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Linking procedural and interactional justice perceptions with organizational commitment through formation of perceived organizational support

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Abstract

Building on the social exchange perspective and organizational support theory, this study aims to evaluate the relationship between truck driver's procedural and interactional justice perceptions and their affective commitment to their employers. We set out a *Transactional Justice Interaction Reference Model* and refine it by scientific testing. The evidence is based on survey data collected at a truck-driving school near Frankfurt, Germany, providing update and safety classes to long-standing truck drivers in logistics and SCM. The results are derived by using structural equation modelling and indicate that perceived organizational support plays a mediating positive effect on developing organizational commitment.

Keywords: organizational justice in employer-employee relationships, truck drivers' perceived organizational support, relational contract in transportation industry

Introduction

Since 2010, the demand for freight transport in German road haulage has been rising steadily. Nevertheless, due to an acute driver shortage, German haulage companies and freight carriers often cannot profit from the constant growth of the German transport sector due to an acute lack of prospective job applicants (Schierge, 2014). At the same time, the phenomenon of occupational driver shortage is strongly interwoven with increasing changes in employment relations, leading to the assessment that one of the most serious entrepreneur risk for German carriers is high driver fluctuation (Peirowfeiz and Large, 2013). Additionally, the German transport industry is currently not only facing a shortage in drivers but also a competition over the quality of B2B services, of which

truck drivers, due to their boundary-spanning role, are an important part (Peirowfeiz and Large, 2013).

Employee commitment, also known as the relational contract, is known to bear beneficial characteristics for operational success. This is more so for customer-facing, boundary-spanning roles such as truck drivers. To address a gap in knowledge in the transport and logistics industry, our paper presents a quantitative assessment of employee satisfaction in German transport organizations.

Recognizing the desirability of employee commitment in their role for ensuring competitive advantage, the focus of this study shifts from remuneration (establishing merit-based distributive justice) towards information policy and treatment. The procedural and interactional qualities or justice are tested as to their significance for dedicated in-role behaviour. More specifically this research aims to answer the following questions:

- RQ1: To which extent do procedural and interactional justice in organizations positively affect truck drivers' experience of being managed?
- RQ2: By which justice-induced interaction mechanism is truck drivers' dedication towards their workplace significantly improved?

Based on a recent, personally administered, survey among 62 truck drivers of various employers, a structural employee commitment model based on an extensive literature review was tested. Our research is aiming at depicting potential improvements as to truck driver retention in times of employee scarcity by means of transparency, communication and courteous treatment. The subsequent sections will first provide an account on the extant literature in the field, followed by the methodological setup and the research procedures. After the discussion of the scientific results, a brief conclusion and managerial implication will be provided.

Literature Review

The driver shortage problem is not new and is also acute not only in more developed countries (Rauwald and Schmidt, 2012; Sheffi, 2015) but also in emerging countries e.g. India (Dash, 2011) or Brazil (Anon., 2014). For this reason, there has been a lot of research conducted in many countries but mostly in the US, Canada, Australia, UK, France and to a certain extent in Germany. The results of this research suggest that shortage is the result of numerous and often inter-related factors.

Some of the reasons behind driver shortage are specific to individual countries. Scholars have found increased regulation, such as in the US (Morris, 2015) or in the EU, especially in Germany (Ball, 2011) to be an impediment for employee recruitment and retention. The age structure of the truck drivers in a specific population (Soergel, 2015) varies among countries, as do infrastructural conditions e.g. the lack of parking space along highways like in Germany (Peirowfeiz and Large, 2013). Scholars have also found that general higher qualification standards and requirements may crowd out the potential for recruits in the transportation sector, as observed e.g. in the EU member states and particularly in Germany (McKinnon *et al.*, 2017). The lack of personnel is however also founded in ubiquitous attributes, low wage rates making the occupation relatively unattractive anywhere in the world (Sheffi, 2015).

To this add truck drivers' temporal and ergonomic working conditions that cause emotional exhaustion (Kemp, Kopp and Kemp, 2013) and physical strain (Robb and

Mansfield, 2007). Scholars have found the truck drivers' profession to maintain a poor public image and to undergo constant socio-technological changes, particularly due to increasingly refined driving performance monitoring by on-board devices (European Parliament, 2009; Adell, 2010; Ghazizadeh *et al.*, 2017). Finally, extant research lists employer-related phenomena as world-wide impediments to recruiting truck drivers, namely perceived organisational injustice (Cantor, Macdonald and Crum, 2011) and the lack of organisational support (Fournier, Lamontagne and Gagnon, 2012; Kemp, Kopp and Kemp, 2013).

Despite the severe impact on business operations, comparatively few studies in the German research are addressing these generic factors contributing of truck driver shortage. Investigations carried out in Germany to date focus mainly on the difficult working conditions, such as long and irregular hours or, in the case of long-distance trucking, long absence hours from home (Large, Breitling and Kramer, 2014). Furthermore, amounts of earnings/remuneration (Peirowfeiz and Large, 2013) and, in places, the time and performance pressure perceived by professional drivers (Roth *et al.*, 2004) have been discussed as a cause for driver shortage. Apart from this, the aspect of the lack of organisational support is acknowledged by Large *et al.* (2014). The authors carried out an investigation among professional truck drivers in German-speaking regions and inquired about emotional variables, such as perceived organizational support and affective commitment.

However, the German literature exhibits a remarkable absence of an explicit discussion of organisational justice in the context of professional drivers. Nonetheless, surveys on operational practice show that truck-driving personnel tend to churn on the basis of workplace-related interactions perceived as unfair (Gaida, 2008; Peirowfeiz and Large, 2013).

Transactional Justice Interaction Reference Model

Types of justice

This study is based on the assumption that the concept of organisational justice denotes a multi-factorial structure. Next to distributive justice, which is not being included in this work, procedural and interactional aspects play a crucial role in theory and professional practice (Cropanzano and Ambrose, 2015). This arises from the consideration that, in addition to the perception of fairness of formal structures and processes, employees of an organisation also pay attention to how they are dealt with during the execution of determined processes (Greenberg, 1993).

Procedural justice (PJ) refers to the procedure for decision-making processes. Decisive for the perception of fairness is whether the persons affected can have an influence on the procedure and the result. Moreover, consistent adherence to rules and ethical standards as unbiased managerial decisions bear further relevance (Thibaut and Walker, 1975; Leventhal, 1980).

In addition, interactional aspects of fairness assessment include two more significant aspects as follows:

(1) Interpersonal justice refers to the perception of the social interaction in the context of the decision-making process and hints toward the degree of courtesy, dignity and respect a person is treated with (Bies and Moag, 1986; Greenberg, 1993).

(2) Informational justice refers to whether the informative behaviour of decision-making persons is honest, whether justifications and relevant information is being included, and whether the information is being given in a timely manner (Bies and Moag,

1986; Greenberg, 1993; Shapiro, Buttner and Barry, 1994). In the present study, these two aspects are measured on company level which is why a high correlation can be expected (Ambrose and Schminke, 2003). Therefore, both will be considered as one dimension named perceived *interactional justice (IJ)*.

According to the agent-system model of organisational justice (Tyler and Bies, 1990) procedural justice perceptions should be associated with organizationally directed outcomes as procedures may be viewed as institutionalized while interactional justice is commonly associated with organizational agents (supervisors) enacting the procedures (Bies and Moag, 1986). Nevertheless, Colquitt et al. (2001) point out that employees may not exclusively link interactional fairness to supervisors and procedural fairness to organizations. A multi-focal perspective asserts that perceptions of unfairness can be attributed to a number of different sources (Byrne, 1999; Rupp and Cropanzano, 2002).

Perceived organizational support (POS) and affective commitment to the organization (ACO)

For the purpose of this study and based on the organisational support theory, it is assumed that individually perceived organizational justice has a close correlation to the development of feelings and beliefs (Rhoades and Eisenberger, 2002). Professional truck drivers who are convinced that their organization treats them fairly and demonstrate circumspection as to the drivers' quotidian necessities are reaffirmed that their well-being is being sought and their efforts appreciated by their organisation.

According to the social exchange theory, this POS support evokes a sense of conscientiousness and organisation in-role identification, commanding a particularly positive effect on the reciprocal relationship between employee and organization (Eisenberger et al., 1986). Overall, it can be assumed that the POS mediates between processes or the perception of organisational justice and the individual attitudes of an employee towards the organization (Allen, Shore and Griffeth, 2003).

Particular relevance for this context is attributed to the phenomenon of the ACO which describes the degree of socio-psychological connection to an organisation (Rhoades, Eisenberger and Armeli, 2001), bearing significance for an employee's continuance intentions (Gautam, Van Dick and Wagner, 2004). Accordingly, a number of studies show a positive correlation between lack of affective commitment and the intention to quit (Meyer et al., 2002). This leads to this study's claim that procedural and interactional justice – each in their own right – generate positive perceptions of being supported by the organization. This well-being we claim to foster affective commitment towards the workplace. In our claim, POS thus serves as a mediating variable between procedural and interactional justice on the one hand and affective commitment in an organization on the other.

Hypotheses

The above discussions lead to the Transactional Justice Interaction Reference Model's following hypotheses:

H1: Perceived organizational support mediates the effect of perceived organizational procedural justice on truck driver's affective commitment.

H2: Perceived organizational support mediates the effect of perceived organizational interactional justice on truck driver's affective commitment.

The research model is presented in Figure 1.

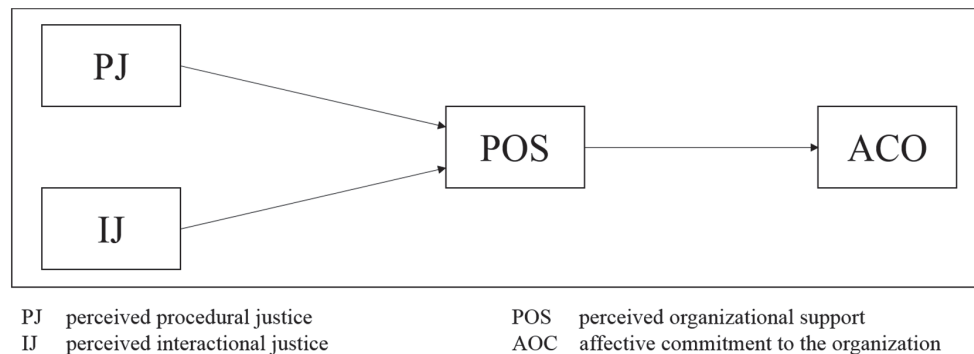


Figure 1: Research framework

Methods

Instruments

Maintaining an interpretive philosophical stance, the methodology was based on quantitative questionnaires asking for respondents' perceptions on a measured scale. A reflective measurement model based on Greenberg (1993), Byrne (1999), Cropanzano *et al.* (2001) and (Müller, Kärcher and Kals, 2011) is developed, holistically representing organizational perception as experienced by truck drivers in their respective company. The underlying factor structure is validated by a confirmatory factor analysis.

The measurement of the POS is operationalized by select qualities set out by Eisenberger *et al.* (1986). Affective Commitment is elucidated by standardized subjects described by Felfe *et al.* (2014). All dimensions are tested on a 5-point Likert scale. The applicability of all measurement scales is verified in a pretest with twelve respondents and adjusted accordingly. Control variables are set out as age, duration of organizational employment and qualification.

Sampling

As this study is about employee retention, the stabilized perception of highly desirable long-standing truck drivers is particularly relevant. 62 professional drivers were surveyed using a standardised questionnaire. The research was carried out in close cooperation with a truck-driving school near Frankfurt, Germany, providing update and safety classes to long-standing truck drivers of various logistics and supply chain companies. Therefore, the sampling consisted of safety-aware, skill-oriented drivers with a retention of at least three years in their profession. The questionnaires were distributed on-site and re-collected the same day, ensuring a high response rate. The results were administered to AMOS24 for covariant factor analysis and reliability testing.

Measurement criteria

In this section the fit between the theoretical model and the data was assessed. Five usual goodness-of-fit indices were used to assess overall model fit, namely Bentler's (1989) comparative fit index (CFI), Bentler and Bonett's (1980) non-normed fit index (NNFI), Tucker-Lewis index (TLI), discrepancy divided by degree of freedom (CMIN/df) and root mean square error of approximation (RMSEA) (Steiger, 1990) and due to the small sample the standardized root mean square residual (SRMR) as suggested by Byrne

(2016). Values higher than the 0.90 cut-off for the CFI and TLI, and a value lower than 0,08 for the RMSEA suggest an appropriate fit between the model and the data (Browne and Cudeck, 1993; Baumgartner and Homburg, 1996) while a value under 0,6 for the SRMR is appreciated in a well-fitting model (Byrne, 2016).

For scale reliability, the Cronbach’s alpha was measured and a cut-off value of 0.7 was considered as suggested by (Garver and Mentzer, 1999).

Data analysis

Measurement model

A confirmatory factor analyses was conducted for the constructs in order to asses one-dimensionality, validity, and reliability of the theoretical model. On the basis of the analysis and sample size, the model shows acceptable fit with the data: CFI = 0,953, TLI = 0,941, RMSEA = 0,082, SRMR = 0,060). The minimum sample discrepancy (CMIN/df = 1,414) was below the cut-off 3-0 (Simon and Paper, 2007).

The corresponding measures for scale reliability were: PJ (four items; 0.922), IJ (five items, 0.919), POS (three items; 0.853) and AOC (three items, 0.831).

Structural Model

Our statistical result showed the following degrees of significance among justice-induced qualities in truck drivers' workplace-interactions as in figure 2. On the basis of the analysis and sample size, the model shows also acceptable fit with the data: CFI = 0,924, TLI = 0,907, RMSEA = 0,099, SRMR = 0,062). The minimum sample discrepancy (CMIN/df = 1,650) was also below the cut-off.

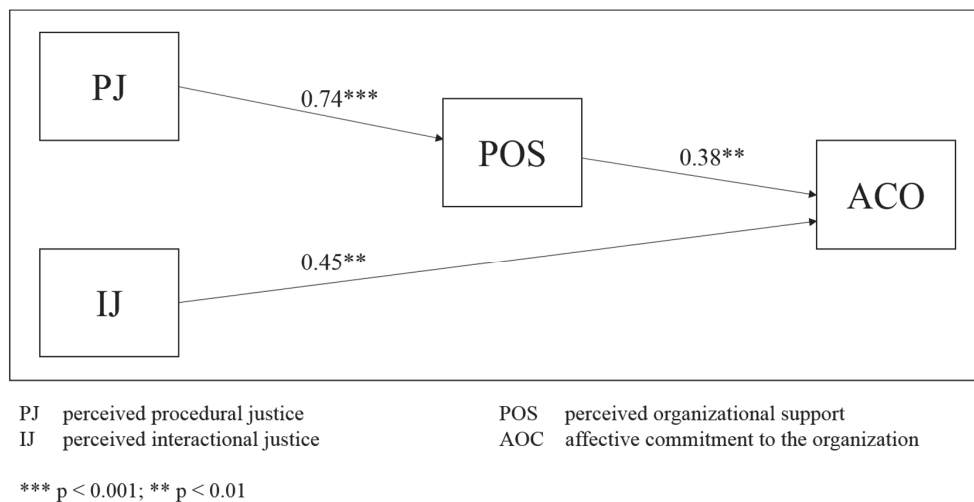


Figure 2: Statistical findings; Transactional Justice Interaction Reference Model

Discussion

Quantitative evidence on the Transactional Justice Interaction Reference Model as depicted in Figure 2 reveals that a direct relationship between procedural justice (PJ) and affective commitment (ACO) can not be established. However, perceived organizational support (POS) is fostered by procedural justice, while reinforcing affective commitment, thus acting as a mediator between the two qualities. This is in line with findings of Rhoades and Eisenberger (2002) who assert that the perceived organizational support will positively affect in-role dedication. It is also consistent with Bies and Moag (1986) as well as Tyler and Bies (1990) who link procedural justice perceptions to institutions. Our hypothesis *H1: Perceived organizational support mediates the effect of perceived organizational procedural justice on truck driver's affective commitment*, can thus be considered as verified.

However, as shown in Figure 2, there is a significant correlation between interactional justice (IJ) and affective commitment (ACO). The assumed moderating effect of perceived organizational support (POS) can not be established as it will not reinforce the direct influence of IJ and ACO. Notable scholars (Bies and Moag, 1986; Tyler and Bies, 1990) in fact link interactional justice with organizational agents rather than with the organization itself. It however contradicts the more general claims of Allen, Shore and Griffeth (2003) linking overall organizational justice to a dedicated attitude only if perceived organizational support can be established. Our hypothesis set out as *H2: Perceived organizational support mediates the effect of perceived organizational interactional justice on truck driver's affective commitment*, can thus not be verified in practice.

Our research questions stated initially can thus be answered as follows:

RQ1: To which extent do procedural and interactional justice in organizations positively affect truck drivers' experience of being managed?

There is strong first evidence among experienced German truck drivers that procedural as well as interactional justice will have a significant impact of in-role satisfaction.

RQ2: By which justice-induced interaction mechanism is truck drivers' dedication towards their workplace significantly improved?

Our studies in the German truck driving industries suggest that procedural justice will have a positive effect on perceived organizational support which in turn reinforces the truck drivers' affective commitment. Interactional justice will in turn directly foster affective commitment.

Managerial Implications

Our findings bear managerial implications in, but presumably not limited to, managing German truck drivers.

First, organizational procedures have to be aligned with the driving personnel's operational and socio-technological requirements in order to convey a perception of being supported within the organization. This will, according to our current findings, enable a more dedicated and conscientious in-role behaviour.

Second, managers in person have to constantly review their mode of information dissemination in the workforce and their behaviour in interaction with truck drivers. Apart from the situation in the company, this behaviour will directly influence the psychological contract their truck driving staff can develop.

Limitations and further research

Our findings contribute by identifying gaps between theory and practice against the background of non-distributive dimensions of justice, as well as the by developing a generic structural model for testing in-role commitment in the context of truck drivers.

Limitations of generalizability apply due to the regional focus in Germany, the particular industries as well as the current economic boom and the overall sample size, which is small compared to the large number of truck drivers in Germany. Another limitation is that all measures are based on respondents' situated perception, which are not only subject to interpretation but also to cultural and organisational understanding and may change over time. Finally, the habitat of truck driving schools may evoke particular responses that may have to be fortified in different settings in the future.

Finally, this research rises some managerial and academic questions for the future:

How can drivers, despite their frequent physical absence from the workplace, be empowered as to obtaining the necessary and reassuring processual and informational transparency and support that makes them dedicated towards their role?

Which socio-cultural and socio-technological factors are particularly capable of creating the strong perception of being treated in a courteous, fair, and amiable manner? Is there a corporate culture that particularly fosters such positive perceptions?

These constituents of non-distributive justice will require further academic scrutiny as well as managerial attention.

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