Journal of Applied Structural Equation Modeling

eISSN: 2590-4221

Journal of Applied Structural Equation Modeling: 4(1),50-64, Jan 2020

HOW DETRIMENTAL IS PSYCHOLOGICAL CONTRACT BREACH TO AIRLINES?

Mohd Ariffin SitiZubaidah^{a*}, Siew Imm Ng^b, Jo Ann Ho^c, Murali Sambasivan^d and Xin-Jean Lim^e

^aPutra Business School, Universiti Putra Malaysia, Serdang, Malaysia

^{b,c,e}Faculty of Economics and Management, Universiti Putra Malaysia, Serdang, Malaysia

^dThiagarajar School of Management, Madurai, India

*sitizubaid71@gmail.com

ABSTRACT

This study aims at understanding airline industry's organizational changes conceptualized as psychological contract breach (PCB) among flight attendants, leading to dissatisfaction reflected in this study as counterproductive work behavior (CWB). PCB refers to organization's inability in fulfilling obligations contained within the psychological contract, while CWB is defined as conducts that are harmful to organization. With 410 respondents, using Structural Equation Model (SEM), the results had shown that CWB increases as the PCB is heightened. This study adds value to the literature in three ways: PCB being tested among flight attendants; CWB being conceptualized using Hirschman's Model of EVLN with an extension of acquiescent silence; and the application of Affective Events Theory (AET) in supporting the linkage between PCB and CWB in airline context.

Keywords: psychological Contract Breach, counterproductive work behavior, flight attendant, airline...

INTRODUCTION

Airline industry impacted from the evolution of pre to post-deregulation 1978, easing the entrance of low-cost business model, further orchestrated by industry cyclicality, political uncertainties, and operational complexities (Vasikh et al., 2016). With most recent aircraft technological risk such as 737 Max safety crises (FAA, 2019) have shaped the airline industry today in the most precarious state. Vulnerability of airlines was observed with U.S. airline industry, troubled by union disputes and economic losses, bankruptcies and costly mergers (Helleloid et al., 2015), Cathay Pacific Airways experienced US160 million losses in 2017 (South China Morning Post, 2018). Japan Airlines filed for bankruptcies (The Japan Times, 2010), Germania Airline filed for bankruptcy (BBC News, 2019) to name a few. Malaysia's full service carrier's vulnerability is also reflected through cancelled flight routes (CNN, 2011), shrunk workforce (The Star Online, 2014), replaced labor union with work council (Malaysia Trade Union Congress, 2015), capital reduction exercise as implied in New Straits Times (2014), cost cutting initiatives introduced in addressing financial struggles worsen by the tragedies of lost MH 370 and MH 17 (The Sun Daily, 2014). These airline events necessitating restructuring and cost cuttings had forced airline to reduce flight attendants' promised compensation. This is perceived as Psychological Contract Breach

(PCB) amongst flight attendants. It is therefore timely to understand if the PCB is detrimental to airline, since flight attendants may demonstrate dissatisfaction through counterproductive work behavior (CWB).

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Disparate attention was given to issues related to flight attendants. Subjects investigated on flight attendants thus far, include psychological capital among flight attendants (Karatepe & Talebzadeh, 2016); flight attendants' job crafting (Karatepe & Eslamlou, 2017); the linkage between burnout and performance among flight attendants (Chen & Kao, 2012); antecedents and outcome of flight attendants' job satisfaction and turnover intention (Ng et al., 2011; Chen, 2006); physiological hazards (McNeely et al., 2018; IATA, 2015); health issues (Griffith & Powell, 2012); circadian dysrhythmia and fatigue (FAA, 2009); biological and thermal hazards, and climate change hazards (NIOSH, 2012; NIOSH, 2016); radiation exposures (Griffith & Powell, 2012); air rage (ICAO, 2016); flight attendants' mortality (NIOSH, 2012); risk of experiencing family conflict (Chung & Chung, 2009); flight attendants' compensation and benefits (Cappeli & Sherer, 1990; Barnhart & Cohn, 2004). However, limited studies were conducted to explain the repercussions of airline major events that might cause PCB in the context of flight attendants. Thus far, the outcome of psychological contract breach reported in literature include reduced loyalty (Kraak et al., 2016); declined organizational citizenship behavior (Shen et al., 2019); the indirect effect on turnover intention (Hartmann & Rutherford, 2015); eroded psychological capital and service innovation behavior (Kim et al., 2017).

PSYCHOLOGICAL CONTRACT BREACH (PCB)

PCB is defined as organization's failure in meeting obligations contained within the psychological contract (Turnley & Feldman, 1999). Psychological contract is also described as an understanding of mutual commitment between two parties (Robinson & Morrison, 2000). This term further implied as the belief's employees held on relating to the informal agreement with regards to the working terms between employee and organization (Turnley & Feldman, 1999). PCB caused declined loyalty and amplified reluctance to uphold organization's reputation, and escalated turnover intention (Salin & Notelaers, 2017).

With British Airways cabin crew went on two-weeks strikes over pay dispute (The Guardian, 2017); Air France flight crew announced a two-day strike over eroded pay despite rise in operating profit (The Local, 2018), flight attendants of Malaysia's full service carrier's attempted tool down protest over anticipated job loss (The Star, 2015), and many instances of aviation strikes bring to the view that these strikes are the outcome of airline's failure in fulfilling the employment contract. The chaotic scene of airline industry had witnessed the weakest unprofitable airlines to exit the market (Hatty & Hollmeier, 2003) while many other airlines that have opted for profitability and survivability had applied cost cutting initiatives targeting lower unit wage cost, a renewed arrangement that is in contrast with union pay scales that were based on service longevity (Wensveen, 2018). This brings to an understanding of how airline restructuring involving cost cutting initiatives impacting flight attendants' working condition and compensation packages which are perceived as airline's inability in fulfilling its prior obligations to flight attendants, resulting an inevitable occurrence of PCB from flight attendants' viewpoint.

COUNTERPRODUCTIVE WORK BEHAVIOR (CWB)

Definitions of CWB include series of conducts that are harmful to the organization by upsetting the organization's operations and employees, leading to distressing overall operational efficiency (Anjum & Parvez, 2013); activities that intentionally impair the organization or cause harm to employees (Cohen, 2016); deliberations and conducts that breached explicit and implied rules about expected behaviors within an organization, compromising the overall well-being of organizational members, and jeopardizing the interest of the organization as a whole (Brimecombe et al., 2013). Protest is also a form of CWB where individuals and group's attempt to restore and express dissatisfaction with organizational events

(Kelloway et al., 2010). Strike militancy, as demonstrated by the examples of strikes organized by flight attendants, is defined as an intended behavior, which serves as one component of attitude that targets the organization (Deckop et al., 1993).

However, the right to strike differs from countries to countries, with differing rules and specification (EPSU, 2019). The frequent strikes observed in some countries, such as strike by Unite's cabin crew (British Airways, 2010), Lufthansa's flight attendant union (UFO)'s strike (Plautz, 2014), and Cathay Pacific flight attendants protest (HKEJ, 2015), are in contrast to strike climate in some other nations such as Lithuania with strictest anti-strike legislation among the FSU countries (Sippola, 2014), and Malaysia's concept of compulsory labor arbitration as opposed to freedom to strike (Cyrus, 1990). This opposing state of affairs triggered this study's interest to understand how flight attendants of Malaysia's international full-service carrier, coped with their employees' dissatisfaction under muted voicing mechanism. While strike or protest can be viewed as explicit CWB, flight attendants being restraint from public display of dissatisfaction, might resort to subtle CWB that are not easily observable but are equivalently detrimental to airlines.

CWB could be conceptualized using Hirschman's model of EVLNS with an extension of acquiescent silence to address the non-exhaustive list of deviant behaviors as listed by past studies (Kelloway et al., 2010; Raman et al., 2016; Bai et al., 2016; Reynolds et al., 2015). That is, this study is suggesting turnover intention, voice, disloyalty, neglect, and acquiescent silence as flight attendants' reactions to dissatisfaction. Deliberations above lead to the question whether PCB is partly responsible for flight attendants' CWB?

AFFECTIVE EVENTS THEORY (AET)

While the linkage between psychological entitlement and deviant behavior was established from the perspective of Attribution Theory (Vatankhah & Raoofi, 2018). Specifically, this theory proposes that people try to determine why people do what they do (i.e., attribute causes to behavior, it does not suggest specific psychological causes that explain the behavior). In fact, the relationship between PCB and CWB in this study can be better explained by Affective Events Theory (AET). This theory proposed that work events influence affective states, leading to judgement-driven behaviour (Weiss & Beal, 2005). Empirical studies provide evidences of the linkage indicating negative events that are significantly associated to all affective reactions (Mignonac & Herrbach, 2004). Hence, airline events such as restructuring and cost cutting measures leading to PCB, induces what AET postulated as judgement-driven behavior (Weiss & Beal, 2005) subsequently led to individual's conduct and way of thinking (Basch & Fisher, 1998), translated to attempted tool down protest by flight attendants (The Star, 2015) which is one in many forms of behavior conceptualized under CWB. Restructuring initiatives weakened the traditional job security and career benefits (Hallier & James, 1997). Therefore, flight attendants who survived from the job cuts, would experience psychological contract breach due to the renewed working terms and conditions, such as replaced labor union with a work council (Malaysia Trade Union Congress, 2015), leading to AET's judgement-driven behaviors (Weiss & Beal, 2005) where occurrences of attempted strike and protest as forms of CWB are manifested due to perceived unfair treatment following PCB.

RELATIONSHIP BETWEEN PCB AND CWB

Psychologically entitled employees have the tendency to engage in high level of turnover intention, low job satisfaction, and are inclined to indulge in unethical and political behavior (Vatankhah & Raoofi, 2018), which are indications of CWB, suggesting that PCB (which is a breach of entitlement) lead to CWB. The accumulation of PCB is associated with increased feelings of violation, which subsequently was reported positively associated with increased CWB towards organization (Griep & Vantilborgh, 2018). While it may be viewed as coping strategies to stabilize the feeling of discrepancies, flight attendants resorting to CWB under constraint voicing mechanism may be viewed as maladaptive response (Rippetoe & Rogers, 1987) if these harmful behaviors persist. The financial cost of CWB lies between 17.6 billion dollars to

200 billion dollars (Griep et al., 2018). Attesting this claim are examples of airline's strike such as Lufthansa's flight attendants' union UFO's strike, causing 4700 cancellation of flights that affected 550,000 passengers (Plautz, 2014) with significant operational struggles and financial costs (Lufthansa Group, 2014), and China Airlines estimates USD12m loss from week long pilot strike (Blue Swan Daily, 2019) to name a few.

Therefore, the impact of CWB caused by PCB in the context of airline industry could be grievously detrimental, given flight attendants' prime role as in-flight safety custodian and airline representative. The act of CWB, measuring using Hirschman's Model of EVLN with an extension of acquiescent silence, explains disruption of flight operation when flight attendants choose to resign (exit); or will bring about airline's disordered state when strike occurs (voice), causing cancellation of flights, stranded passengers and irretrievable financial losses. Disloyalty is associated with being disengaged, disturbed, disenchanted, and disruptive (Rowley & Dawes, 2000). This is followed with the state of neglect, defined as "submissively allowing situations to get worse through diminished enthusiasm, effort, leading to persistent tardiness and increased absenteeism" (Lee & Varon, 2016, p.3). That is, flight attendents may ignore or delay services to passengers. Acquiescent silence is another form of coping behavior, described as harmful to organizations, due to its potentiality in inhibiting organizational change (Morrision & Milliken, 2000). In fact, this term is defined as having the capability in subduing the initiatives in improving organizational performance (Erkutlu & Chafra, 2018).

PCB had shown to cause reduced loyalty, and less willingness to defend the organization (Kraak et al., 2016). That is, flight attendants may resort to behaviours that will safeguard their job security, but yet subtle and unobservable, such as disloyalty and suffer in silence (Farrel, 1983). Hence, this study suggests that flight attendants' experience of PCB will causes them to resort and form CWB that is explicit (i.e., turnover intention and voice) and implicit behavior (i.e., disloyalty, neglect and acquiescent silence). This leads to the following hypothesis:

H₁: There is a positive relationship between PCB and CWB.

METHODOLOGY

A total of 500 paper-based survey questionnaires were distributed to flight attendants of Malaysia's international full-service carrier, who were attending Safety Recurrent Courses. We personally distributed all 500 questionnaires which was conducted in stages. All 500 questionnaires were returned due to the offer of meal voucher as token of appreciation. However, a total of 90 questionnaires were considered unusable due to missing values. Therefore, only 410 questionnaires were used for analysis.

MEASUREMENT

All the measurement items were adapted from previous literature. PCB was measured using 5 items adapted from Scronce and Mckinley (2006) with α =0.90. As highlighted in previous section, CWB was conceptualized into 5 different dimensions. Among these dimensions, 4 items of turnover intention (α =0.79), 4 items of voice (α =0.70), 4 items of disloyalty (α =0.88) and 5 items of neglect (α =0.76) were adapted from the scale developed by Itzkovich and Alt (2015). Moreover, acquiescent silence was measured using 3 items from Knoll and Van Dick (2012) with α =0.88. Each of the items was answered with a five-point Likert scale, anchored from 1= strongly disagree to 5= strongly agree.

RESULTS

Data analysis were based on 410 usable data which begun with demographic information and descriptive analysis. Next, by using Partial Least Squares Structural Equation Modeling (PLS-SEM), the assessment of measurement model, higher order construct and structural model analysis were performed.

DEMOGRAPHIC PROFILE

As indicated in Table 1, three main ethnic group represented the majority respondents, with Malay (48.7%), Chinese (30.4%), Indian (10.2%), and other ethnic groups (10.7%). A total of 74.5% of flight attendants were from the age range between 39 to 60 years old, with majority (43.1%) represent those between 46-52 age range. Long tenured flight attendants ranged from 11 to over 26 years (84%), with 48.7% having more than 26 years' work experience, and 58.9% of them held supervisory position. There was almost a balance number between male and female respondents while 67.4% were married. In fact, majority of them (54.60%) were SPM holders.

Table 1: Demographic Profile

Demographic Profile		Frequency	Percentage (%)
		(n=410)	
Age	18-24 years old	5	1.20
	25-31 years old	47	11.40
	32-38 years old	53	12.90
	39 - 45 years old	89	21.70
	46-52 years old	177	43.10
	53-60 years old	40	9.700
Gender	Female	201	49.90
	Male	209	50.10
Race	Indian	41	10.20
	Malay	200	48.70
	Chinese	125	30.40
	Others	44	10.70
Marital Status	Single	118	28.70
	Married	277	67.40
	Divorces	14	3.40
	Separated	2	0.50
Position	In-flight Supervisor	134	32.60
	Leading	108	26.30
	Steward/Stewardess		
	Flight Steward/Stewardess	169	41.10
Education	SPM	224	54.60
	Diploma	132	32.10
	Bachelor	47	11.40
	Master	8	1.90
Tenure	< 2- 5 YEARS	46	11.10
	6 to 10 years	20	4.90
	11 to 15 years	36	8.80
	16 to 20 years	28	6.80
	21 to 25 years	81	19.70
	26 years and above	200	48.70

DESCRIPTIVE ANALYSIS

Next, the descriptive analysis was performed by highlighting on the mean, standard deviation and degree of agree for each of the items in PCB and CWB's dimensions (i.e., turnover intention, voice, disloyalty, neglect and acquiescent silence) (refer Table A1). For PCB's items, about half of the respondents were neutral, while a quarter each disagree and agree respectively. The result suggesting a clear division of opinions on PCB among flight attendants. For CWB's dimensions, flight attendants appeared to have low

turnover intention and neglect. While moderate level of voice, disloyalty and acquiescent silence, which seemed to suggest some level of CWB were evident (refer Table A1).

Assessment of Measurement Model

The assessment of measurement model involved three criteria: (i) internal consistency, (ii) convergent validity; and (iii) discriminat validity. First, the internal consistency was measured using composite reliability (CR). The result illustrated that all CR values were above rule of thumb of 0.70 (Hair et al., 2017). Next, convergent validity was examined using outer loading and average variance explained (AVE). As shown in Table 2, all the item's outer loading exceeded the recommended value of 0.70, except for item D1. Thus, one item was removed due to outer loading <0.40 (Hair et al., 2017). In addition, the AVE value for all the constructs were above 0.50, indicating sufficient level of convergent validity. Lastly, Heterotrait-Monotrait Ratio (HTMT) technique proposed by Henseler et al. (2015) was applied in assessing the discriminant validity. As shown in Table 3, all the construct exceeded the minimum threshold of 0.90 (Gold et al., 2001).

Table 2: Internal Consistency and Convergent Validity

Construct	Outer Loading	Composite Reliability (CR)	Average Variance Extracted (AVE)
1. Disloyalty	0.190-0.870	0.845	0.509
2. Neglect	0.730-0.820	0.879	0.594
3. PCB	0.790-0.860	0.860	0.564
4. Acquiescent Silence	0.770-0.850	0.844	0.659
5. Turnover Intention	0.880-0.930	0.952	0.832
6. Voice	0.650-0.840	0.836	0.535

Note: PCB (Psychological Contact Breach)

Table 3: Discriminant Validity (HTMT)

Construct	1	2	3	4	5	6
1. Disloyalty						
2. Neglect	0.441					
3. PCB	0.303	0.257				
4. Acquiescent Silence	0.312	0.511	0.435			
5. Turnover Intention	0.517	0.611	0.247	0.406		
6. Voice	0.254	0.209	0.277	0.39	0.19	

Note: PCB (Psychological Contact Breach)

Assessment of Higher Order Construct

This study followed the steps suggested by Cheah et al. (2019) and Sarstedt, Hair, Cheach, Becker and Ringle (2019) in assessing higher-order construct (HOC). The outer variance inflation factor (VIF) of all lower-order constructs (LOCs) (i.e., turnover intention, voice, disloyalty, neglect and acquiescent silence) are well below the threshold value of 3.33 (Diamantopoulos & Siguaw, 2006), indicating collinearity issue was not significant among the construct (see Table 4). In addition, the bootstrapping result indicated that all the LOCs are statistically significant, except for neglect (p=0.584, t=0.548) and turnover intention

(p=0.667, t=0.430) (see Table 4). However, this LOC was retained in order to fully capture the domain of CWB using Hirschman's Model of EVLN.

Table 4: Higher-order construct

	Lower-order Construct (LOC)	Outer Weight	Outer VIF	t-value	p-value
	(i) Turnover intention	0.071	1.607	0.430	0.667
	(ii) Voice	-0.288	1.136	2.516*	0.012
CWB	(iii) Disloyalty	0.302	1.257	2.418**	0.016
	(iv) Neglect	0.100	1.538	0.548	0.584
	(v) Acquiescent Silence	0.654	1.318	5.296**	0.000

Note: CWB (Counterproductive Work Behavior); *p-value <0.05, **p-value <0.01

Assessment of Structural Model

The assessment of the structural model was performed using bootstrapping technique with 5000 subsamples. The path coefficient result shows that there is a positive relationship between PCB and CWB (p=0.000, t=8.786), thus H1 is supported. Overall, 14.60% of variance in CWB is explained by PCB. Moreover, we further examine on the effect size using Cohen's (1988) guideline in where 0.02, 0.15, and 0.35 indicating small, medium and large effect respectively. In this study, the result showed that PCB has a medium effect in generating R2 of CWB. Lastly, by using blindfolding technique, CWB with Q2 value = 0.051, indicating the presence of predictive relevance (Lim et al., 2019) (see Table 5).

Table 5: Structural Model

Path Relationship	Beta	Std Error	t-value	p-value	\mathbb{R}^2	f^2	Q^2
PCB -> CWB	0.396	0.043	8.786**	0.000	0.146	0.171	0.051

Note: PCB (Psychological Contact Breach); CWB (Counterproductive Work Behavior);

DISCUSSION

The significant positive link between PCB and CWB from the result demonstrates the detrimental effect of PCB to the airline, where flight attendants' CWB increased due to PCB. Therefore, PCB should be managed to reduce with CWB. The findings support the notion of judgement-driven behavior proposed by AET, that negative events (i.e., cost-cutting measure) lead to feeling of injustice or contract breach, which then result in undesired behavior (i.e., CWB). Similarly, it provides support to notion proposed by attribution theory that psychologically entitled (feeling of being short-changed) flight attendants of Iran were prone to engage in manifestation of CWB (Vatankhah & Raoofi, 2018). True enough, Griep and Vantilborgh (2018) highlighted that accumulation of PCB amongst paid and volunteer employees in social enterprise in Belgium that was positively linked to feelings of violation, and positively associated with increased CWB towards organization. It also provides support to literature on the negative outcome of PCB. While PCB was negatively associated with China employees' promotive and prohibitive voice (Guo, 2017). Similarly, Ng, Feldman, and Butts (2014) who were guided by social exchange theory reported PCB negatively related to constructive voice behavior amongst Hong Kong employees.

^{**}p-value <0.001

THEORETICAL AND MANAGERIAL IMPLICATIONS

This study extended attribution theory by bringing in AET to explain in more detail how accumulated negative events lead to negative affect (i.e., PCB), subsequently resulting in judgment-based behavior (i.e., CWB). Contrary to attribution theory's notion in identifying general causes for the behavior, AET pointed out more tangible causes (events) and psychological state, which finally explain the behavior. The study also adds to PCB literature by highlighting its presence in airline industry given the industry's turbulent business environment. It has furthered CWB literature by reporting the appropriateness of using Hirschman's model of EVLNS with an extension of acquiescent silence to address the nonexhaustive list of deviant behaviors as listed by past studies (Kelloway et al., 2010; Raman et al., 2016; Bai et al., 2016; Reynolds et al., 2015); five dimensions are turnover intention, voice, disloyalty, neglect, and acquiescent silence. The assessment of HOC was found meeting the entire required threshold, verifying the appropriateness of treating counterproductive work behavior as a five-dimensional construct. Airlines are suggested to provide adequate communication training to managers so that they could clearly explain to flight attendants why organizational changes in terms of cost-cutting are necessary in the short run. And how the violated promises (e.g., reduced compensation) could be compensated with other benefits like improvisation of free annual flight packages, more flexible scheduling, and higher insurance coverage etc. With those measures in place, perceived injustice or violation of promises may be reduced, which could bring down occurrences of CWB. The presence of disloyalty, neglect, and acquiescent silence should be a concern to the airline managers given its deviance destructive nature. Therefore, conducive or open communication would be helpful to encourage flight attendants in providing continuous feedback and minimize elements of reticent. Airline managers should also show empathy to flight attendants and acknowledge the fact that the violated promises have compromised flight attendants' quality of life. Given the empathized communication, hopefully reduce the sabotaged behavior in the form of disloyalty, neglect, and acquiescent silence.

CONCLUSIONS

This study demonstrated the detrimental effect of PCB to airlines. Descriptive analysis seemed to suggest that both PCB and CWB were evident among flight attendants of an international full-service carrier in Malaysia. When flight attendants perceived PCB, they may manifest dissatisfaction through different forms of CWB. Contrary to Hirschman's EVLNS Model suggesting that dissatisfied employees will resort to exiting the organization, flight attendants of this airline had indicated less inclination to leave the airline, and had shown propensity to speak up. Notably, this study had shown evident of subtle CWB such as disloyalty, neglect, and acquiescent silence, highlighting these three forms of CWB that are intangible and not easily observed but are equivalently detrimental to airline. These subtle yet harmful behaviors do not bode well with flight attendants being the representative of the airline as they could potentially deliver substandard service to passengers, impacting the airline's overall branding. Therefore, efforts to alleviate PCB and CWB are urgently called for.

LIMITATIONS AND FUTURE DIRECTIONS

Longitudinal study should be considered given that this study that is cross-sectional in nature. In addition, longitudinal approach could be used to track the changes of CWB over time for better understanding if individual's life stage influences CWB. Studies could look into potential mediators that explain the mechanism from PCB to CWB. This would help to gain more insights in order to weaken the PCB and CWB link. Future studies may suggest other potential antecedents of CWB, given that only the effect of PCB on CWB was evaluated in this study. Future studies could replicate the model to other similarly high-risk professions such as aviation pilots, logging workers, fishing workers, oil rig workers, prison wardens, law enforcement officers, and soldiers to help evaluate the generalizability of the model.

REFERENCES

- Anjum, M.A., & Parvez, A. (2013), Counterproductive behavior at work: A comparison of blue collar and white-collar workers. *Pakistan Journal of Commerce and Social Sciences*, 7(3), 417-434.
- BBC News (2019). Germania airline files for bankruptcy. Retrieved from https://www.bbc.com/news/business-47127921
- Bai, Q.Y., Lin, W.P., & Wang, L. (2016). Family incivility and counterproductive work behavior: A moderated mediation model of self-esteem and emotional regulation. *Journal of Vocational Behavior*, 94, 11-19.
- Barnhart, C., & Cohn, A. (2004). Airline schedule planning: Accomplishments and opportunities. (A. Cohn, Ed.) Manufacturing and Service Operations Management, 6(1), 3-22.
- Basch, J., & Fisher, C. D. (1998). Affective events-emotions matrix: A classification of work events and associated emotions (pp. 1-20). Bond University.
- Blue Swam Daily (2019). China Airlines estimates USD12m loss from week long pilot strike. Retrieved from: https://blueswandaily.com/china-airlines-estimates-usd12m-loss-from-week-long-pilot-strike/
- Brimecombe, M., Magnusen, M.J., & Bunds, K. (2013). Navigating the storm: A Counterproductive work behavior and leadership case study in a Division 1 FBS School. *Sports Management Review*, 17, 209-237.
- British Airways (2010). 2009/2010 Annual Report of British Airways. Retrieved from: https://www.britishairways.com/cms/global/microsites/ba_reports0910/pdfs/BA_AR_2010.pdf
- Cappeli, P., & Sherer, P.D. (1990). Assessing Worker Attitudes Under A Two-Tier Wage Plan. *Industrial and Labor Relations Review*, 43(2), 225-244.
- Cheah, J. H., Ting, H., Ramayah, T., Memon, M. A., Cham, T. H., & Ciavolino, E. (2019). A comparison of five reflective–formative estimation approaches: reconsideration and recommendations for tourism research. Quality & Quantity, 53(3), 1421-1458.
- Chen, C.F. (2006). Job satisfaction, organizational commitment, and flight attendants' turnover intention: A Note. *Journal of Air Transport Management*, 12, 274–276.
- Chen, C. F., & Kao, Y. L. (2012). Moderating effects of work engagement and job tenure on burnout-performance among flight attendants. *Journal of Air Transport Management*, 25, 61-63.
- Chung, C.T., & Chung, U.L. (2009). An Exploration of Quality of Life and Related Factors Among Female Flight Attendants. *Journal of Nursing Research*, 17(3), 212-220.
- CNN (2011). Malaysia Airlines drops eight routes. Retrieved from http://travel.cnn.com/explorations/escape/malaysia-airlines-drops-eight-routes-470821/
- Cohen, A. (2016). Are they among us? A conceptual framework of the relationship between the dark triad personality and counterproductive work behaviors (CWBs). *Human Resource Management Review*, 26, 69-85.
- Cohen, J. (1988), Statistical Power Analysis for the Behavioral Sciences, Lawrence Erlbaum Associates, Hillsdale.
- Cyrus, V.Das. (1990). The control and regulation of strikes and lockouts in Malaysia. 2nd Int. Seminar on Labour Law (pp. 96-108). LAWASIA Standing Committee on Labour Law.

- Deckop, J. R., McClendon, J. A., & Harris-Pereles, K. L. (1993). The effect of strike militancy intentions and general union attitudes on the organizational citizenship behavior of university faculty. *Employee Responsibilities and Rights Journal*, 6(2), 85-97.
- Diamantopoulos, A., & Siguaw, J. A. (2006). Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration. *British Journal of Management*, 17(4), 263-282.
- EPSU (2019). The right to strike country factsheets. Retrieved May 1, 2019, from www.epsu.org: https://www.epsu.org/article/right-strike-country-factsheets
- Erkutlu, H., & Chafra, J. (2018). Leader's integrity and employee silence in healthcare organizations. *Leadership in Health Services*, 1751-1859.
- FAA. (2019). FAA Statement on Boeing 737 Max. Retrieved from www.faa.gov: https://www.faa.gov/news/updates/?newsid=93206
- Farrel, D. (1983). Exit, Voice, Loyalty, and Neglect as Responses to Job Dissatisfaction. *Academy of Management Journal*, 26(4), 596-607.
- Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, 18(1), 185–214.
- Griep, Y., Vantilborgh, T., & Jones, S. K. (2018). The relationship between psychological contract breach and counterproductive work behavior in social enterprises: Do paid employees and volunteers differ? *Economic and Industrial Democracy*, 1-19.
- Griep, Y., & Vantilborgh, T. (2018). Reciprocal effects of psychological contract breach on counterproductive and organizational citizenship behaviors: The role of time. *Journal of Vocational Behavior*, 104, 141-153.
- Griffiths, R. F., & Powell, D. (2012). The occupational health and safety of flight attendants. *Aviation, Space, and Environmental Medicine*, 83(5), 514-521.
- Guo, Y. (2017). Effect of psychological contract breach on voice behavior: Evidence from China. *Social Behavior and Personality*, 45(6), 1019-1028.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017). A primer on partial least squares structural equation modeling (PLS-SEM). Thousand Oaks, California, USA: Sage Publications Inc.
- Hallier, J., & James, P. (1997). Management enforced job change and employee perceptions of the psychological. *Employee Relation*, 19(3), 222-247.
- Hartmann, N.N., & Rutherford, B.N. (2015). Psychological contract breach's antecedents and outcomes in salespeople: The roles of psychological climate, job attitudes, and turnover intention. *Industrial Marketing Management*, 51, 158-170.
- Hatty, H., and Hollmeier, S. (2003). Airline Strategy in the 2001/2002 crisis—The Lufthansa Example. Journal of Air Transport Management, 9, 51-55.
- Helleloid, D., Nam, S.H., Schultz, P., &Vitton, J. (2015). The U.S. Airline Industry 2015. Journal of the International Academy for Case Studies, 21, 113-125.
- Henseler, J., Ringle, C.M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- HKEJ (2015). Cathay Pacific flight attendants plan August strike. Retrieved from: http://www.ejinsight.com/20150520-cathay-pacific-flight-attendants-plan-august-strike/

- IATA. (2015). Guidance on Turbulence Management: 7 Years 1945 2015, Flying Better Together. International Air Transport Association, Safety and Flight Operation. Montreal, Geneva: 2015 International Air Transport Association. Retrieved from https://en.airport.ir/documents/11823503/12434591/IATA-Guidance-on-Turbulence-Management.pdf/629ed998-4f8e-47c7-9a1b-e5af37bfdc26
- ICAO. (2016). Promotion of the Protocol To Amend The Convention On Offenses and Certain Other Acts Committed On Board Aircraft Done At Montreal On 4th April 2014. (Montreal Protocol 2014). (Publication No: A39-WP/1391). International Civil Aviation Organization, International Air Transport Association. ICAO.
- Itzkovich, Y., & Alt, D. (2016). Development and validation of a measurement to assess college students' reactions to faculty incivility. *Ethics & Behavior*, 26(8), 621-637.
- Karatepe, O.M., & Eslamlou, A. (2017). Outcomes of job crafting among flight attendants. *Journal of Air Transport Management*, 62, 34-43.
- Karatepe, O. M., & Talebzadeh, N. (2016). An empirical investigation of psychological capital among flight attendants. *Journal of Air Transport Management*, 55, 193-202.
- Kelloway, E.K., Francis, L., Prosser, M., & Cameron, J.E. (2010). Counterproductive Work Behavior as Protest. *Human Resource Management Review*, 20,18-25.
- Kim, T.T., Karatepe, O.M., & Lee, G. (2017). Psychological contract breach and service innovation behavior: Psychological Capital as a Mediator. *Service Business*. 12,305–329.
- Knoll, M., & Van Dick, R. (2012). Do I hear the whistle...? A first attempt to measure four forms of employee silence and their correlates. *Journal of Business Ethics*,1-14.
- Kraak, J.M., Lunardo, R., Herrbach, O., & Durrieu, F. (2016). Promises to employees' matter, self-identity too: Effects of psychological contract breach and older worker identity on violation and turnover intentions. *Journal of Business Research*, 1-10.
- Lee, J., & Varon, A. L. (2016). Employee exit, voice, loyalty, and neglect in response to dissatisfying organizational situations: It depends on supervisory relationship quality. *International Journal of Business Communication*, 1-22.
- Lim, X.J., Cheah, J.H., Waller, D.S., Ting, H., & Ng, S.I. (2019). What s-commerce implies? Repurchase intention and its antecedents. Marketing Intelligence & Planning, forthcoming.
- Lufthansa Group. (2014). Lufthansa Annual Report 2014. Lufthansa Group. Retrieved from https://investor-relations.lufthansagroup.com/fileadmin/downloads/en/financial-reports/annual-reports/LH-AR-2014-e.pdf
- Malaysian Trade Union Congress (2015). MAS Act unjust to workers and trade unions. Retrieved from: http://www.mtuc.org.my/mas-act-unjust-to-workers-and-trade-unions/
- McNeely, E., Mordukhovich, I., Tideman, S., Gale, S., & Coull, B. (2018). Estimating the health consequences of flight attendant work: comparing flight attendant health to the general population in a cross-sectional study. *BMC Public Health*, 18(1), 346.
- Mignonac, K., & Herrbach, O. (2004). Linking Work events, affective states, and attitudes: An empirical study of managers' emotions. *Journal of Business and Psychology*, 19(2), 221-240.
- Morrison, E. W., & Milliken, F. J. (2000). Organizational silence: A barrier to change and development in a pluralistic world. *Academy of Management review*, 25(4), 706-725.
- New Straits Times (2014). MAS shares to be delisted from Bursa Malaysia. Retrieved from https://www.nst.com.my/news/2015/09/mas-shares-be-delisted-bursa-malaysia-dec-31

- Ng, S.I., Murali, S., & SitiZubaidah, M.A (2011). Antecedents and outcomes of flight attendants' job satisfaction. *Journal of Air Transport Management*, 17(5), 309-313.
- Ng, T.W.H., Feldman, D.C., & Butts, M.M. (2013). Psychological contract breaches and employee voice behaviour: The moderating effects of changes in social relationships. *European Journal of Work and Organizational Psychology*, 23(4), 537-553
- NIOSH (2012). Health concerns for Flight Attendants. USA: National Institute for Occupational Safety and Health. Retrieved from: https://www.cdc.gov/niosh/topics/aircrew/default.html
- NIOSH (2016). Are Flight attendants at increased risk for breast cancer? Retrieved from The National Institute for Occupational Safety and Health: https://www.cdc.gov/niosh/research-rounds/resroundsv2n6.html
- Plautz, J. (2014). Flight attendant, pilot strikes disrupt holiday week travel. MashableAsia. Retrieved from: http://mashable.com/2014/12/25easyjet-christmas-strike/
- Raman, P., Sambasivan, M., & Kumar, N. (2016). Counterproductive work behavior among frontline government employees: Role of personality, emotional intelligence, affectivity, emotional labor, and emotional exhaustion. *Journal of Work and Organizational Psychology*,1-13.
- Reynolds, C.A., Shoss, M.K., & Jundt, D.K. (2015). In the eye of the beholder: A multi-stakeholder perspective of organizational citizenship and counterproductive work behaviors. *Human Resource Management Review*, 25, 80-93.
- Rippetoe, P. A., & Rogers, R. W. (1987). Effects of components of protection-motivation theory on adaptive and maladaptive coping with a health threat. *Journal of Personality and Social Psychology*, 52(3), 596–604.
- Robinson, S. L., & Wolfe Morrison, E. (2000). The development of psychological contract breach and violation: A longitudinal study. *Journal of organizational Behavior*, 21(5), 525-546.
- Rowley, J., & Dawes, J. (2000). Disloyalty: A closer look at non-loyals. Journal of Consumer Marketing, 17(6), 538-549.
- Salin, D., & Notelaers, G. (2017). The effect of exposure to bullying on turnover intentions: the role of perceived psychological contract violation and benevolent behaviour. Work & Stress: An International Journal of Work, Health & Organisation, 31(4), 355-374.
- Sarstedt, M., Ringle, C.M., Cheah, J.H., Becker, J.M., & Ringle, C.M. (2019), "How to specify, estimate, and validate higher-order constructs in PLS-SEM", *Australasian Marketing Journal*, 27(3), 197-211
- Shen, Y., Schaubroeck, J.M., Zhao, L., & Wu, L. (2019). Work Group Climate and Behavioral Responses to Psychological Contract Breach. *Frontiers Psychology*, 10(67).
- Sippola, M. (2014). The Awkward Choices Facing the Baltic Worker: Exit or Loyalty. *Journal of Baltic Studies*, 44(4), 451-473.
- Sronce, R., & Mckinley, W. (2006). Perceptions of organizational downsizing. *Journal of Leadership and Organizational Studies*, 12(4), 89-108.
- South China Morning Post (2018). Cathay Pacific racks up first back-to-back loss in 71-year history, at US\$160 million. Retrieved from: https://www.scmp.com/news/hong-kong/economy/article/2137114/cathay-pacific-racks-first-back-back-loss-71-year-history
- The Guardian (2017). British Airways cabin crew extend strike for further two weeks. Retrieved from: https://www.theguardian.com/business/2017/aug/03/british-airways-cabin-crew-extend-strike-further-two-weeks

- The Japan Times (2010). Poor management led to JAL bankruptcy filing. Retrieved from: https://www.japantimes.co.jp/news/2010/08/18/business/poor-management-led-to-jalbankruptcy-filing/#.W1rZamUkzR0
- The Local (2018). Air France unions announce new two-day strike. Retrieved from: https://www.thelocal.fr/20180402/air-france-unions-announce-new-two-day-strike
- The Star (2015). Negotiate, don't go on strike. Retrieved from: https://www.thestar.com.my/opinion/letters/2015/06/12/negotiate-dont-go-on-strike/
- The Star Online (2014). A task force to undertake MAS restructuring. Retrieved from https://www.thestar.com.my/business/business-news/2014/08/16/a-task-force-to-undertake-mas-restructuring-there-a-long-list-of-things-to-do-to-make-things-right-a
- The Sun Daily (2014). MAS staff need support group to recuperate from MH17 loss, says expert. Retrieved from http://www.thesundaily.my/news/1122280
- Turnley, W.H., & Feldman, D.C. (1999). The impact of psychological contract violations on Exit, Voice, Loyalty, and Neglect. *Human Relations*, 52(7), 895-922.
- Vasikh, B., Fleming, K., & Tacker, T. (2016). *Introduction to air transport economics: From theory to application.* Second Edition. USA: Routledge, Taylors and Francis.
- Vatankhah, S., & Raoofi, A. (2018). Psychological entitlement, egoistic deprivation, and deviant behaviour among cabin crew: An Attribution Theory Perspective. *Tourism Review*, 73(3), 314–330.
- Weiss, H.Ma., & Beal, D.J. (2005). *Reflections on affective events theory*. In D. J. Howard M Weiss, The effect of affect in organizational settings (pp. 1-21). Emerald Group Publishing Limited.
- Wensveen, J.G. (2018). Airline Labor Relation. In J. Wensveen, Air Transportation: A Management Perspective (Ebook ed., p. 25). London, UK: Routledge.

APPENDIX

Table A1: Descriptive Analysis

Measurement Items	Mean	SD -	Degree of Agree (%)				
	Mean	SD	1	2	3	4	5
Psychological Contract Breach (PCB)							
PCB1: Almost all of the promises made by my employer during recruitment have been kept so far *	3.20	0.87	0.50	21.20	42.90	28.30	7.10
PCB2: I feel that my employer has come through in fulfilling the promises made to me when I was hired*	3.13	0.842	1.50	20.50	46.30	26.80	4.90
PCB3: So far my employer has done an excellent job of fulfilling its promises to me*	3.32	0.787	0.70	12.20	46.60	34.90	5.60
PCB4: I have not received everything promised to me in exchange for my contributions	2.91	0.871	4.10	27.10	45.30	20.20	3.20
PCB5: My employer has fulfilled many of its promises to me as I upheld my side of the deal*	3.15	0.798	0.70	20.00	46.60	29.30	3.40
Counterproductive Work Behaviour (CWB)							
(i) Turnover Intention (TI)							
TI1: I would often think about quitting my job in the near future.	2.81	1.07	10.20	31.50	31.00	21.50	5.90
TI2: I often think of giving notice that I intended to quit	2.58	1.01	12.40	39.30	30.20	13.90	4.10
TI3: I often think of accepting my alternative job offer	2.83	1.02	9.00	29.50	35.80	20.50	5.10
TI4: I often think of quitting my current job	2.60	1.08	14.40	38.00	26.30	16.10	5.10
(ii) Voice (V)							
V1: I would go to my immediate supervisor (eg: Leading or IFS or Tech Crew or In-flight Manager) to discuss the problem	3.45	0.94	2.40	16.10	23.90	48.80	8.80
V2: I would ask my crew members for advice about what to do	3.68	0.77	0.70	8.50	20.50	62.20	8.10
V3: I would talk to Cabin Crew Manager about how I felt about the situation	3.05	1.00	7.80	19.50	37.10	31.20	4.40
V4: I would try to solve the problem by suggesting changes in the way the situation or problem was supervised at the workplace	3.69	0.73	9.80	5.60	29.00	0.20	55.40
(iii) Disloyalty (D)							
D1: I would hang in there and wait for the problem to go away* (D)	3.46	0.84	0.50	13.40	32.90	45.60	7.60
D2: I would stick with my job through good and bad times.*	3.65	0.76	8.30	55.60	30.20	4.40	1.40

D3: I would think that my job is as good as most other jobs.*	3.64	0.82	10.00	54.40	26.60	7.30	1.70
D4: I would wait patiently for the problem to disappear *	3.20	0.92	2.70	20.70	36.30	34.40	5.90
(iv) Neglect (N)							
N1: I would lose motivation to do my job as well as I might otherwise	2.84	0.90	3.20	37.10	35.90	20.70	3.20
N2: I would not have the motivation to work	2.68	0.92	5.60	43.90	30.20	17.30	2.90
N3: I would call in sick occasionally because I didn't feel like working	2.22	0.98	21.70	48.70	18.80	7.30	3.40
N4: I would put less effort into my job	2.18	0.89	18.80	55.90	16.10	7.30	2.00
N5: I would do what is necessary, but not as enthusiastically as I used to be.	2.98	1.08	8.80	28.30	24.90	32.70	5.40
(v) Acquiescent Silence (AS)							
AS1: I prefer not to say anything because I will not find a sympathetic ear, anyway	2.67	0.93	6.60	41.00	34.60	14.10	3.70
AS2: I prefer not to say anything because my superiors / management are not open to proposals, concerns, or the like	3.17	1.08	2.90	25.60	34.60	26.40	10.40
AS3: I prefer to remain quiet in this airline because nothing will change, anyway	3.31	1.14	3.40	25.60	26.10	26.10	18.80

Note: * Reversed coded; D= item deleted; Degree of Agree: 1= strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree