of non-financial rewards on behavioural strategies, as well as their characterization, the results of this study are considered to provide a significant contribution to knowledge in the area of human resource management.

In terms of limitations, we refer to the fact that the sample was mainly made up of military personnel, which does not allow us to extract results that allow comparisons between military personnel and civilian workers for the performance of duties in the Portuguese Air Force.

Another limitation is related to the fact that the study was limited to just one branch of the Armed Forces. By focusing only on the Portuguese Air Force and not covering the other branches of the Armed Forces (Army and Navy), the research only allows conclusions to be drawn for the military and civilians of the Portuguese Air Force. It is therefore suggested that future research extend the analysis to other branches of the Armed Forces.

In view of the results obtained and the analysis carried out, it is also suggested that future research adapt and validate the silence scale for the military context. Alternatively, it is also suggested that a new silence scale be created and validated, taking into account the various situations that occur in the course of military life in which silence can be exercised as a behavioral strategy.

In this sense, non-financial rewards were also based on a model (Chiang & Birtch, 2006) that was not developed for the military environment. There is therefore a need to develop a concrete model of non-financial rewards for the military context, using a qualitative approach, namely more or less structured personal interviews. On the other hand, we suggest using a motivational measurement model based on Self-Determination Theory (see, for example, the scale proposed by Xu, 2022).

Finally, it is considered that this research, by reaching conclusive results, has contributed to expanding scientific knowledge. The new set of relationships found between non-financial rewards and behavioral strategies, in a military context, will make it possible to advance research both within the military context and in the civilian context, whether public or private.

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