

## Employees' performance in a Mexican government agency depends on satisfaction with feedback

El desempeño de los empleados de una agencia gubernamental mexicana depende de la satisfacción con la retroalimentación

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### Abstract

Knowledge on the impact of feedback orientation measures and the effect of satisfaction with feedback on performance is scarce. Therefore, the aims of this study were: to identify the influences of feedback utility, accountability, self-efficacy and social awareness on satisfaction with feedback; and to define the effect of satisfaction with feedback on performance through regression analyses for the case of employees of a Mexican government agency. Then, two questionnaires were designed and applied. The first one considered the feedback orientation scale and 76 employees. The second questionnaire involved measures of in-role behavior and five managers. Almost 87% of the employees' satisfaction with feedback variation is explained by the direct additive effects of utility, accountability, self-efficacy, and social awareness. The employees' performance variation depends on satisfaction with feedback.

**Keywords:** Feedback utility; accountability; self-efficacy; social awareness; feedback orientation scale; satisfaction with feedback.

### Resumen

El conocimiento sobre el impacto de variables orientadas a la retroalimentación y del efecto de la satisfacción con la retroalimentación sobre el desempeño es escaso. Así, los objetivos de este estudio fueron: identificar el efecto de la utilidad de la retroalimentación, responsabilidad, auto-eficacia y conciencia social sobre la satisfacción con la retroalimentación; y definir el efecto de la satisfacción con la retroalimentación sobre el desempeño a través de análisis de regresión lineal para el caso de una agencia gubernamental mexicana. Así, dos cuestionarios fueron diseñados y aplicados. El primero consideró la escala de orientación a la retroalimentación y 76 empleados; el segundo involucró medidas de actuación en función y cinco gerentes. El 87% de la satisfacción de los empleados con la retroalimentación es explicada por los efectos aditivos directos de utilidad, responsabilidad, auto-eficacia y conciencia social. La variación del desempeño de los empleados depende de su satisfacción con la retroalimentación.

**Palabras clave:** Utilidad de la retroalimentación; responsabilidad; autoeficacia; conciencia social; escala de orientación a la retroalimentación; satisfacción con la retroalimentación.

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## Introduction

Today, organizations acknowledge that talented employees are vital to organizational success and are an organization's most valuable asset (Maurer & Weiss, 2010). Therefore, formal human resources programs are implemented in organizations in which feedback is incorporated. Feedback was defined by Saedon, Salleh, Balakrishnan, Imray & Saedon (2012) as specific information about the comparison between a trainee's observed performance and a standard. So, one of the benefits of feedback is to increase employee's learning and knowledge about their results (Belschack & Den Hartog, 2009). In this learning process, it is necessary that employees receive information about the degree to which they have or have not met performance standards (Ilgen & Davis, 2000). However, individual differences may impact the overall feedback receptivity (Rasheed, Khan, Rasheed & Munir, 2015).

Individuals' feedback reactions are assumed to play a key role in improving task performance after feedback (Kuvaas, 2006). In this context, Anseel, Van Yperen, Janssen & Duyck (2011) tested a model by considering the interaction between achievement goals and feedback indirectly affect task performance through its effect on employees' reactions. These reactions could be related to cognitive and emotional aspects. Moreover, positive feedback would lead to positive emotions, while negative feedback will evidence negative emotions (Smith & Lazarus, 1990). Thus, it is important to study feedback reactions as a mediating-process variable through which achievement goals exert their influence on performance.

Many previous researches have looked at the effects of achievement goals on feedback-seeking behavior. Inside this subject, Crommelinck & Anseel (2013) pointed out that there are several studies reporting positive effects of feedback-seeking behavior on job performance (Renn & Fedor, 2001). Other investigations have been focused on the role of achievement goals in relation to individuals' reactions to feedback (Anseel *et al.*, 2011). This way, it has been demonstrated that performance goals, grounded in interpersonal standards, may have beneficial effects on feedback receptivity.

Individual differences in feedback receptivity are associated to a variable known as feedback orientation (London & Smither, 2002). Several studies about feedback orientation have included factors such as the behavioral propensity toward feedback seeking, belief in the value of feedback, liking feedback, sensitivity to others' views about oneself, cognitive tendency to deal with feedback, and feeling of accountability (Rasheed *et al.*, 2015). Feedback orientation is based on theories related to attitude (Ajzen & Fishbein, 1977), motivation (Vroom, 1964), and the understanding that job attitudes could be determined by satisfaction with feedback (Ilgen, Peterson, Martin & Boeschen, 1981; Rasheed *et al.*, 2015). Consequently, Linderbaum & Levy (2010) developed a construct called feedback orientation scale (FOS), which is based on four measures: utility (U), accountability (A), self-efficacy (SE), and social awareness (SA).

Current knowledge on FOS recognizes a known linkage between individual exposure to the benefits of feedback and improved in-role performance (P) (Dahling, Chau & O'Malley, 2012; Gregory & Levy, 2012; Linderbaum & Levy, 2010). Linderbaum & Levy (2010) and London & Smither (2002) consider U as a factor of the FOS. It implies the disposition of an individual to believe that feedback is essential in accomplishing personal effectiveness at work (Whitaker & Levy, 2012). In addition, the individual's utility perception could affect motivation about the acceptance of feedback (Brett & Atwater, 2001). Another point is that U has been linked to key attitudes like job involvement and perceptions related to performance appraisal's usefulness and perceived benefits of developmental activities (Linderbaum & Levy, 2007). Therefore, U is a key factor to influence job performance.

Furthermore, individuals with a full value of A could adapt their behaviors in a constructive way, as expected by others (Tetlock, 1992). Thus, the internal beliefs of an individual about A may influence the

development of any behavior (Leonard & Williams, 2001). Besides, A would enhance individuals' performance and help the individual to have a positive view of himself or herself (Rasheed *et al.*, 2015). Consequently, A shows a sense of responsibility to follow up the given feedback, which could improve performance over time.

On the other hand, feedback SE is related to the acknowledged competency of an individual to interpret feedback accurately and respond to it (Linderbaum & Levy, 2010). In other words, when individuals have the notion of SE, they exhibit the ability to modify their attitudes by developing their confidence; SE is useful to deal with feedback (Maurer, Mitchell & Barbeite, 2010). Several researchers (Keller & Bless, 2007; Khurshid, Oasmi & Ashraf, 2012; Locke, 1996) recognize SE as one of the main predictors of performance outcome. Therefore, it is understood that SE is related to the individuals' confidence in their competencies to perform a task and will impact their P.

Public self-consciousness is related to SA (Fenigstein, Scheier & Buss, 1975). There is some knowledge about the link between public self-consciousness and feedback seeking (Levy, Albright, Cawley & Williams, 1995). Even more, other studies are consistent with a positive relation between feedback seeking and performance (Morrison, 2002; Van der Rijt, Van den Bossche, Van de Wiel, Segers & Gijsselaers, 2012; Whitaker, Dahling & Levy, 2007). Thus, SA is associated to the external pressure that a person experiences about feedback. Therefore, SA as feedback orientation measure can positively impact the individuals' performance (Rasheed *et al.*, 2015).

A key element of the reaction of feedback recipient is SF (Keeping & Levy, 2000). In fact, SF has been confirmed to be an important measure of attitudes toward the organization and job behaviors (Zhang & Zheng, 2009). Therefore, SF could impact employee's performance (Rasheed *et al.*, 2015).

Rasheed *et al.* (2015) investigated the FOS effects on P with the mediation of SF. The subjects of the study were predominantly females. They work as nurses in three of the major hospitals in the city of Saudi Arabia. The results support a direct association of U, A, SE, and SA with P as well as indirect relationships through SF. However, there is insufficient research about the feedback orientation as a central part of P (Dahling *et al.*, 2012). Moreover, knowledge about the impact of feedback orientation measures and the effect of SF on P is yet scarce (Rasheed *et al.*, 2015). Therefore, the aims of this study were: i) to identify the influences of U, A, SE, and SA on SF; and ii) to define the effect of SF in its mediating influence on P through Pearson correlations and regression analyses for the case of employees of a Mexican government agency.

## Materials and Methods

This research work was designed to address individuals' perceptions toward the performance appraisal feedback and its influence on P through the mediation of SF. To evaluate the overall receptivity to feedback, this study considered the variables U, A, SA, and SE toward feedback, as proposed by Linderbaum & Levy (2010). Additionally, SF was measured as suggested by Tonidandel, Quiñones & Adams (2002). For P, some items were adopted from the measures developed by Williams & Anderson (1991).

A transversal quasi-experiment was accomplished in a government agency from Michoacan, Mexico. It considered a sample of 76 employees from five different departments and their respective managers (employees ( $n= 76$ ); managers ( $n= 5$ )). The employees' sample consisted of 36% female participants and 64% male employees. Their age ranged from 20 to more than 50 years, and 86% of the sample was between 26 and 54 years old, 11% represented the employees under 26 years old, and the remaining 4% was above 54 years old. Regarding the education level, 47% of the participants had a college

degree, 8% were graduated, 34% had high school education, and 11% had elementary school education. Also, 49% of the sample had less than five years at the government agency, 50% had worked between six and 15 years and only 1% had worked more than 20 years. Concerning the managers, all of them were male. They were between 46 and 54 years old, and all of them had a college degree. It is worth noting that almost all the agency's personnel was involved in this study; the only exception was the general director.

Data was generated through two questionnaires answered by the two different groups (employees and managers). The first was prepared for employees to respond their perception about the last performance appraisal feedback, considering the FOS (table 1) (Linderbaum & Levy, 2010). The second questionnaire aimed to measure the employees' in-role performance from the managers' point of view. In each case, a cover letter was included to explain the objectives of the study and to assure the anonymity of the respondents.

**Table 1.** Feedback orientation scale measures and in-role performance.

Measure	Code	Description	Reference
Utility	U	It denotes the individual's propensity to perceive the usefulness of feedback in accomplishing goals and improving his or her performance.	Linderbaum & Levy (2010)
Accountability	A	It is centered at the feeling in which one is indebted to respond and follow up on feedback.	London & Smither (2002)
Self-efficacy	SE	It evaluates an individual's confidence and beliefs about that competence.	Chen, Gully & Eden (2001)
Social awareness	SA	It specifies an individual's sensitivity to others' views of oneself.	London & Smither (2002)
Satisfaction with feedback	SF	It focuses on employees' response to performance appraisal feedback.	Keeping & Levy (2000)
In-role performance	P	It measures the immediate managers' appraisal regarding the employees' achieved duties as established in their job description.	Rasheed et al., (2015)

Source: Author's own elaboration.

The employees questionnaire was designed to measure the FOS referred by Linderbaum & Levy (2010), and the satisfaction with feedback was based on the scale developed by Tonidandel *et al.* (2002). Therefore, the developed questionnaire involved the two scales and had 28 items; all of them include responses on a 5-point Likert-type scale (1= strongly disagree to 5= strongly agree). These items were translated into Spanish and validated by 10 experts. The validation process involved the content validity

ratio (CVR) proposed by Lawshe (1975), and the estimated CVR was 0.88. After that, the reliability of the instrument was tested through the Cronbach's alpha, whose value was 0.96. This value means that the instrument has an excellent internal consistency.

Regarding the first questionnaire, the participants completed it during their working hours. To answer the questionnaire, the employees needed to think about performance appraisal feedback in a specific manner, according to the FOS measures (table 1). On the other hand, the second questionnaire was applied individually to each manager. The purpose of this questionnaire was to evaluate the employees' P. For this questionnaire design, six items were chosen from the measures of in-role behavior as developed by Williams & Anderson (1991). The CVR was 0.84 and its Cronbach's alpha was 0.90; thus, this instrument has an excellent internal consistency. Besides, all the items requested responses were based on a 5-point Likert-type scale.

Generated data were loaded in a *Microsoft Excel* spreadsheet, version 14.7.1 (Microsoft Corporation, 2011). Database was used to carry out Pearson correlations ( $r$ ) and linear regression analyses, using the *StatPlus:mac LE* software, version 6.1.25 (StatPlus:mac, AnalystSoft Inc., 2016). It is hypothesized that each bivariate is equal to zero ( $r=0$ ). It was considered in the null hypotheses ( $H_0$ ) that the slopes ( $\beta$ ) of the FOS measures in regression functions are nil ( $\beta_U=0$ ,  $\beta_A=0$ ,  $\beta_{SE}=0$ ,  $\beta_{SA}=0$ ) when SF was the response, and the SF slope ( $\beta_{SF}=0$ ) is nil when the response is P, as pointed out by Draper & Smith (1966).

## Results

Descriptive statistics of the variables and Pearson correlation coefficients can be seen in table 2. The variable with the highest variation (coefficient of variation, CV= 17.21%) is A. On the other hand, the variable with the lowest variation (CV= 13.15%) is P.

**Table 2.** Basic statistics and Pearson correlation coefficients ( $r$ ) of the feedback orientation scale measures

Variable	Mean	Standard deviation		Utility	Accountability	Self-efficacy	Social awareness	Satisfaction with feedback
Utility	4.139	0.604						
Accountability	3.939	0.678	$r$	0.488				
			$p$	7.61E-6				
Self-efficacy	4.188	0.478	$r$	0.382	0.631			
			$p$	6.6E-4	1.032E-9			
Social awareness	3.908	0.669	$r$	0.509	0.577	0.502		
			$p$	2.69E-6	4.978E-8	3.844E-6		
Satisfaction with feedback	3.947	0.537	$r$	0.705	0.769	0.682	0.802	
			$p$	1.207E-12	<0.001	1.156E-11	<0.001	
Performance	3.932	0.517	$r$	0.675	0.756	0.678	0.77	0.97

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<i>p</i>	2.302E-11	<0.001	1.647E-11	<0.001	<0.001
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Source: Author's own elaboration

All correlations were positive and statistically significant,  $p < 0.001$  (table 2). All evidenced significant correlations suggested multicollinearity. The highest correlation ( $r = 0.97$ ) was between SF and P, whereas U and SE were least correlated ( $r = 0.382$ ). The lowest correlation ( $r = 0.682$ ) with SF corresponds to SE. Interestingly, SE and U had the lowest correlations ( $r \approx 0.67$ ) with P.

In general, table 2 results suggest that our database can be useful to identify the direct influences of U, A, SE, and SA on SF and the mediating role of SF on P. Thus, linear regressions were performed by firstly considering U, A, SE, and SA as independent variables and SF as a dependent variable, and secondly SF was considered as an independent variable and P as a dependent variable.

Linear regression results (table 3) show the direct effect ( $\beta$ ) of each feedback orientation scale measure on SF. Effects of the four independent variables are significant, so the  $H_0$  are rejected. Notably, SE and U explained a lower variation of SF than SA and A, by taking  $R^2$  values into account. A separated multiple linear regression analysis yields the following model:

$$SF = -0.169 + 0.262U + 0.214A + 0.225SE + 0.318SA; p_U = 2.679E-7, p_A = 0.00004, p_{SE} = 0.0007, p_{SA} = 1.069E-9; R^2 = 0.87.$$

**Table 3.** Direct influences of feedback orientation scale measures on satisfaction with feedback.

Variable	Intercept	Slope ( <i>b</i> )	<i>p</i>	$R^2$
Utility	1.352	0.627	1.207E-12	0.497
Accountability	1.547	0.609	<0.001	0.591
Self-efficacy	0.737	0.767	1.157E-11	0.465
Social awareness	1.428	0.645	<0.001	0.644

Source: Author's own elaboration.

Effects of the four feedback orientation scale measures resulted to be significant whereas the intercept does not differ from zero ( $p = 0.451$ ). This complex model explains almost 23% more variation of the independent variable SF than the simple model, having SA as an independent variable.

On the other hand, the dependence of P on SF was estimated throughout regression analyses with intercept and intercept fixed to zero. In both first-order models, the effect of SF on P was strongly significant.

$$P = 0.245 + 0.934SF; p_{\text{Intercept}} = 0.026, p_{SF} = 0; R^2 = 0.941.$$

$$P = 0.995SF; p_{SF} = 0; R^2 = 0.999.$$

## Discussion

The impact of feedback orientation measures and the effect of SF on in-role job performance have been considered in scarce studies. An interesting case belongs to nurses' in role performance at public hospitals (Rasheed *et al.*, 2015). Knowledge generated by this way could be useful to aid managers and human resource development practitioners in the understanding and enhancement of feedback orientation.

There are only a few studies that have directly examined the role of achievement goals in relation to individuals' reactions to feedback (Anseel *et al.*, 2011). In this context, performance goals grounded in interpersonal standards may have beneficial effects on feedback reactions (Anseel *et al.*, 2011). Such a knowledge is necessary because the direct influences of feedback orientation scale measures on P of employees at a governmental agency, as a case study, cannot be ignored. Thus, our findings demonstrate the direct influences of U, A, SE, and SA on SF, and the mediating role of SF on P of 76 employees.

All the study feedback orientation scale measures (U, A, SE, and SA) and SF had positively significant impacts on performance, as evidenced through Pearson correlation coefficients. These results extend the known linkage between individual exposure to the benefits of feedback and P (Dahling *et al.*, 2012; Gregory & Levy, 2012; Linderbaum & Levy, 2010). The highest correlation ( $r = 0.97$ ) between SF and P suggests that the former variable may play a fully mediating role between the remaining feedback orientation measures (U, A, SE, and SA) and employees' P (Rasheed *et al.*, 2015), in the case of this government agency.

In addition, the highest correlation coefficient ( $r = 0.77$ ) between SA and P reinforces prior knowledge about a sense that SA can positively impact the P of employees, as pointed out by Rasheed *et al.* (2015). Nonetheless, results in table 2 suggest the all four feedback orientation scale measures had higher impacts on SF than on P when measured as correlation coefficients. This interpretation supports the idea that SF may play a fully mediating role between these feedback orientation measures and P and agree with statements pointed out by Dahling *et al.* (2012), Gregory & Levy (2012), and Linderbaum & Levy (2010).

The interesting idea that the sense of social awareness can positively impact the P of employees (Rasheed *et al.*, 2015) is also supported by the evidenced first-order model corresponding to the direct effect of SA on SF. This model explains more SF variance than the others; however, remaining models explained important percentages of SF variance, suggesting that U, A, and SE are important variables. This idea is also supported because the estimated complex model explains almost 23% more variation of SF than the simple model having SA as an independent variable.

SF mediating role on P was evidenced through two first-order models. One with intercept and another with intercept fixed to zero. In both cases, the effect of SF on P was positive and strongly significant. These results agree with many obtained by some researchers (Dahling *et al.*, 2012; Gregory & Levy, 2012; Linderbaum & Levy, 2010), but they disagree with those pointed out by others (Jawahar, 2010). Nonetheless, there is strong evidence of positive effects of SF on P, as in this current case. In general, all evidenced positive relationships could be because a positive feedback would lead to positive emotions, as pointed out by Smith & Lazarus (1990).

Our study findings on the relationships between the FOS measures and P, as mediated by SF, contribute to unlock prospects focused toward the modification of negative effects of feedback in practice (Ammons, 1956; Ashford & Cummings, 1983; Payne & Hauty, 1955). Then, supervisors might be able to develop strategies for improving satisfaction with feedback among employees when developing feedback orientation (London & Smither, 2002) and, therefore, in-role performance will be enhanced and thus organization goals could be more effectively achieved.

It is widely recognized that employees who feel accountable to feedback in order to protect their self-image will respond to feedback positively; then, they will show their satisfaction. The SF may also encourage them to improve their P. This study demonstrated the usefulness of SF mediating role between various feedback orientation measures and performance; however, all the estimated relationships have not been tested. In this context, future works can involve structural equation modeling to test this or another specific set of relationships by considering observed variables (items to define U, A, SE and SA, and P) and latent variables (U, A, SE, SA, and SF) as a whole (Savalei & Bentler, 2010).

Results of this study suggest a direct association of U, A, SE, and SA with P as well as indirect relationships through SF. Rasheed *et al.* (2015) results support similar ideas. Then, FOS results appear to be unrelated to gender, culture, and nationality. In fact, this study involved predominantly Mexican males whereas participants in the Rasheed *et al.* (2015) study were Saudi Arabian females. On the contrary, an implicit limitation of this study is the reliance on self-report measures. It is known that self-report measures are susceptible to common method variance.

## Conclusions

Our results are compelling evidence on the importance of the individuals' perception about performance appraisal feedback. Performance of employees of a Mexican government agency depends strongly on feedback orientation as well as the mediating role of satisfaction with feedback. That is, satisfaction with feedback is influenced directly by the feedback orientation measures; these measures are utility, accountability, self-awareness, and self-efficacy. Future studies should ascertain the generalizability of the FOS.

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