A turnover perception model of the general working population in the Mexican cross-border assembly (maquiladora) industry

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Abstract

In this study, we analyze the correlation between employee turnover vs. employee profile and employee perceptions to motivation, leadership, opportunities, remuneration, adaptability and equity. The purpose of this study was to determine if the variables have a significant influence in the employee's intention to leave the company. A 57-question questionnaire with Likert-type scale was used for collecting data in this study which was applied in 16 assembly companies in Ensenada, Baja California, Mexico. Data were collected on a total of 857 employees of 16 different companies in Ensenada. The research revealed a significant influence between the variables of job perception and leadership style with employee turnover. The main findings in this research reveal that turnover as perceived by the employees is directly related to fairness (equity) in the application of leadership, adaptability and relations. Even thought employee profile had a negative correlation, age and gender have a significant influence in turnover. Further subjects for future research exist as well.

Key words: job turnover, the city of Ensenada, Mexico, employee turnover model, cross-border assembly industry (in this case, foreign assembly-plant industry outside the USA)

Un modelo de percepción del turno de las empresas maquiladoras en México

Nous analyisons dans cette étude la corrélation entre le turnover, d'une part, et le profil de l'employé et ses perceptions sur les relations, le leadership, les opportunités, la rémunération, l'adaptabilité et l'équité, d'autre part. L'objectif de cette étude est de déterminer si ces variables ont une influence significative sur l'intention de l'employé de quitter l'entreprise. Nous avons utilisé comme outil pour la collecte de l'information un questionnaire comportant 57 questions à échelle type Likert, lequel a été proposé à une population de 857 employés appartenant à 16 entreprises différentes d’Ensenada, Mexique. La recherche a révélé que les variables de perception sur le travail et sur l'exercice du leadership ont une influence significative sur le turnover. En particulier, la recherche a révélé que les travailleurs perçoivent le turnover comme un résultat direct de la justice (équité) dans l'exercice du leadership, l'adaptabilité et les relations. La corrélation à partir du profil de l'employé a été négative, mais l'âge et le sexe ont eu un impact significatif sur le turnover. L'étude suggère d'autres aspects pour des recherches futures.

Mots clé: turnover; Ensenada, Mexico; modelo de turno; empresas maquiladoras.

Un modelo de percepción de la rotación laboral en la población de trabajadores de la industria maquiladora mexicana

Neste estudo, analisamos a correlação entre a rotatividade no trabalho versus o perfil do empregado e suas percepções sobre relações, liderança, oportunidades, remuneração, adaptaibilidade e equidade. O propósito deste estudo foi determinar se estas variáveis representavam uma influência significativa sobre a intenção do empregado de abandonar a empresa. O instrumento empregado na coleta de informação foi um questionário de 57 perguntas com escala tipo Likert. A informação foi obtida de um total de 857 empregados, entrevistados em 16 diferentes companhias de Ensenada, México. A investigação revelou que as variáveis sobre o trabalho e sobre o exercício da liderança têm uma influência significativa na rotatividade no trabalho. As principais descobertas desta investigação revelaram que os trabalhadores pensam na rotatividade como um resultado direto da justiça (equidade) no exercício da liderança, da adaptaibilidade e das relações. Apesar de que o perfil do empregado emitiu uma correlação negativa, a idade e o sexo tiveram um impacto significativo na rotatividade. O estudo sugere outros aspectos para futuras investigações.

Palavras-chave: rotatividade no trabalho, Ensenada, México, modelo de rotatividade no trabalho, indústria maquiladora.

Clasificación JEL: M12, M54, M52

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Introduction

Little research is available regarding turnover and human resource management in the maquiladora (cross-border assembly) industry. Academic researchers have not analysed this problem from the workers’ point of view. Various models designed to analyse human resource management have been developed for explaining reasons behind turnover. These models have been widely accepted in the USA but applying them in other countries is under speculation (March & Simon, 1958).

There is no appropriate turnover model for maquiladora countries outside the USA and its absence is clearly manifested by the lack of knowledge in applying a suitable turnover model. Arrioja (1993) partially proved that these foreign models could be used in maquiladora countries, even though, his research was very limited and more than 10 years have passed since he validated his hypothesis. Other modern researchers, such as Peña (2000), have stated that conditions in the maquiladora industry are different, which has led to the emergence of new hypotheses refuting the old ones.

English, Williams & Ibarreche (1989) found that Mexican workers perceive personal and working conditions in a very different way than US workers do. McEvoy & Cascio (1985) have mentioned more than 1,000 publications on turnover and Rosse (1991) has mentioned 2,000 articles concerning turnover.

Arrioja states that up to the middle of the 1960s, most research found regarding turnover was bivariated, emphasising the relationship between job satisfaction and turnover (Rosse, 1991). Porter and Steers’ (1974) article reviews previous research and classifies factors related to turnover. Porter has mentioned the organisational factors regarding job setting, job content and personal matters as being the main causes for turnover (Arrioja, 1993). Other researchers like English, Williams & Ibarreche (1989, p. 89) have found a strong relationship between personality variables and job continuation and point out that Mexican workers perceive personal variables and job ambience in a very different way to US workers (Carrillo & Santibáñez, 2001).

English, Williams & Ibarreche (1989, p. 72) mention that even though turnover rates are high, maquiladora companies have done very little about it as their jobs are simple and there is no lack of available labour. Rodriguez (1988) has also pointed out that turnover does not affect these companies’ productivity due to the abundant labour available searching for jobs (Carrillo & Santibáñez, 2000).

Carrillo & Santibáñez (2001) have emphasised the need for managing turnover in the maquiladora sector due to the multiple factors contributing towards an individual’s decision to leave a particular job and to the major problem to which it lead. For them, the problem of turnover is practically impossible to resolve without affecting the plants’ location and goes beyond the possibilities of managerial policy. Ahr & Ahr (2000) have mentioned that since March & Simon’s findings, researchers have focused on finding out how job availability and job dissatisfaction interact to affect turnover behaviour. Ahr & Ahr have pointed out that, in certain circumstances, the availability of different job opportunities stimulates job dissatisfaction in workers by creating expectations which are not met in the present job.

Researchers have also mentioned that some findings concerning turnover have shown that employees who leave their jobs without having a new job to go to may suggest that job dissatisfaction is more important than job availability in determining whether an employee will leave his/her job. Ahr & Ahr have also mentioned important research findings about why an employee stays in an organisation. According to them, some employees stay due to loyalty to the company (normative commitment) while others stay due to the fact that the cost of leaving their actual job is higher than what they are willing to pay (continuity commitment). Those employees presenting attitudes and habits which are more desirable to management tend to be the ones who stay because they want to do so (affective commitment) (Ahr & Ahr, 2000, pp. 33-35).

Regarding organisational practices, these represent a potential threat to efficiency and organisational effectiveness in the maquiladora industry for Kacmar, Bozeman, Carlson & Anthony (1999) due to the centralisation of power characterising this kind of company. The degree of centralisation is very high in the maquiladora industry due to the fact that most top executives having the decision-taking responsibility in their hands are foreigners.
When organisational practice affects decision-making, the resulting decisions can be unfavourable if a single person takes such decisions, which is unlikely when more objective and functional decision-making is resorted to (Kacmar et al.).

Such moderating influence determines the degree to which an individual perceives organisational practices as being an opportunity or a threat. When perception of these is high and understanding is low, then organisational practices are generally seen as a threat, which can cause negative feedback such as anxiety and a greater turnover index. Also, when perception of these is high and understanding is also high, organisational practices will be perceived as being an opportunity and the reactions will be less negative. How a worker perceives applying organisational practices is influenced by personal factors and the surroundings, which also affect an individual’s reaction towards the organisation which causes resentment, anxiety or commitment and satisfaction. According to Kacmar, the perception of organisational practices is affected by activities such as favouritism, suppression of organisation competition and manipulation of internal policy, according to how an individual perceives them (Kacmar et al.).

Workers in a particular plant in the maquiladora industry do not perceive organisational policy as being just and its application as being impartial, which is why interchange between supervisors and workers does not invite respect where an individual may become involved in organisational decision-making and perceive that opportunities, forms of remuneration and relationships occur in an atmosphere of impartiality.

Some research has been done on the assembly plant industry approaching several problems such as managerial aspects, labour, recruitment, training, wages and benefits. Nevertheless, research is needed which analyses the effects of external organisational and demographic factors on managing human resources in the assembly plant industry since this is related to efficiency, effectiveness and quality. A lack of knowledge of Mexican culture, its labour, its laws and the prevailing business atmosphere could disturb the advantages of low cost labour when additional expense is required on recruitment, selection and training, as well as in lost productivity whenever an experienced worker leaves the company (Cascio, 1991).

The voluntary exit of a worker from a company is understood as personnel turnover. Turnover in the assembly plant industry says much about assembly plant workers’ voluntary need for change to go to another economic sector or to engage in non-economic activities (Carrillo & Santibáñez, 2001).

Job satisfaction plays a very important role in a worker’s decision to remain in an organisation for Cotton and Tuttle, whereas tasks and work contentment are of greater importance for Porter and Steers.

**Methods**

**Sample characteristics**

The data used in the present study was collected as part of PhD research focusing on turnover. The questionnaire was applied to 857 employees from 16 different companies in the maquiladora industry in Ensenada. The correlative quantitative study analysed the relationship between employee turnover and employee profile and employee perceptions of leadership, opportunities, adaptability, remuneration and equity. This study was aimed at determining whether the variables had a significant influence on employees’ intention to quit. A 57-question questionnaire with Likert-type scale was used for collecting data in this study. Study participants were employed at the 16 different companies as general workers, performing different activities such as assembly, manufacturing or manual jobs assigned by the plant manager. An employee survey was used for collecting information on key study variables, relationships and demographics. Employees were asked to fill out the questionnaire anonymously to protect their jobs from supervisor retaliation if their answers were negative towards a particular supervisor’s performance. The general manager gave consent for the survey to be filled out during the employees’ working hours. 1,200 surveys were distributed and 887 were returned; 30 of these surveys could not be used owing to either the employees’ missing answers or confused replies.

There were no differences between usable and unusable survey groups regarding tenure, gender, race or education. Human resource personnel helped to apply the survey. 45% of the 857 respondents were men, average age being 21.43. 54.5% were locals from Ensenada.

The following methodology was used for this research:


**Measurements**

**Predictor variables.** Two survey formats were used: (1) Likert-type scales ranging from 1, "strongly disagree" to 10 "strongly agree" and (2) demographic questions. Employees self-reported data on all variables except for organisation characteristics for which human resource personnel provided data.

**Control variables.** Organisational characteristics and demographics were controlled as both have been found to correlate with turnover (Griffeth et al., 2000). Gender was coded as "male" 0 and “female” 1.

The questionnaire with Likert-type scale was the measuring instrument used and applied to the 16 companies which participated from the 31 companies in the sample.

**Control variables**

**Relationships.** Good relationships are shown when there are positive interactions with companions and a low turnover rate (Cotton & Tuttle, 1986). The degree of support which a new employee receives (or does not receive) from experienced workers is associated with his commitment towards the organisation (Allen & Meyer, 1990). Employee perception of socialisation is positively related to his/her commitment to an organisation (Ashford, Lee & Bobko, 1989).

**Equity.** Perceiving fairness is a critical prerequisite for employee satisfaction and organisational commitment. The category of fairness represents the general importance placed on perceiving justice applied in the work that employees have and the recognition that they give to it as far as how money, opportunities, relationships, adaptability and leadership are handled there.

The perception of fairness regarding organisational policies and employee treatment promote organisational commitment to a greater degree than personal entrance (Folger & Konovsky, 1989).

**Adaptability.** In an atmosphere where change is the only constant, employees and organisations must be flexible, adaptable and able to tolerate differences; they must be able to tolerate ambiguity and uncertainty. An employee must be able to successfully accept differences and handle reactions to change. It is good for an organisation that these abilities are fomented between its employees. Stress in the job predicts turnover (Hom & Griffeth, 1995).

Employee ability to control role conflict (for example, husband, father, employee) is important to be able to successfully perform her/his tasks (Hom & Griffeth, 1995).

A realistic image of the job reduces turnover when it reflects the negative and positive features of the job and allows the candidate to adapt to the position (McEvoy & Cascio, 1985).

Differences with heterogeneous groups at work make an employee quit faster. (O’Reilly, Cadwell & Barnett,
Demographic variability at the job speeds up turnover (Jackson, et al. 1991).

Leadership. Good organisations are distinguished for having outstanding leaders in the higher positions. Leaders bring their personal vision and their values to an organisation, which promote and support behaviour and performance standards and lead activities.

Employees who perceive interdependence with their superiors and subordinates (leader-member exchange) reinforce affective commitment to the organisation and extend the position’s importance (Dansereau, Graen & Haga, 1975).

Poor leader-member exchange promotes turnover (Graen & Scandura, 1986). Leaders who express consideration for their employees promote affective commitment to an organisation.

Age. Carrillo & Santibáñez have stated that age is a conditioning variable for turnover. There is more tendency to leave a job at a younger age (Graen & Scandura, 1986).

Gender. Research by Peña in Chihuahua’s maquiladora industry found that immigrant women stayed longer in their jobs than men (Peña, 1994).

Analysis

Data was analysed using the SPSS program with Pearson correlations. The methods described by Carrillo & Santibáñez (2000) in their turnover research were used for the variable regarding intention to quit the job.

Results

Findings about employee demographics were as follows:

1. Most employees working in the maquiladora industry were young (ranging from 18 to 35 years old).
2. Regarding educational level, most workers had studied until the 9th grade.
3. The group that presented high-turnover represented 49.7% of the sample and the low-turnover group represented 41.7% (8.6% non-responders). Average seniority was 18 months in the job.
4. Employees who stayed longer than 18 months in the job were older than 26 and younger than 35 years old.
5. Married women represented most of the low-turnover employees.
6. Women born in Ensenada who worked in medium-sized assembly companies (30 to 100 employees) represented most of the low-turnover employees.
7. Employees who work for large companies with more than 500 employees in electronic activities represented the greatest high-turnover group.

Regarding organisational practice, the Pearson correlations obtained for such research are shown in Figure 3 below.

This study’s main finding indicated that turnover as perceived by employees was related to fairness in applying leadership to adaptability, good relationships and the employees’ demographic profile, particularly with age/gender.

<table>
<thead>
<tr>
<th></th>
<th>Equity</th>
<th>Intention to quit</th>
<th>Relationships</th>
<th>Adaptability</th>
<th>Leadership</th>
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</thead>
<tbody>
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<td>Equity</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention to quit</td>
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<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationships</td>
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<td>.525***</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>.552***</td>
<td>.206***</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
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<td>.557***</td>
<td>.397***</td>
<td>.445***</td>
<td>1.00</td>
</tr>
<tr>
<td>N</td>
<td>871</td>
<td>871</td>
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</tbody>
</table>

*** correlation significance was 0.01
Source: self investigation.
**Discussion**

Turnover literature has been dominated by research on how work attitudes (especially job satisfaction) lead to turnover. Although this line of research has contributed much to the literature, there has been increased interest in the role that less traditional variables (e.g. adaptability) play in job quitting. The present study represents an initial attempt to determine whether relational variables (specifically, employee profile, organisation characteristics, perceived leadership, adaptability, equity, remuneration and opportunities) can contribute towards this.

Both opportunities and adaptability were significantly related to turnover in this study and their effects went above and beyond the effects of salary remuneration perception. It shows clearly that how individuals perceive these variables affect their leaving or staying in the organisation.

**Research limitations**

When applying the questionnaire it was observed that the results of perception could have biased the result since it was detected that worker feared retaliation from the organisation in many cases when responding to the questionnaire (although the responses were anonymous and there were boxes for so replying). It was also observed that many workers copied their companions’ answers, or answered as a group without analysing what they replied at great length. Another problem lay in the fact that many companies refused to apply the questionnaire for fear of creating false expectations in their workers or for fear of creating a tense organisational climate. The greatest problem observed was that the only large company which allowed the questionnaire to be applied returned more than 400 answered questionnaires, its information prevailing over the rest of the sample where the questionnaire was applied.

<table>
<thead>
<tr>
<th>1. Age</th>
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<tbody>
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<td>2. Origin</td>
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<tr>
<td>3. Gender</td>
<td>.675**</td>
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<tr>
<td>4. Seniority</td>
<td>.926**</td>
</tr>
<tr>
<td>5. Civil status</td>
<td>.257**</td>
</tr>
<tr>
<td>6. Educational level</td>
<td>.214**</td>
</tr>
<tr>
<td>7. Number of jobs before this one</td>
<td>.230**</td>
</tr>
<tr>
<td>8. Plant size</td>
<td>-.268**</td>
</tr>
<tr>
<td>9. Company origin</td>
<td>.134**</td>
</tr>
<tr>
<td>10. Industrial activity</td>
<td>-.173**</td>
</tr>
</tbody>
</table>

Source: Self investigation.
References


Peña, L. (1994). Employee turnover and length of stay in the maquiladora industry of Chihuahua, Mexico. Unpublished dissertation to the Harvard Graduate School of Educa-
tion.


