

Psychological Contract and Organizational Change: Assessing M&As' Impact on Survivors of Pharmaceuticals in Puerto Rico

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Received: October 10, 2015

Accepted: November 28, 2015

■ ABSTRACT

Mergers and acquisitions (M&A) affect the psychological contract of employees. This study assessed the impact of the M&A on survivors' psychological contract, job satisfaction, organizational commitment, turnover intention, and whether credible explanation moderated employees' reactions. Statistical analyses were performed on data gathered from 196 respondents of two pharmaceuticals in Puerto Rico. Results revealed an inverse correlation between perceived psychological contract violation (PCV) and the variables job satisfaction and organizational commitment. They also confirmed the direct correlation between PCV and the variable turnover intention. This study found an effect of the moderating variable credible explanation on the variables job satisfaction and organizational commitment. An understanding of psychological contract theory may reduce the perceived violation and its impact on employees' attitudes.

Keywords: psychological contract violation, mergers and acquisitions, job satisfaction, organizational commitment, turnover intention

■ RESUMEN

Las fusiones y adquisiciones (F&A) afectan el contrato psicológico de los empleados. Este estudio evaluó el impacto de las F&A en el contrato psicológico, la satisfacción laboral, el compromiso organizacional, la intención de dejar la empresa, y si la explicación creíble moderó las reacciones de los empleados. Se realizaron análisis estadísticos de los datos de 196 encuestados de dos farmacéuticas en Puerto Rico. Los resultados revelaron una correlación inversa entre la percepción de violación del contrato psicológico (VCP) y las variables satisfacción laboral y compromiso organizacional. También confirmaron una relación directa entre la VCP y la variable intención de marcharse. Este estudio encontró un efecto de la variable moderadora explicación creíble sobre las variables satisfacción laboral y compromiso organizacional. La comprensión de la teoría del contrato psicológico puede reducir la violación percibida y su impacto en las actitudes de los empleados.

Palabras clave: violación del contrato psicológico, fusiones y adquisiciones, satisfacción laboral, compromiso organizacional, intención de marcharse de la empresa

Changes, such as mergers and acquisitions (M&A), involve changes in management, organizational climate, workforce composition, and bring a sense of uncertainty and insecurity to survivors. Survivors refer to employees who remain within an organization after a significant organizational change (Baruch & Hind, 2000) such as mergers and acquisitions. M&A activity is increasing and will continue to grow (Weber, Tarba, & Öberg, 2013).

In the pharmaceutical environment, M&A have proven to be very popular as they have been used both for creating strong companies and for conquering new markets; currently this industry is one of the most expansive and profitable industries in the world (Condrat & Boboia, 2012). Some of the top U.S. and global pharmaceuticals operate in Puerto Rico, and their M&A activities directly affect Puerto Rican employees.

A main support of Puerto Rico's economy is the manufacturing sector (47.5% of GDP). According to the Pharmaceutical Industry Association of Puerto Rico, (PIAPR, 2013), the biopharmaceutical industry represents 26.5% of the Island's GDP; 60% of all Island imports, and 98% of all Island exports; and generates over 86,000 jobs (18,000 direct and 68,000 indirect). The importance of this industry supports focusing on the assessment of Puerto Rico's pharmaceutical sector and its survivors as an object of study, specifically, within the context of M&A.

Although the financial value of the M&A activity is generally easy to calculate, the human value and cost of these transactions are not. Researchers have argued the primary reason M&A fail is the lack of consideration of the human factor (Weber et al., 2013). Survivors are described as experiencing "merger syndrome" (Buono & Bowditch, 1989/2003); hence, the financial results of M&A are hard to explain without considering M&A's human side (Cho, 2003). The present research addresses the effect of both perceived psychological contract breach (PCB) and psychological contract violation (PCV) on survivors' attitudes after M&A.

Business disruptions such as M&A affect employees' perceptions of their psychological contract with their employer. Mergers are used to gain market share, competitive advantage, increased

revenues, and risk and product diversifications (Ferrer, 2012). Employees may perceive a PCB as organizations change (Robinson & Rousseau, 1994). Employees' perceptions of a PCV may engender negative outcomes, such as diminished performance, organizational commitment, job satisfaction and reduced trust (Agee, 2000).

The objective of this study was to investigate from a psychological contract perspective the attitudes of survivors of M&A within the pharmaceutical industry in Puerto Rico. Specifically, the researcher assessed the effects perceptions of PCB and PCV had on job satisfaction (JS), commitment to the organization (CO), and turnover intention (TI) of survivors of M&A, of companies within the pharmaceutical industry that merged five or six years ago.

A literature review on psychological contract theory shows that contracts, whether written or oral, are exchange agreements that bind the transacting parties and regulate their activities and are enforced, or at least recognized, in law (Farnsworth, 1982; cited in Rousseau, 1989). In any employment relationship, there are three main types of contracts: formal (a written agreement between two parties that clearly specify the obligations of both sides), implied (an agreement between two parties based on previous interactions with one another), and psychological (an individual's subjective beliefs and perceptions regarding the terms and conditions of a perceived agreement that individual has established with another party; Rousseau, 1989). All contracts have a psychological component, which is inherently perceptual and deals with implicit details and perceived obligations beyond those that can be explicitly described in formal legal terms (Pavlou & Gefen, 2005), which result from all contracts being inherently incomplete (MacNeil, 1980). Psychological contract theory posits that a social element exists in contractual relationships, according to the social exchange theory (Agee, 2000; Coyle-Shapiro & Conway, 2005).

The present research is based on the theoretical contribution of Rousseau's (1989) psychological contract, which marked a fundamental shift in the meaning and functioning of contracts. As proposed, employees perceive a violation to such contracts when the organization adapts to environmental challenges through significant

changes. The present study adopted an idiosyncratic perspective of the psychological contract, since Rousseau defined psychological contract as “an individual belief, shaped by the organization, regarding terms of an exchange agreement between individuals and their organization” (p. 9). This belief arises from the perception that a promise has been made, such as of employment or career opportunities, and a consideration offered in exchange for it, such as accepting a position or foregoing other job offers (Rousseau & Tijoriwala, 1998). By definition, psychological contracts exist on an individual level and are based solely upon an employee’s perceptions (Morrison & Robinson, 1997) and begin to form very early in the employee-employer relationship (Baker, 1985); as such, these beliefs may diverge from what is in writing and from interpretations by other parties (Rousseau & Tijoriwala, 1998). Rousseau (1995) posited that a key feature of a psychological contract is that the individual voluntarily assents to make and accept certain promises as he or she understands them. It is what the individual believes he or she has agreed to, but not what that person intends, that makes the contract.

The general terms researchers have focused on in the study of psychological contracts are the ends of a contractual continuum; “transactional” and “relational” (Rousseau, 1989, 1995). Transactional terms are exemplified by a “fair day’s work for a fair day’s pay,” focusing on short-term monetizable exchanges. Relational contracts focus on open-ended relationships involving considerable investments by both employees (company-specific skills, long-term career development) and employers (extensive training), and is the focus of the present study because of the long-term, highly subjective, and dynamic nature of the relationship between the survivors of M&A and their employers.

Although the literature uses the terms PCV and PCB interchangeably, this study distinguishes them because even though both constructs are closely related, they are measured differently. A contract breach is the perception of a discrepancy between what was promised and what was actually experienced, while a contract violation is the intense affective experience that frequently follows

that perception (Morrison & Robinson, 1997). After either, an employee may experience a reduction in JS or organizational commitment, and increase his or her turnover intention.

Theories and Hypotheses

The present research is grounded on the framework of the psychological contract theory, which is defined as “an individual belief, shaped by the organization, regarding terms of an exchange agreement between individuals and their organization” (Rousseau, 1989).

The study has evaluated the relationship between perceived PCV and M&A survivors’ job satisfaction, organizational commitment, and turnover intention. Further, the study attempted to evaluate the moderating effect of the economic crisis as a justification or credible explanation that reduces the perception of psychological contract breach and violation on the attitudinal outcomes of survivors of mergers and acquisitions. The present research has proposed four hypotheses to be tested, expressed in terms of null hypotheses (H_0) and alternative hypothesis (H_1). The latter are the substantive or research hypotheses.

Psychological Contract and Job Satisfaction

JS is the perception that one’s job fulfills the important values that are congruent with one’s needs (Locke, 1976), the emotional response or feeling (positive or negative) an employee has about her or his job (Martin & Bennett, 1996), and an employee’s attitude, a summary evaluation, about the job from a variety of aspects (Boes, 2006). Violation of these perceptions is associated with lower levels of JS (Robinson & Rousseau, 1994); thus, the first hypotheses on the relationship between perceived PCB and PCV and JS in pharmaceutical companies facing M&A in Puerto Rico follow:

Hypothesis 1a. There is an inverse correlation between M&A survivors’ perception of psychological contract breach and job satisfaction.

Hypothesis 1b. There is an inverse correlation between M&A survivors' perception of psychological contract violation and job satisfaction.

Psychological Contract and Organizational Commitment

Organizational Commitment (OC) is an important variable in understanding the work behavior of employees in organizations (Mowday, Steers, & Porter, 1979). OC comprises three factors: the desire to remain an employee, the willingness to exert effort on behalf of the organization, and the acceptance of the organization's values (Allen & Meyer, 1990); and is tied to the concept of psychological contract (Rousseau, 1989). Meyer and Allen (1997) further stated that OC reflects three broad themes: an affective orientation to the organization (affective commitment), a recognition of costs associated with leaving the organization (continuance commitment), and a moral obligation to remain with the organization (normative commitment); and each is influenced by different factors, including PCB and PCV. OC is a more stable attitude than JS and may be more effective in measuring employees' attitudes toward their work environment (Boes, 2006), because a violation may signal to an employee that the organization does not care for his or her well-being, and the employee might perceive lessened organizational support (Boes, 2006); thus, the second hypotheses regarding the relationship between PCB and PCV and OC follow:

Hypothesis 2a. There is an inverse correlation between M&A survivors' perception of psychological contract breach and organizational commitment.

Hypothesis 2b. There is an inverse correlation between M&A survivors' perception of psychological contract violation and organizational commitment.

Psychological Contract and Turnover Intention

According to Guchait (2007), behavioral intentions (intention to leave) are the most immediate determinant of actual behavior. High turnover rates incur significant costs in organizations through

reduced productivity, lost sales, unstable corporate image, and tarnished reputation (Singh, 1999). Several studies confirm that OC is negatively related to TI (Guchait, 2007). Due to the relevance of these concepts, the study explored the relationship between PCB and PCV and TI; thus, the following hypotheses were formulated:

Hypothesis 3a. There is a direct correlation between M&A survivors' perception of psychological contract breach and turnover intention.

Hypothesis 3b. There is a direct correlation between M&A survivors' perception of psychological contract violation and turnover intention.

The Moderating Effect of a Credible Explanation

According to Agee (2000), when an organization fails to fulfill the terms of its psychological contract, there is the possibility that it will not be held solely accountable for the breach. A moderator such as a credible explanation justifying the employers' actions may mitigate employee attitudes. A credible explanation (CE) is a strategy for reducing the experience of violation that targets both the actual losses incurred as well as the perception of these losses, a justification for the actions taken (Rousseau, 1995). Even when promises are made in good faith, a changing in the internal or external environment or an unanticipated decrease in the availability of resources may preclude the organization from keeping them (Morrison & Robinson, 1997). The idea of a CE such as an economic crisis might reduce the perception of violation if it serves as a justification for the employers' actions. In this respect, rather than seeing the M&A as a breach or violation of the psychological contract, it might give the perception of being inevitable due to economic constraints (Sronce & McKinley, 2006), helping to reduce its negative effect on employee's attitudes. This concept led to formulating the following hypotheses:

Hypothesis 4a. The perception of the economic crisis as a credible explanation for employers' merger decision reduces the perception of psychological contract breach and its effects on M&A survivors' attitudes.

Hypothesis 4b. The perception of the economic crisis as a credible explanation for employers' merger decision reduces the perception of psychological contract violation and its effects on M&A survivors' attitudes.

Method

Sample and Procedure

Participants of this study were managerial and non-managerial employees from two pharmaceuticals with similar products, operating in Puerto Rico, and were selected by availability. All of them were survivors of M&A. A convenience sample ($n = 196$) participated. Employees were informed of the goals of the study and were invited to participate. Respondents' identification information and the two company names (represented as F1 and F2) were held confidentially. The researcher distributed 210 measurement instruments to employees (105 to each plant). Employees answered 201, but five were eliminated due to missing data; thus, 196 (93.3% response rate) were used for analysis. The sample was comprised of 59% males, with 41% between 31 and 40 years old. In both plants, the majority of employees were full-time and had a permanent contract. In both plants, the majority of respondents did not supervise other employees.

In F1, 54.9% of total respondents were female and 45.1% were male. In F2, 27.6% of total respondents were female and 72.4% were male (p -value $< .01$). In F1, a ratio of six of each ten employees lies on the range of 40 years old or younger. A little more than half of them are married, and eight of each 10 have obtained at least an associate degree education. The profile of employees from F2 shows that half of employees are 40 years old or younger; six of each 10 are married; and 7 of each 10 possess at least an associate degree education.

Respondents' results in terms of employment characteristics are as follows. There is statistical significant difference between the times employees are working for their respective companies. In F1, nearly 35 % of employees have been working for the firm between 6 and 10 years, while in F2 only 6% fall in the same time range. The

other ranges of years present similar results, with a p -value $< .01$. In both plants, the majority of employees is fulltime and has a permanent contract. In both plants, the majority of respondents do not supervise other employees. The employees who answered that they have supervisory responsibilities include both non-managerial (line) employees and managerial employees; however, there is a statistically significant difference between the two plants regarding the managerial and non-managerial positions of the employees, where $p < .05$. Five percent of F1 employees have managerial positions compared to 18% in F2. There is also a significant difference on annual salary between the two plants. F1 has more employees with salaries under \$20,000 than F2, nearly 29% compared to only 8%. F1 has fewer employees with annual salaries over \$50,000 than F2, 14% compared to nearly 25% (p -value $< .01$). The estimated average annual salary is \$32,857 in F1 and \$37,602 in F2.

Research Design

The methodology used in this research is a non-experimental, cross-sectional correlation study, which refers to a statistical test to establish patterns for two variables (Creswell, 2002, 2003; Schwab, 2004). The independent variables of this study are PCB and PCV as experienced by survivors of M&A within the pharmaceutical industry in Puerto Rico. The moderating variable is the credible explanation of an economic crisis as a justification for the merger decision. The dependent variables are job satisfaction, organizational commitment, and turnover intention.

The data collection consisted of survey research with quantitative responses. For measuring the variables under study, six previously developed and validated instruments were used, with permission granted by their authors. All used a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). An academic expert certified the correct translation of the instrument items from English to Spanish. PCB was measured using Robinson and Morrison's (2000) 5-item instrument. PCV was measured using Robinson and Morrison's 4-item instrument. CE was measured using a

4-item scale comprising a shortened version of Robinson and Morrison’s scale for causal attribution, specifically the two items that measure the disruption. Two new items were designed for this study including: “I understand that the economic crisis hindered my employer from fulfilling his promise.” JS was measured using part of Hackman and Oldham’s (1980) Job Diagnostic Survey; a 5-item measure focused on “general satisfaction.” OC was assessed using Meyer, Allen, and Smith’s (1993) 18-item scale (revised version) that measures the three components of OC: affective, continuance, and normative commitment, with 6 items for each. This scale has been previously translated and used in other empirical researches that validate it (e.g., Cedeño & Pirela, 2002, with a reliability coefficient of .8002). Finally, TI was assessed using a combined version of Wayne, Shore, and Liden’s (1997) 5-item scale and Lum, Kervin, Clark, Reid, and Sirola’s (1998) 3-item scale.

Results

Data Analysis

Statistical analyses were performed to verify the properties of the measures. Table 1 shows the mean and standard deviation of each variable under study. To determine whether there were statistically significant differences between the two plants, *p*-values are also included.

Table 1

Aggregate Means of Variables Under Study, by Company

Variable	F1			F2			p-value
	N	Mean	S.D.	N	Mean	S.D.	
Job satisfaction	94	5.56	1.00	102	5.90	0.90	<.05
Organizational commitment	94	4.57	1.79	102	5.11	0.88	N.S
Turnover intention	92	4.12	1.17	102	2.18	1.29	<.05
Credible explanation	91	4.59	1.52	102	4.45	1.51	N.S
Psychological contract breach	90	2.71	1.29	101	2.92	1.36	N.S
Psychological contract violation	90	2.24	1.47	101	1.84	1.25	<.05

Source: Own elaboration.

Cronbach's alphas were used to evaluate construct reliability. Table 2 presents the values of Cronbach's alphas for the variables. Overall, the results showed adequate levels of reliability.

Table 2

<i>Cronbach's Alpha</i>		
Instrument scale	Items	Cronbach's alpha
Job satisfaction (JS)	1-5	0.593
Organizational commitment (OC)	6-23	0.822
Turnover intention (TI)	24-31	0.829
Credible explanation (CE)	32-35	0.790
Psychological contract breach (PCB)	36-40	0.808
Psychological contract violation (PCV)	41-44	0.879
Total	1-44	0.643

Source: Own elaboration.

The study applied statistical tools for the construction of a structural model to confirm the model and to test Hypothesis 4. They involve the use of confirmatory factor analysis to develop an acceptable measurement model. Overall, the results showed adequate levels of acceptance.

Testing of Hypotheses

Table 3 displays the results of the correlation analyses to test the hypotheses. Hypothesis 1 anticipated an inverse relation between PCB and JS, and between PCV and JS. Hypothesis 2 posited an inverse relation between PCB and PCV with OC. Hypothesis 3 predicted a direct relation between PCB and PCV with TI. As anticipated, overall, the hypotheses were supported.

Table 3

Aggregate Correlation Coefficients Between Variables for the Total Sample

	Aggregate values		
	Psychological contract breach	Psychological contract violation	Credible explanation
Job satisfaction	-0.348**	-0.353**	0.261**
Organizational commitment	-0.391**	-0.383**	0.486**
Turnover intention	0.129 ^{N.S.}	0.369**	-0.044 ^{N.S.}

Note. Significant levels: **p-value* < 0.05, two-tailed. ***p-value* < 0.01, two-tailed.

N.S. = No statistical significance.

Source: Own elaboration.

The present study applied advanced statistical tools for the construction of a structural model in order to test Hypothesis 4 through mediation analysis. They involve the use of confirmatory factor analysis to develop an acceptable measurement model. The test of a measurement model allows the researcher to assess whether observed variables are really measuring the underlying theoretical constructs, and whether the measurement model provides evidence of an acceptable fit to the sample data. Structural Equation Modeling (SEM) with Analysis of Moment Structures (AMOS) performed those specialized tests. SEM is a statistical methodology that takes a confirmatory (i.e., hypothesis testing) approach to the analysis of a structural theory bearing on some phenomenon (Byrne, 2010; p. 3). Typically, this theory represents causal processes that generate observations on multiple variables (Bentler, 1988, in Byrne, 2010; Pearl, 2012). Byrne (2010) explains that “if goodness-of-fit is adequate, the model argues for the plausibility of postulated relations among variables: if it is inadequate, the tenability of such relations is rejected”. Two relevant fit statistics of SEM are Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA).

Structural Equation Modeling (SEM) with Analysis of Moment Structures was applied to test hypothesis 4, which predicted that a CE such as an economic crisis would have a moderating effect on the relation between independent variables and dependent vari-

ables. First, correlations were calculated for the moderating variable CE and the two independent variables, PCB and PCV. Table 4 displays the results by plant and for the entire sample. These correlation values were calculated taking into account the aggregate results of all the items that comprise CE, PCB, and PCV.

Table 4

Correlations Between the Moderating Variable and the Independent Variables

Independent variables	CE (Moderating variable)			Interpretation
	F1	F2	Total	
PCB	-0.483**	-0.452**	-0.467**	Moderate
PCV	-0.421**	-0.286**	-0.342**	Moderate

Note. Significant levels: ** p-value < 0.01

Source: Own elaboration.

Using maximum likelihood estimation, which yields the most precise (smallest variance) estimate (Ullman, 2006), 18 indicators were selected, representing two to four indicators for each of the six latent variables. The lowest acceptable threshold for factor loading is .40 (Matsunaga, 2011) but should exceed .60 (Hair, Anderson, Tatham, & Black, 1998); thus, a factor load greater than .50 is acceptable. Table 5 depicts the correlations or factor loadings between factors (latent constructs) and their respective indicators (observed variables).

Table 5

Coefficients Between Latent Constructs and Observed Variables

Latent construct	Observed variable	Observed variable description	β
Job satisfaction	JS1	En general, estoy satisfecho(a) con mi trabajo.	.74
	JS3	En general, estoy satisfecho(a) con el tipo de trabajo que desempeño.	.70
	JS4	La mayoría de los empleados están satisfechos con su trabajo.	.56
Organizational commitment	OC2	Percibo que pertenezco a la organización.	.70
	OC7	En este momento, permanecer en la organización es un asunto de necesidad tanto como de deseo.	.64
	OC16	La organización merece mi lealtad.	.56
Turnover intention	TI2	Tan pronto tenga un mejor empleo, saldré de la organización.	.63
	TI7	En los pasados meses, he pensado seriamente en buscar trabajo en otra industria.	.88
	TI8	El próximo año, realizaré un gran esfuerzo en buscar un nuevo empleo.	.81
Credible explanation	CE1	Cuando el patrono no cumplió una promesa se debió a circunstancias fuera de su control.	.84
	CE2	En la mayoría de los casos, cuando mi organización incumplió una promesa, se debió a factores no anticipados.	.87
	CE3	La crisis económica que afectó a mi patrono, impidió que cumpliera sus promesas.	.68
Psychological contract breach	PCB4	No he recibido todo lo que el patrono prometió a cambio de mis contribuciones.	.66
	PCB5	El patrono ha roto muchas de sus promesas, aun cuando he mantenido mi parte del trato.	.93
Psychological contract violation	PCV1	Me siento muy frustrado(a) por el trato recibido por la organización.	.81
	PCV2	Me siento traicionado(a) por la organización.	.85
	PCV3	Siento una gran ira hacia mi organización.	.79
	PCV4	Percibo que la organización ha violado el contrato entre ambos.	.81

Note. β = Factor loadings between latent constructs and observed variables. Factor loadings should exceed .60. Factor loadings > .50 are acceptable.

Source: Own elaboration.

SEM builds the model structurally and incorporates more variables into the equation to determine whether there was a moderating effect on dependent variables. Overall, the results showed adequate levels of acceptance (CFI = .914, TLI = .880, RMSEA = .070). Figure 1 shows the entire Structural Equation Model of the variables under study.

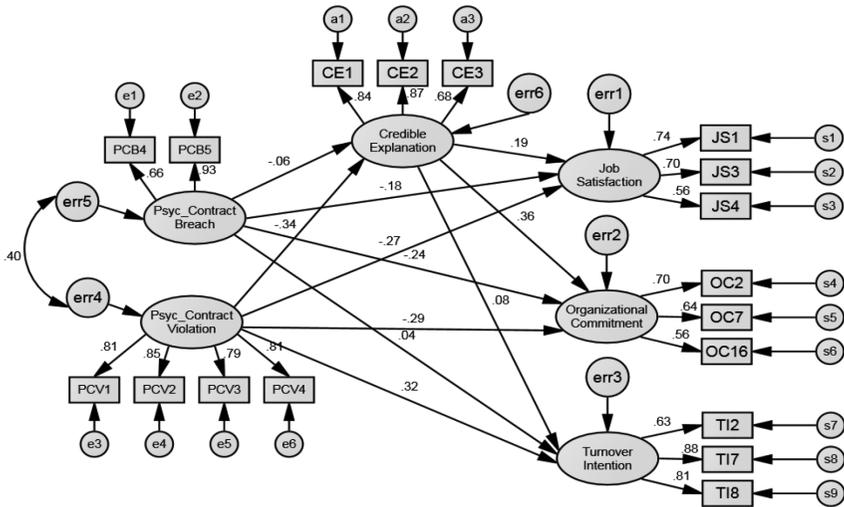


Figure 1. Final Structural Model framework.

Table 6 depicts the decomposition of structural effects. It summarizes the values of direct effects of the independent variables PCB and PCV and their indirect effects through the moderating variable CE upon the dependent variables JS, OC, and TI, and the total effects.

Table 6

Standardized Structural Effects for the Entire Model

Effect of	Effect on								
	JS			OC			TI		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
PCB	-.175	-0.014	-.186	-.244	-0.021	-.265	.042	-0.004	.037
PCV	-.272	-0.065	-.337	-.287	-.122	-.409	.325	-0.025	.299
CE	.194	.000	.194	.363	.000	.363	.076	.000	.076

Source: Own elaboration.

There is a total, negative effect of PCV on JS and of PCV on OC. There is a direct effect of PCV on TI. The moderating variable CE reduces the total effect of PCV on TI, though its effect is weak. The total effect of PCB on JS and OC is important, but the total effect of PCB on TI is weak. SEM Analysis confirms hypotheses 1 and 2, as previously demonstrated by correlation analysis.

Discussion

The present research empirically assessed whether organizational change adversely affects employees' psychological contract. Findings confirmed that an inverse relationship exists between both perceived PCB and PCV and JS and OC, as well as a direct relationship between perceptions of PCV and TI. SEM confirmed the proposed conceptual model, revealing goodness of fit among the variables under study.

Perceived breach and violation of the psychological contract reduce JS. There was a stronger inverse correlation between PCB and JS in F2 than in F1. Communication between employers and survivors of major organizational change, like M&A, may help employees to understand, interpret, and make sense of events. Accordingly, if employers dedicate time to communicate the reasons for the merger decision, this CE reduces the effect of the perceived PCV on employees' attitudes. In F1, the organization's agents clearly informed employees of their new plans. According to the responses to the CE indicator, it appears that the lack of effective communication in F2 resulted in employees in F2 showing a stronger inverse correlation between PCV and JS. Communication dedicated to explaining organizational change helped employees to make sense of the changes, as posited by sense-making theory proponents (Weick, 1995). This supports the effect of the moderating variable on employees' attitudes. Accordingly, when analyzing the SEM results of indirect effect of PCV on JS through CE, separately by pharmaceutical, the effect of the moderating variable was diminished in F2, with a value of $-.012$ compared to $-.123$ in F1; consequently, a CE impacts employee attitudes, reducing the effect of PCV on JS. These findings

coincide with previous empirical research on PCV and JS, showing an inverse relationship between these variables (Kraft, 2008).

The effect of PCB and PCV on OC showed an inverse correlation for the entire sample, confirming perceived PCB reduced employee's commitment toward the organization in diverse cultural settings, among different types of employees, from various business sectors (Chiang, Liao, Jiang, & Klein, 2012; Freese, Schalk, & Croon, 2011; Robinson & Morrison, 1995). In F2, the correlation between PCB and OC was moderately significant, having a stronger inverse correlation than in F1. The effect of the moderating variable CE, which was lower than in F1, might explain this difference.

The aggregate value for the entire sample shows a positive, yet non-significant correlation between PCB and TI, but significant between PCV and TI. Findings coincide with previous researchers who revealed that a perceived PCV can increase M&A survivors' TI. In F2, the correlation between the perceived PCV and TI was significant. This indicates that perceived PCV has a strong direct relationship with employees' intention to leave the organization and that in multi-faceted employer-employee relations, and within diverse employment characteristics, a PCV significantly increases employees' TI; however, no correlation existed between PCV and TI in F1 (correlation coefficient = .099). In comparing some elements of employment characteristics of F1 and F2, there were significant differences between both plants. T1 had fewer employees working between 11 and 20 years (41.3%), annual salaries exceeding \$50,000 (14.3%) and a smaller percentage of managers (5.7%), compared to T2 (67.3%, 24.5%, and 18.1% respectively, $p < .05$). Inferences can be drawn from these differences regarding employment attitude toward TI when experiencing PCV; thus, TI may be affected by tenure, position, and compensation.

Hypothesis 4 tested whether the perception of economic crisis as a CE for employers' merger decision reduced the perception of PCV and its effects on M&A survivors' attitudes. The CE of an economic crisis was the moderating variable, and the total effects analysis confirmed the predicted inverse correlation between the perception of PCB and PCV on JS and OC as well as supporting the

direct effect of PCV on TI. Although PCB had no important effect on TI, it shows an indirect negative effect, which means that the moderating variable might have the tendency to change the direction of the effect of PCB on TI.

One possible limitation of this study was the use of a self-report questionnaire. Several related empirical studies in diverse contexts, however, have validated the measurement instruments used. A second limitation of this study was the mono-method bias, frequently attributed to the utilization of a common method for data collection, such as self-report questionnaires with Likert-type scales. Spector (2006) argued that little scientific data unequivocally supports this view, and there are data to refute it. The inclusion of reverse-scored items in most of the constructs attenuated this threat to validity and contributed to validating the consistency of participants' responses to similar questions. A third limitation may be due to using a convenience sample. All participants, however, met the characteristics of the sample under study; survivors of M&A within the pharmaceutical sector in Puerto Rico and every employee willing to participate had the same opportunity to do so.

Organizational change is inevitable in fast-pacing globalized business environments and forces companies to find effective and adequate strategies to adapt to them. Understanding employees' attitudes and behavior patterns is an essential role of strategic and global human resources management in pursuit of organizational performance. An effective integration of all business activities through an adequate alignment of all organization stakeholders' interests, including attention to human capital and its dynamic psychological contract is of utmost relevance in every employment relationship, especially in the context of organizational change.

Employment relations are moving to transactional, short-term contract agreements with fewer benefits and less job security for employees; measure that represent savings for the company (i.e. Maguire, 2003). Labor-related legal aspects of this tendency should be a source of consideration, as well as the emotional effects on employees' performance, since that modality may lead to the death of employment permanency and its attendant side effects.

Future research on PCV after a merger should investigate the impact of such organizational change on basic conditions of employment, such as pay, working hours, job opportunities, development opportunities, job demands, new boss, new skills, retraining, and relocation; identifying the practical direct impact of M&A on employees. Based on the findings, tenure, position, and compensation seemed to have an impact on employees' TI, and could be a subject for future research. The effect of PCB and PCV should be studied and measured in the public sector. In government, a major organizational change occurs every four years after elections. This implies a never-ending sense of uncertainty and adaptation to a new psychological contract. Further research contributing to better management of change and improved employee attitudes is called for. In summary, this study is a useful tool to guide future research considering other factors, moderating variables, and labor sectors to enrich the literature on psychological contract perspectives and to better understand the effects of organizational change.

Conclusion

Changes are inherent to any type of organizations in the present fast-paced globalized business environments. Their inevitability forces companies to find effective and adequate strategies to adapt to them considering all parts involved. Psychological contract theory is a relevant conceptual framework to study and analyze employees' reaction to organizational change. An appropriate and successful way to manage and deal with employees' reaction to major organizational change is to understand the implied and unwritten agreement comprised in employees' psychological contract. As confirmed in this study and in prior research, the psychological contract conceptual framework is a useful theory to assess the effect of M&A on employees' attitudes, such as JS, organizational commitment, and turnover intention. Employees' reaction to organizational change deserves attention from both the academia and practitioners in managerial positions, in order to comprehend the

inner dynamics caused by such changes and that inevitable affect organizational performance.

Psychological contract theory contributes to the field by providing explanation of the effect of psychological contract breach and violation upon employees' outcome. The present study expanded the scope of previous research by including the assessment of the impact of a moderating variable such as a credible explanation to justify employers' merger decisions on employees' perceived PCV. Beyond the direct effect of PCV on survivors' attitudes, there is opportunity for further examination of other indirect effects, which may be equally relevant to the study of organizational behavior. Those yet unidentified factors may comprise mediating components of the so-called "black box," which, according to Burke and Cooper (2006) consist of human capital, behaviors, organizational culture, organizational climate, attribution focus, and social exchange, among others, and relate to the linkage between Human Resources practices and organizational performance. Understanding employees' attitudes and behaviors patterns is an essential role of strategic and global human resources management in pursue of organizational performance. An effective integration of all business activities through an adequate alignment of all organization stakeholders' interests, including the attention to the human capital and their dynamic psychological contract is of utmost relevance in every employment relationship as well as in the context of major organizational change.

References

- Agee, J. E., (2000). *Understanding psychological contract breach: An examination of its direct, indirect, and moderated effects* (Doctoral dissertation). Available from ProQuest Dissertation & Theses Global. (UMI No. 9977596)
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63, 1-18.
- Baker, H. G. (1985). The unwritten contract: Job perceptions. *Personnel Journal*, 64(7), 37-41.
- Baruch, Y., & Hind, P. (2000). The survivor syndrome: A management myth? *Journal of Managerial Psychology*, 15, 29-41.
- Boes, K. T. (2006). *Psychological contract violation and organizational change in Thailand* (Doctoral dissertation). Available from ProQuest Dissertation & Theses Global. (UMI No. 3235874)
- Buono, A. F., & Bowditch J. L. (2003). *The human side of mergers and acquisitions: Managing collisions people, cultures, and organizations*. Washington, DC: BeardBooks.
- Burke, R. J., & Cooper, C. L. (Eds.). (2006). *Reinventing HRM: Challenges and new directions*. New York, NY: Routledge.
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. New York, NY: Routledge Taylor and Francis Group.
- Cedeño, A., & Pirela, F. (2002). *Relación entre compromiso organizacional y calidad de servicio en empresas en proceso de fusión* (Master thesis). Retrieved from <http://www.proquest.com/products-services/pqdtglobal.html>
- Chiang, J. J., Liao, C., Jiang, J. J., & Klein, G. (2012). Consequences of psychological contract violations for IS personnel. *Journal of Computer Information Systems*, 52(4), 78-87.
- Cho, B. (2004). *Employees' reactions to a merger and acquisition: A social identity perspective*. Available from Dissertation Abstracts International: A64 (11), 4116. (Publication No. AAT 3113482)
- Condrat, M., & Boboia, A. (2012). *Mergers and acquisitions as strategies of business expansion in the pharmaceutical industry*. Proceed-

- ings of the 8th Pharmacy Academic Conference. Retrieved from http://recipp.ipp.pt/bitstream/10400.22/1258/1/COM_MariaCondrat_2012.pdf
- Coyle-Shapiro, J., & Conway, N. (2005). Exchange relationships: Examining psychological contracts and perceived organizational support. *Journal of Applied Psychology, 90*, 774-781.
- Creswell, J. (2002). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Merrill Prentice Hall.
- Creswell, J. (2003). *Research design: Qualitative, quantitative and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: SAGE Publications.
- Ferrer, R. C. (2012). An empirical investigation of the effects of merger and acquisition on firms' profitability. *Academy of Accounting and Financial Studies Journal, 16*(3), 31-55.
- Freese, C., Schalk, R., & Croon, M. A. (2011). The impact of organizational changes on psychological contracts: A longitudinal study. *Personnel Review, 40*, 404-422.
- Guchait, P. (2007). *Human resource management practices and organizational commitment and intention to leave: The mediating role or perceived organizational support and psychological contracts* (Master thesis). Retrieved from <http://www.proquest.com/products-services/pqdtglobal.html>
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison-Wesley.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. (1998). *Multivariate Data Analysis* (5th ed.). Upper Saddle River, NJ: Prentice Hall.
- Kraft, J. M. (2008). *Psychological contracts and organizational commitment profiles: Effects of contract fulfillment and violation on employee outcomes* (Master thesis). Retrieved from <http://www.proquest.com/products-services/pqdtglobal.html>
- Locke, E. A. (1976). The nature and causes of job satisfaction. *Handbook of Industrial and Organizational Psychology, 1*, 1297-1343.
- Lum, L., Kervin, J., Clark, K., Reid, F., & Sirola, W. (1998). Explaining nursing turnover intent: Job satisfaction, pay satisfaction,

- or organizational commitment? *Journal of Organizational Behavior*, 19, 305-320.
- MacNeil, I. R. (1980). *The new social contract: An inquiry into modern contractual relations*. New Haven, CT: Yale University Press.
- Maguire, H. (2003). The changing psychological contract: Challenges and implications for HRM, organizations and employees. In R. Wiesener & B. Millett (Eds.), *Human resource management: Challenges and future directions* (pp. 87-103), Queensland, Australia: John Wiley & Sons.
- Martin, C., & Bennett, N. (1996). The role of justice judgments in explaining the relationship between job satisfaction and organizational commitment. *Group and Organization Management*, 21, 84-104.
- Matsunaga, M. (2011). How to factor-analyze your data right: Do's, don'ts, and how-to's. *International Journal of Psychological Research*, 3(1), 97-110.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage.
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78, 538-551.
- Morrison, E. W., & Robinson, S. L. (1997). When employees feel betrayed: A model of how psychological contract violation develops. *Academy of Management Review*, 22, 226-256.
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14, 224-247.
- Pavlou, P. A., & Gefen, D. (2005). Psychological contract violation in online marketplaces: Antecedents, consequences, and moderating role. *Information Systems Research*, 16, 372-399.
- Pearl, J. (2012). The causal foundations of structural equation modeling. In R. H. Hoyle (Ed.), *Handbook of Structural Equation Modeling* (pp. 68-91). New York, NY: Guildford Press.

- Pharmaceutical Industry Association of Puerto Rico. (2013). Retrieved from [http://www.piapr.org/index.php?submenu=Board of Directors&src=gendocs&ref=Board % 20 of % 20 Directors&category=Aboutus](http://www.piapr.org/index.php?submenu=Board%20of%20Directors&src=gendocs&ref=Board%20of%20Directors&category=Aboutus)
- Robinson, S. L., & Morrison, E. W. (1995). Psychological contracts and OCB: The effect of unfulfilled obligations on civic virtue behavior. *Journal of Organizational Behavior, 16*, 289-298.
- Robinson, S. L., & Morrison, E. W. (2000). The development of psychological contract breach and violation: A longitudinal study. *Journal of Organizational Behavior, 21*, 525-546.
- Robinson, S. L., & Rousseau, D. M. (1994). Violating the psychological contract: Not the exception but the norm. *Journal of Organizational Behavior, 15*, 245-259.
- Rousseau, D. M. (1989). Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal, 2*, 121-139.
- Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Thousand Oaks, CA: Sage.
- Rousseau, D. M., & Tijoriwala, S. A. (1998). Assessing psychological contracts: Issues, alternatives and measures. *Journal of Organizational Behavior, 19*, 679-695.
- Schwab, D. P. (2004). *Research methods for organizational studies* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Spector, P. E. (2006). Method variance in organizational research: Truth or urban legend? *Organizational Research Methods, 9*, 221-232.
- Singh, D. (1999). *Attitude toward an acquisition and organizational commitment, and intention to quit* (Doctoral dissertation). Available from ProQuest Dissertation & Theses Global. (UMI No. 1397748)
- Sronce, R., & McKinley, W. (2006). Perceptions of organizational downsizing. *Journal of Leadership and Organizational Studies, 12*(4), 89-108.
- Udo, G. J., Guimaraes, T., & Igbaria, M. (1997). An investigation of the antecedents of turnover intention for manufacturing

- plant managers. *International Journal of Operations and Production Management*, 17, 912-930.
- Ullman, J. B. (2006). Structural equation modeling: Reviewing the basics and moving forward. *Journal of Personality Assessment*, 87(1), 35-50.
- Wayne, S. J., Shore, L. M., & Liden, R. C. (1997). Perceived organizational support and leader-member exchange: A social exchange perspective. *Academy of Management Journal*, 40, 82-111.
- Weber, Y., Tarba, S., & Öerg, C. (2013). *A comprehensive guide to mergers & acquisitions: Managing the critical success factors across every stage of the M&A process*. Upper Saddle River, NJ: FT Press.
- Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.