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# Exploring the perceived competence of airport ground staff in dealing with unruly passenger behaviors

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#### ABSTRACT

Unruly Passenger Behaviors (UPBs) are a challenge for service provision enterprises, notably the airline industry. To explore ground staff competence and difficulties in dealing with UPBs, a questionnaire was established in consultation with managers of three multinational airlines, and was duly completed by airline ground staff (n=494). Response analysis using Rasch models identified the most challenging UPBs and assessed staff competence in handling UPBs. Some UPBs were commonly challenging for the staff of all airlines, whereas some were challenging only for the staff of specific airlines. Inter-airline differences emerged in regard to difficulty and staff competence in managing specific UPBs; this could reflect differences in company policy, training programs, staff support, and authorizations provided. These results suggest procedures by which airlines could improve UPB handling, including the establishment of appropriate service-staff authorizations, passenger education, complaint mechanisms, unruly passenger databases, information feedback loops, and staff training courses on procedures for dealing with different UPBs.

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#### 1. Introduction

The first rule of effective customer-orientated management places customers at the heart of an organization's product—market definition (Nwankwo, 1995), Contemporary research has furnished evidence that customer satisfaction plays a crucial role in maintaining long-term customer-business relationships (Wu, 2007; Slevitch & Oh, 2010). Thus, marketing theorists and practitioners have generally promoted a service policy of 'the customer is always right' and devoted considerable attention to the service encounter itself as occupying a central place in service marketing, and how this impacts upon service differentiation, quality control, delivery systems, and customer satisfaction (Brady & Cronin, 2001). However, as a result of increased popular awareness and ready access to information, some customers actively pursue personal rights and sometimes ignore the basic profit-making position of businesses. These clients can respond to the customer-oriented initiatives of the business in unanticipated and dysfunctional ways that lead to failed service encounters between the parties. In

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this regard, marketing theorists have begun to explore and describe the activities and motivations of such 'deviant' or 'dysfunctional' customer behaviors (Bitner, Booms, & Mohr, 1994; Fullerton & Punj, 2004; Harris & Reynolds, 2004; Reynolds & Harris, 2009).

From a practical point of view, air transport passengers whose mental or physical states present a safety or health hazard or risk to other passengers, employees or property, or who might materially affect the comfort of any other persons either at the check-in counter, at the gate or on board aircraft, are considered unruly passengers (ITF, 2000; Malaysia Airlines, 2009; Cathay Pacific Airways, 2010; China Airlines, 2010). To establish effective mechanisms for dealing with problems related to unruly passengers in front-line service encounters, in September 2009 the International Air Transport Association (IATA) proposed that the existing international legal regime should be revisited with a view to addressing apparent flaws relating to the lack of jurisdiction and enforcement mechanisms at the 34th Session of the International Civil Aviation Organization (ICAO) Legal Committee (ICAO, 2009).

Front-line service delivery systems of air transportation can be generally divided into airport passenger service and in-flight service. Airport passenger service covers the range of services and interactions from passenger check-in at the airport to completing boarding (including the check-in desk, assistance with customs clearance, boarding gate, lost and found, ramp service, load control and premier lounge) (Yang & Tseng, 2010). In-flight

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service encompasses passenger boarding to their arrival at the destination airport (including food and beverage service, travel advice, safety reminders and basic medical assistance). The International Transport Workers' Federation (ITF) (2000) noted that disruptive customer behaviors on the ground can be a prelude to disruption in the air. If airport passenger service can effectively screen for unruly passengers who present a potential risk, it should be able to reduce work stress and the safety risk to in-flight service attendants.

Regarding in-flight service, Yang, Wan, and Lee (2010) summarized 16 types of unruly passenger behavior (UPB) in the cabin, and indicated that the most difficult types to be handled are ranked in order as: 'passengers with poor mental condition', 'passengers who conceal or avoid providing important information', and 'passengers under intoxication or inebriation on the plane'. However, very few studies have focused on unruly passengers with regard to airport passenger service.

Among the studies on service recovery and customer complaints, some were conducted to explore the episodes leading to dysfunctional behaviors (Fullerton & Punj, 1993; Gabriel & Lang, 1997; Reynolds & Harris, 2005, 2009), whereas others explored and described the consequences of such behaviors (Harris & Reynolds, 2003). However, few studies have addressed whether the staff are competent to handle UPBs and the types of problem they face in dealing with dysfunctional behaviors. Harris and Reynolds (2003) indicated three main consequences of dysfunctional behavior, namely effects on: (1) employees (long-term psychological and short-term emotional, behavioral, and physical effects), (2) customers (domino and spoilt-consumption effects), and (3) the organization (pervasive indirect and occasional direct financial costs). This led Reynolds and Harris (2006) to argue that customer misbehavior is endemic within the service industry.

Taking the abovementioned concerns into account, the present study was conducted to explore the different types of UPB at the airport, to develop an approach to assess whether the front-line ground staff who have interpersonal exchanges with passengers are competent in handling these dysfunctional behaviors, and to examine the difficulties they encounter in dealing with these situations. This study will help airlines in developing appropriate training programs, work plans and managerial strategies to provide ground staff with the necessary emotional restraint and mechanisms for handling crises.

#### 2. Conceptual framework

## 2.1. Assessment of ground staff's competence and difficulties encountered in managing UPBs

During service provision and interaction with customers, front-line ground staff must adhere to the emotion-display rules established by the relevant organization (employer and/or airport authority) (Grandey, 2000). When ground staff experience common complaints or failed service encounters, they generally abide by established service procedures and proceed with service recovery in order to satisfy customer needs and/or restore customer satisfaction. However, when unruly passengers are encountered, ground staff must disregard their personal views, exert self-control to disguise their emotional responses, and comply with the requirements of the organization. Some ground staff might deal with UPBs easily whereas others might encounter a major challenge based on their different working experience, education and training, staff support, company policies, and authorizations provided by their companies.

The competence of ground staff in managing UPBs is not directly observable or measurable. In psychometrics, this is termed a 'latent

trait' (Embretson & Reise, 2000). Latent traits are commonly explored by means of questionnaires that include appropriate items for respondents to make a set of self-evaluations on the basis of their daily life experiences. Self-perceived competence can be defined as self-efficacy, the belief of an individual in his/her competence to perform and complete tasks successfully (Bandura, 1997). It can be said that perceived competence mimics the expectations of competence, taking into account the determinants of competence. Kruger and Dunning (1999) indicated that perceptions of competence are positively related to actual competence. Accordingly, the self-perceived competence of ground staff could be considered as a reasonable proxy of their actual competence.

Since there was no available questionnaire to follow, we had to design our own questionnaire for this study. Thus, we started our study by assuming that every member of ground staff, k, has his/her unique competence,  $\Theta_k$ , to handle UPBs. This latent trait could be assessed by his/her performance in handling diverse UPBs during airport service encounters. Theoretically, a ground staff member with high competence will perform better in dealing with a greater number of UPBs than will a ground staff member of low competence.

On conducting a survey, items in the questionnaire represent the most common categories of UPB that the respondents (i.e. ground staff in this study) confront when interacting with passengers. Among these items, some are easily dealt with while others present a major challenge. It is assumed here that there is a unique item difficulty value,  $b_i$  (the item parameter), for each item i in this study. Items with higher  $b_i$  value could be regarded as particularly difficult categories of UPB for respondents to manage. Such items comprise the potential passenger behaviors that cause service failure in front-line service encounters and are difficult to resolve even if appropriate service-recovery measures are adopted.

The difference between the person parameter (i.e. competence),  $\Theta_k$ , and the item parameter (i.e. difficulty),  $b_i$ , will determine the response of respondent k in considering his/her own performance on item i. This observed response can then be used to formulate the function of probability to achieve item i, which is determined by the value of  $\Theta_k - b_i$ .

In addition, answers provided by the respondents to specific questions or items are not simply 'yes' or 'no'. An appropriate test must provide flexible answers to permit respondents to express their views regarding different items. For this reason items designed to measure the competence of ground staff in handling UPBs are preferably answered using an ordinal scale that has several levels of judgment (e.g. the five-point Likert scale) (Anderson, Li, & Vermunt, 2007); this requires additional techniques for converting responses into numeric values that can be subjected to statistical analysis.

#### 2.2. Review of Rasch measurement

The Rasch measurement, which can convert ordinal responses onto an 'equal interval scale' measured in logits (log odd units), is considered as an appropriate approach for measuring the latent traits of respondents (Henson, Blandon, & Cranfield, 2010). The Rasch model proposes that answers to a set of items can be explained by two parameters: (1) the respondent's competence (latent trait) in handling UPBs, and (2) the relative level of difficulty of a specific UPB. Both parameters are located on a linear, one-dimensional continuum (Rasch, 1980). The Rasch model is effective in providing estimates of the variables (types of UPB) of interest on an interval scale (Kaipper, Chachamovich, Hidalgo, Torres, & Caumo, 2010), thereby permitting validity testing of psychometric instruments with an objective set of criteria (Juan & Vanessa, 2007; Chang & Yang, 2008).

To simplify the introduction of the Rasch model, we first considered dichotomous responses. The question items are in the form of: 'Can you easily handle the following types of UPB when you experience failed service encounters?' Possible responses are thus either 'yes' or 'no'. A score of 1 is assigned to the response 'yes', while a score of 0 is assigned to the response 'no'. The probability that a respondent k will respond 'yes' for item i is expressed as:

$$P(1|\theta_k, b_i) = \frac{e^{\theta_k - b_i}}{1 + e^{\theta_k - b_i}} \tag{1}$$

The probability that a respondent k will respond 'no' for item i is expressed as:

$$P(0|\theta_k, b_i) = 1 - P(1|\theta_k, b_i) = \frac{1}{1 + e^{\theta_k - b_i}}$$
 (2)

Therefore, the odds ratio that a respondent k can achieve the item i is:

$$\frac{P(1|\theta_k, b_i)}{P(0|\theta_k, b_i)} = e^{\theta_k - b_i}$$
 (3)

and the logarithm of the odds ratio (logit) is as follows:

$$\ln \frac{P(1|\theta_k, b_i)}{P(0|\theta_k, b_i)} = \theta_k - b_i \tag{4}$$

which isolates the parameters of interest.

The parameters of  $\Theta_k$  and  $b_i$  can be estimated from the response odds ratios in the data set using Eq. (4). In addition to dichotomous responses, the Rasch model has been modified to be applicable to polytomous rating scale instruments, such as the five-point Likert scale (Andrich, 1978). The modified Rasch model decomposes a polytomous response into several dichotomous responses, and formulates one multiple-choice ordinal problem by several binary-choice problems. The modified Rasch model assigns  $b_{ix}$  as the value of the item parameter for the rating category x to item i, and assumes that Eq. (1) refers to the probability that respondent k responds to item i with rating category x instead of x-1. In other words, we can model the log odds of the probability that a person responds in category x for item i, compared with category x-1, as a linear function of the person parameter  $\Theta_k$ , and the relative parameter of category x, namely  $b_{ix}$  for item i:

$$\ln\left(\frac{P_{kix}}{P_{ki(x-1)}}\right) = \theta_k - b_{ix} \tag{5}$$

Following Andrich's modification of the Rasch model for a polytomous response, two formulations have been widely adopted in assessing the values of item and person parameters: These are 'rating-scale model' and 'partial-credit model'. The former is used only for instruments in which the definitions of the rating scale are the same for all items; the latter is used when the definitions of the rating scale differ from one item to another (Chang & Yang, 2008).

In Andrich's modified Rasch model, each item i of the partial-credit model has its own threshold  $F_{ix}$  for each category x; therefore,  $b_{ix} = b_i + F_{ix}$  and Eq. (5) becomes Eq. (6) as follows (Wright, 1977):

$$\ln\left(\frac{P_{kix}}{P_{ki(x-1)}}\right) = \theta_k - b_i - F_{ix}$$
(6)

The partial-credit model (Masters, 1982) is used for items in which (1) credit is given for partially correct answers, (2) there is a hierarchy of cognitive demand on the respondents for each item, (3) each item requires a sequence of tasks to be completed, or (4) there is a batch of ordered response items with individual thresholds for each item. In assessing the respondent's competence  $\Theta_k$  to

handle UPBs, it is not necessary to assume that the item rating scales are identical; thus, we suggest that the partial-credit model can be employed for problem formulation in this study.

#### 3. Empirical study

#### 3.1. Focus group discussions for questionnaire design

Evidence relating to the widespread prevalence of dysfunctional customer behavior has drawn the attention of a small but growing number of academics who have provided insights into this phenomenon (Reynolds & Harris, 2009). However, because an attitude scale designed specifically for airline service has not previously been presented in the literature, there was a need to create an appropriate assessment scale to cover all possible failed ground-staff service encounters. Airline carriers with actual experience with this research topic were therefore invited to participate in the 'focus group discussions' (FGDs) (Stewart & Shamdasani, 1990; Soh & Yuen, 2006) regarding the collection of relevant information for the questionnaire design through brain-storming and group interaction.

In practice, this study drew upon civil air transportation statistics from the website of the Taiwan Civil Aeronautics Administration, and assistance was requested from the top three international airlines in terms of market share of available seat kilometers in arranging FGDs, hosted by the researcher, with ground service managers and senior employees. Four participants with at least 10 years of work experience were selected from each airline for three separate FGDs.

The group discussions of these personnel were conducted in three phases. First, in accordance with the planned outline for the FGDs, the researcher proceeded with the meeting and explained the definition and concept of unruly passengers to ensure that the participants fully understood the nature and goals of the research project. Participants were then invited to describe their personal experiences in regard to the most significant events in the past years involving interpersonal exchanges with unruly passengers. The researcher made no critical comments, avoided leading their answers, and only expressed sympathy to encourage the participants to express their views. Finally, a question-and-answer session was arranged during which all of the participants were invited to contribute to the discussion.

FGDs with three individual airlines were conducted, with each meeting lasting for approximately 2 h; the proceedings were recorded. After the meeting, the recording was transcribed into a written record. Furthermore, three participants with personal experience of airport passenger service worked on the transcription and word-by-word interpretation, and translated the views into concrete concepts. These concrete concepts were then assembled and categorized according to their characteristics; highly homogenous concepts were then labeled with easy-to-understand phrases based on their common characteristics. Using the aforementioned procedure, 19 types of UPB during airport service encounter were obtained; these were used to construct the instrument for measuring the perceived competence of ground staff in managing UPBs (Table 1).

#### 3.2. Verification of content validity

To further verify that the UPBs listed in Table 1 could be effectively and comprehensively interpreted as situations typically encountered by ground staff, the content validity ratio (CVR) method developed by Lawshe (1975) was applied to evaluate the appropriateness of the questionnaire and to screen the items. Ten experts (including senior executives of the three concerned airlines)

**Table 1**Instrument for measuring the perceived competence of ground staff in dealing with UPBs.

How competent do you feel in handling the following types of UPB during failed service encounters? Please answer the following statements by checking the most appropriate response (very difficult, difficult, fair, easy, and very easy).

No.	Type of UPB	Item description
V01	Violent speech or behavior	Customers who are impatient, easily angered, are volubly outspoken, and have potentially violent tendencies.
V02	Under the influence of alcohol or drugs	Those who have consumed excess alcohol, or prescription or non-prescription drugs, and who tend to be aggressive and violent.
V03	Crowd stirrer	Those who stir up emotion in the crowd at the scene using provocative language to cause disturbance, interruption or termination of service when there are flight irregularities.
V04	Member of a disadvantaged minority who takes advantage of their status	Excessive reliance on disadvantaged minority status to obtain preferential treatment under airline service provision rules.
V05	Illegal travel broker	Illegal travel brokers (these solicit passengers by using the name of a legitimate travel agency). In some instances airlines are obliged to deal with problems associated with customer disputes caused by broker mismanagement.
V06	Baggage violations	Passengers who carry excess baggage (overweight or too many bags) and refuse to pay additional charges, or who carry prohibited items in cabin baggage in violation of baggage policy.
V07	Customers who threaten to go to the media	When dissatisfied with service, such customers threaten to contact news reporters with the intention of embarrassing the airline or service provider.
V08	Customers who are extremely picky or fussy about services	Customers who are systematically unhappy and fussy about the services provided.
V09	Failure to comply with boarding procedure	Customers who fail to cooperate with the correct boarding procedure for each class of passenger.
V10	Fraudulent baggage claim	Arriving passengers who fraudulently claim that their baggage has been damaged, lost, or interfered with.
V11	Passengers who do not abide by premier	Passengers, for example, who insist on taking food out of the premier lounge, or who invite a travel
	lounge rules	companion into the premier lounge who is not entitled to use the lounge.
V12	Selfish, devious and manipulative customers	E.g. customers who exploit minor anomalies to exert pressure on the airline company.
V13	Misuse of social status	Customers who attempt to use their social status (e.g. high authority or wealth) to obtain additional services, privileges, or benefits.
V14	False complaints	Conceal information regarding a failed service encounter, thereby incorrectly attributing responsibility to the airline, with a view to obtaining financial reward.
V15	Misuse/abuse of Frequent Flyer status	A customer who is familiar with airline operations and potential loopholes; for example, uses discounted tickets in situations prohibited by company regulations.
V16	Passengers who collect evidence using digital equipment	Rationally or irrationally, when the service they seek is not immediately provided, such passengers record an entire event with electronic equipment.
V17	Customers who demand to speak to the	Customers who request to see the duty supervisor with the implied intention of intimidating/demeaning the
	duty supervisor	ground staff member.
V18	Sexual predation	Use of inappropriate behavior to harass ground staff, including offensive body language, sexual comments and physical harassment.
V19	Black-listed, red-flagged	Passengers with probable stowaway record(s) or who constitute a security alert (order), and where thorough examination is compulsory.

were invited to examine the suitability of the items with the use of both qualitative and quantitative analyses. In qualitative analysis, experts were asked to note their comments on each item and to correct the item if deemed necessary. In the quantitative analysis, experts were asked: 'Is the investigation target measured by this item essential, useful but not essential, or unnecessary to the construct?' We then evaluated the content validity for each of the 19 items using the formula  $C_i = (N_{\rm ei} - N_{\rm i}/2)/(N_{\rm i}/2)$  developed by Lawshe (1975), where  $C_{\rm i}$  is the expert's evaluation value (i.e., CVR) for the item i,  $N_{\rm ei}$  represents the number of experts who rate item i as 'essential', and  $N_{\rm i}$  represents the number of experts rating the item i. Lawshe suggested a set of minimum threshold values of CVR, as in Table 2, to evaluate whether the item is appropriate. According to the method prescribed by Lawshe (1975), items with a  $C_{\rm i}$  value less than 0.62 are to be eliminated when the number of experts is ten.

The computed results illustrated that items V18 (Sexual predation) and V19 (Black-listed, red-flagged) should be eliminated and the remaining 17 items were retained in the assessment scale. The

**Table 2** Suggested minimum threshold value of  $C_i$  for different number of experts rating each item i.

Number of experts rating the item i	Minimum threshold value of $C_i$					
7	0.99					
8	0.75					
9	0.78					
10	0.62					
11	0.59					

Source: Lawshe (1975).

questionnaires were then distributed to 200 front-line ground staff of each of the three airlines concerned; the completed questionnaires were collected by relevant supervisors. The question items were in the form of: 'How competent do you feel in handling the following types of UPB during failed service encounters?' Five response categories were then designed to reflect the respondents' opinions of the 17 items. These five response categories were coded from 1 to 5 as follows: 1, very difficult; 2, difficult; 3, fair; 4, easy, and 5, very easy. Excluding incomplete questionnaires, 179, 162 and 153 effective respondents were collected successfully from the three airlines A, B and C, respectively.

#### 3.3. Application of Rasch measurement

The competence of ground staff to handle UPBs could vary between airlines. In other words, the relative difficulty of particular items could depend on the airline concerned, for example in view of different ground-staff training programs or differences in the authorizations provided to ground staff to assist them in dealing with UPBs. If so, it is possible that analysis would encounter the different item functioning (DIF) problem, leading to incorrect comparisons (Bond & Fox, 2007); for this reason it was necessary to treat the ground staff of each airline as performing independently regarding their competence in dealing with UPBs. Different Rasch models were therefore applied separately to evaluate the competence of the ground staff of different airlines in handling UPBs.

To determine the reliability and logit values of the item and person measures, as well as the appropriateness of the Rasch assumption, the WINSTEPS 3.58 program (Linacre, 2005) was employed. WINSTEPS helps to deal with polytomous responses by applying the Masters—Andrich modification of the Rasch measurement (Masters, 1982). The estimated parameters and model fit statistics were calibrated via a joint maximum-unconditional -likelihood estimation procedure (Wright, 1996); the estimated results for the three airlines are shown in Table 3. The Rasch measurements fix the average measure of all item parameters at zero logit to provide a comparative basis for the relative measurements on an interval scale.

This analysis revealed that the average values of the person parameters for airlines B and C were greater than zero logit in Table 3, indicating that the respondents had relatively high competence in handling UPBs; only a few items presented a challenge to the ground staff. By contrast, the average value of the person parameter for airline A was less than zero logit, indicating that the ground staff of airline A had a lower average competence, often finding it difficult and arduous to deal with the UPBs that are commonly encountered at airports, and registering lower scores for those items in Table 1.

Reliability is commonly defined as either the consistency of responses to a set of items, or the consistency of scores from the same instrument. Reliability is also the degree to which scores are free from measurement error (Chang & Yang, 2008). The Rasch model has analog reliability estimates for items evaluated and for participant measures, namely, the item reliability coefficient and the person reliability coefficient. These coefficients are similar to the Cronbach's alpha, ranging from zero to one (Wright, 1996; Bond & Fox, 2007); values above 0.80 are generally considered to indicate good reliability (Henson et al., 2010). In this study, the item measures for all airlines were highly reliable (0.96–0.98), and person measures gave a slightly lower but also generally reliable value (0.83–0.90).

The fit statistics of the Rasch model can provide evidence for construct validity. By comparing the expected and observed patterns, the fit statistics aid in quality control and in the identification of data that do not meet the requirements of the model. Two fit statistics were estimated by WINSTEPS, namely the information-weighted fit (Infit) and outlier- sensitive fit (Outfit) (Smith, 1991). The Infit and Outfit are expressed as normalized residuals in Table 3. The Z-standardized fit statistic (Zstd) was previously used to select items at the 0.05 significance level. With regard to the separate models for the three airlines, all Infit and Outfit statistics of the estimated parameters for both persons and items are near zero, implying that the overall validity is acceptable for each model.

#### 4. Findings and interpretation

#### 4.1. Grouping of the items

To refine the analysis and its implications for proper management, the three panelists introduced in Section 3.1 were asked to group the 17 types of UPB based on their similarities and

**Table 3**Model estimations and fit statistics obtained from Rasch measurements.

	Item n	neasure		Person measure			
Airline	A	В	С	A	В	С	
Number of observations	17	17	17	179	162	153	
Mean of measure	0.00	0.00	0.00	-0.20	0.17	0.13	
Mean of model standard error	0.07	0.07	0.07	0.39	0.41	0.43	
Mean of infit Zstd	0.00	-0.10	-0.10	-0.10	-0.10	-0.10	
Mean of outfit Zstd	0.10	0.00	-0.10	0.00	-0.10	-0.10	
Reliability	0.97	0.96	0.98	0.83	0.87	0.90	

differences. During this process, if all panelists concurred regarding the grouping of a particular item, the classification result was accepted. In cases of difference of opinion a face-to-face discussion was conducted to resolve conflicts and adjust the categorizations accordingly. This process was repeated until a clear consensus emerged, with each group of behaviors sharing common features that were distinct from the other categories. This resulted in classification of the 17 items into six categories (Table 4).

#### 4.2. Findings from item parameters

The separate estimates of individual item parameters for the three major airlines are shown in Table 5. The first column for each airline represents the estimated parameter of  $b_i$  for the ith item of UPB. The lower the  $b_i$  value is, the easier the ith item will be. By contrast, the higher the  $b_i$  value is, the more difficult the ith item will be. Using airline A as an example, V06 had the highest  $b_i$  value (1.04 logits) and thereby appears to be the most difficult UPB to handle, whereas V03 has the lowest  $b_i$  value (-1.68 logits) and appears to be the easiest UPB to manage.

The second and third columns for each airline represent the mean square (Mnsq) and Z-standardized (Zstd) Infit statistics. The fourth and fifth columns represent Mnsq and Zstd of Outfit statistics. These statistics are used to examine the validity of each item. Smith, Schumacker, and Bush (1998) indicated that if the Mnsq statistic for an item is between 0.75 and 1.3 or the Zstd statistic is between -2 and 2, the item does not significantly deviate from the Guttman scale assumption of the Rasch model (Bond & Fox, 2007). Thus, from Table 5, we could deduce that the Infit statistics and Outfit statistics of all 17 items for the three airlines met this criterion. Our data therefore appear to fit the Rasch models well.

Regarding the difficult items ( $b_i$  value greater than zero logit) perceived by the ground staff of airlines A, B and C, some items were found to be major challenges for staff of all three airlines (e.g. V01, V02, V08, V16 and V17). However, some items present particular difficulties for the staff of specific airlines (e.g. V06, V13). This complicates interpretation of the overall results, and reformulation of the study results is required before systematic comparison can be made across the three major airlines. Thus, the items whose  $b_i$  value is higher than zero logit are highlighted in Table 5 to show that they are recognized by respondents as the

**Table 4** Groupings of UPBs.

Group	No.	Item title
I. Behaviors affecting	V04	Members of disadvantaged minority who take
the company's		advantage of their status
rights and benefits	V05	Illegal travel broker
	V13	Misuse of social status
	V15	Misuse/abuse of Frequent Flyer status
II. Behavior causing	V01	Violent speech or behavior
service to be	V02	Under the influence of alcohol or drugs
interrupted	V03	Crowd stirrer
	V08	Customers who are extremely picky or fussy about services
III. Enlarge the scope	V07	Customers who threaten to go to the media
of the event by	V16	Passengers who collect evidence using digital
causing trouble		equipment
intentionally	V17	Customers who demand to speak to the duty
· ·		supervisor
IV. Baggage-related	V06	Baggage violations
	V10	Fraudulent baggage claim
V. Selfish and	V12	Selfish, devious and manipulative customers
devious	V14	False complaints
VI. Non-compliance	V09	Failure to comply with boarding procedure
with company	V11	Passengers who do not abide by premier
regulations		lounge rules

**Table 5**Estimates of item parameters for the three major airlines

Group	Item	Item Airline A			Airline B					Airline C						
			$b_{\rm i}$	Infit		Outfit		$b_{\rm i}$	Infit		Outfit		$b_{\rm i}$	Infit		Outfit
			Mnsq	Zstd	Mnsq	Zstd		Mnsq	Zstd	Mnsq	Zstd	_	Mnsq	Zstd	Mnsq	Zstd
I	V04	0.14	0.85	-1.50	0.85	-1.50	0.89	1.00	0.00	0.99	-0.10	-0.55	0.84	-1.50	0.83	-1.50
	V05	0.50	0.88	-1.20	0.89	-1.10	0.89	1.00	0.00	0.99	-0.10	-0.55	0.84	-1.50	0.83	-1.50
	V13	-0.70	0.98	-0.20	1.00	0.00	-0.54	1.06	0.60	1.06	0.60	0.66	0.84	-1.60	0.82	-1.70
	V15	1.30	0.95	-0.50	0.96	-0.40	0.33	1.01	0.10	1.01	0.10	0.18	1.05	0.50	1.00	0.10
II	V01	0.35	1.08	0.90	1.11	1.10	0.00	1.14	1.30	1.19	1.70	0.33	1.00	0.10	1.08	0.80
	V02	0.28	1.00	0.10	1.01	0.10	0.17	0.87	-1.30	0.87	-1.20	1.50	0.98	-0.10	0.98	-0.10
	V03	-1.68	1.00	0.10	1.04	0.40	-1.11	1.17	1.60	1.24	2.00	-0.23	1.01	0.10	1.03	0.30
	V08	0.12	1.00	0.10	1.01	0.20	0.17	0.87	-1.30	0.87	-1.20	1.50	0.98	-0.10	0.98	-0.10
III	V07	-0.47	1.11	1.70	1.11	1.20	0.67	0.92	-1.00	0.88	-0.90	0.62	0.98	-0.20	0.95	-0.20
	V16	0.95	1.03	0.40	1.06	0.50	0.67	0.92	-1.00	0.88	-0.90	0.62	0.98	-0.20	0.95	-0.20
	V17	0.98	1.03	0.40	1.07	0.50	0.67	0.92	-1.00	0.88	-0.90	0.62	0.98	-0.20	0.95	-0.20
IV	V06	1.04	0.94	-0.70	0.95	-0.50	-0.28	0.93	-0.60	0.93	-0.60	-0.43	1.09	0.80	1.06	0.50
	V10	-0.07	0.97	-0.20	0.96	-0.30	-0.28	0.93	-0.60	0.93	-0.60	-0.43	1.09	0.80	1.06	0.50
V	V12	-0.04	1.08	0.90	1.08	0.80	-1.37	0.96	-0.40	1.00	0.00	-2.13	0.92	-0.70	0.88	-0.70
	V14	-0.35	1.03	0.40	1.04	0.40	-1.37	0.96	-0.40	1.00	0.00	-2.13	0.92	-0.70	0.88	-0.70
VI	V09	0.37	1.06	0.70	1.07	0.70	0.50	1.18	1.60	1.18	1.60	-0.03	1.14	1.30	1.13	1.20
	V11	-0.10	0.94	-0.60	0.94	-0.60	0.00	1.09	0.80	1.08	0.70	0.44	1.20	1.80	1,22	1.90

Note: (1) The highlighted regions indicate the difficult items ( $b_i$  value $\geq 0$  logit) perceived by the ground staff;(2) Behavior under Group (I) Affecting company's rights and benefits, (II) Causing service to be interrupted, (III) Enlarging the scope of the event by causing trouble intentionally, (IV) Baggage-related, (V) Selfish and devious, and (VI) Non-compliance with company regulations.

more difficult situations to handle. The distributions of these highlighted items in the six UPB groups show that:

- (1) Group I (Behaviors affecting company's rights and benefits). The ground staff of both airlines A and B cited V04 (Members of disadvantaged minority who take advantage of their status) and V05 (Illegal travel broker) as more difficult UPBs to handle. The respondents of both airlines B and C considered V15 (Misuse/abuse of Frequent Flyer status) to be difficult to manage. Airline C also cited V13 (Misuse of social status) as difficult to deal with. Harris and Reynolds (2003) suggested that UPBs can negatively affect outlet profit and sales growth, as well as have a knock-on effect on employee profit-related bonus schemes. In other words, if ground staff are unable to prevent the UPBs from having a negative financial impact upon the company, this would be likely to adversely affect future service provision and potentially lead to an increase in transaction costs.
- (2) Group II (Behavior causing service to be interrupted). Airlines A, B and C all agreed that V01 (Violent speech or behaviors), V02 (Under the influence of alcohol or drugs) and V08 (Customers who are extremely picky or fussy about services) are the more difficult items to handle in this group. Harris and Reynolds (2004) defined those customers who intentionally and overtly act in an aggressive and violent manner, and who can emotionally or physically harm a front-line employee in order to satisfy non-financial motives, as 'physical abusers', and considered that their behaviors ranged on a continuum from the mildly injurious and degrading to severely injurious acts. Furthermore, Harris and Reynolds (2003) also pointed out that adverse impact of unruly passengers could extend to (a) violence towards an employee, and (b) damage to employee personal property.
- (3) Group III (Enlarge the scope of the event by causing trouble intentionally). V16 (Passengers who collect evidence using digital equipment) and V17 (Customers who demand to speak to the duty supervisor) are items that staff of all three airlines considered difficult to handle. Moreover, airlines B and C considered V07 (Customers who threaten to go to the media) difficult to handle. Although the service-quality literature underlines that it is important for service agents to maintain courtesy at all times, the literature emphasizes that managing UPBs can have a major negative emotional impact upon service

- staff (Bailey & McCollough, 2000). Regulations issued by organizations generally require ground staff to project positive emotion when interacting with customers. However, whether on the surface or repressed, long-term emotional dissonance can cause emotional exhaustion, depersonalization and reduced personal accomplishment (Hobfoll & Shirom, 2001). When proper back-up from internal or external resources is lacking, ground staff can experience reduced work efficiency, burnout, or can feel it necessary to leave their employment (Brotheridge & Lee, 2002).
- (4) Group IV (Baggage-related). Only airline A considered V06 (Baggage violations) a difficult item to handle. The other two airline companies considered that all items in this group were relatively easy to handle.
- (5) Group V (Selfish and devious): No item in this group was difficult to handle for airlines A, B and C.
- (6) Group VI (Non-compliance with company regulations). Airlines A and B considered that V09 (Failure to comply with boarding procedure) was a difficult item to handle, and airlines B and C considered V11 (Passengers who do not abide by premier lounge rules) as being difficult to handle. Although these two items might not affect flight security directly, however, if passengers' expectation of service exceeds the authority given to the ground staff by the company, the ground staff will be forced to find a balance between insistence and compromise.

#### 4.3. Item—person map for each airline

The item and person parameters were subjected to logarithmic transformation along a logit scale, in which the difference between the item and person estimates has a consistent meaning (Chang & Yang, 2008; Yang, Tsou, & Chen, 2011). The item—person map (Fig. 1) produced by the WINSTEPS program, which jointly plots the values of all item and person parameters, provides an overall visual representation of construct coverage that aids in the interpretation of the distribution of item calibration estimates, gaps in the measurement continuum, and population targeting (Handley, Warholak Jackson, & Jackson, 2008). The field on the left of the map indicates the distribution of respondents' perceived competence in handling UPBs; their different degrees of competence are

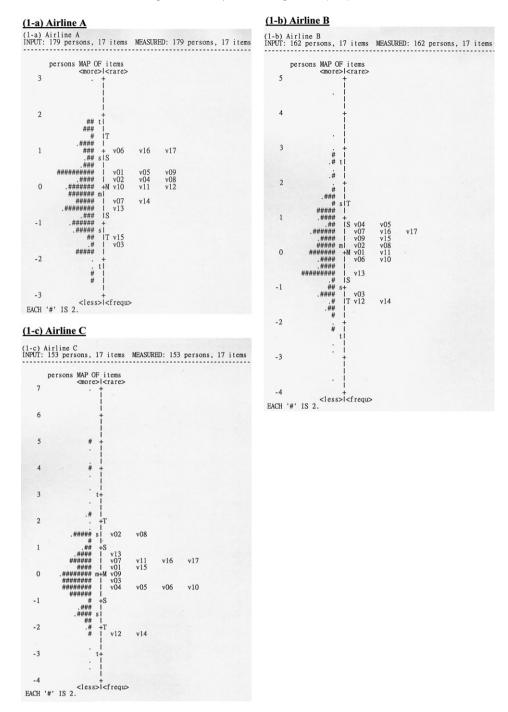


Fig. 1. The item-person maps for three major airlines.

ranked from top to bottom (from high to low competence). The field on the right of the map orders item-management difficulty; the higher an item is located on the vertical axis the greater the challenge it presents to ground staff. In Fig. 1, each symbol "#" represents two respondents and "." represents one respondent. The vertical dash line and the leftmost figures represent the common logit scale of respondent's competence and item difficulty. The uppercase letters "M", "S" and "T" on the right side of the dash line represent the "mean", "one standard deviation" and "two standard deviations" of item difficulty estimates, respectively. The lowercase letters "m", "s" and "t" on the left side of the dash line represent the "mean", "one standard deviation" and "two standard deviations" of respondent's competence estimates, respectively. The figures with

the letter "V" at the right side of the vertical dash line represent item numbers in Table 5.

Because person and item parameters are both relative, to the mean value of all item parameters is generally anchored at zero, thereby providing a comparative rating for all items deviating from the mean. The item—person maps can then be used to assess the overall relative levels of item difficulty.

If the ground staff member and item are located at the same level on the item—person map, the ground staff member will have the probability of 0.5 to handle the UPB corresponding to this item with ease. If the competences of most respondents are located at levels upper than the difficulty measure of a specific item, it implies that this item is considered relatively easy to manage. For example,

few respondents of airlines B and C felt that items V12 (Selfish, devious and manipulative customers) and V14 (False complaints) were major problems. By contrast, most ground staff of airline A perceived that V06 (Baggage violations), V16 (Passengers who collect evidence using digital equipment) and V17 (Customers who demand to speak to the duty supervisor) were relatively difficult to handle; airline B's respondents perceived V04 (Members of disadvantaged minority who take advantage of their status) and V05 (Illegal travel broker) difficult to manage, whereas airline C's respondents perceived that V02 (Under the influence of alcohol or drugs) and V08 (Customers who are extremely picky or fussy about services) were difficult to handle.

The item—person information provided in Fig. 1 allows several conclusions to be reached, summarized below:

- (1) Airline A. Of the eight items with negative logit values that airline A's respondents consider to be easier to handle, items V03 (Crowd stirrer) and V15 (Misuse/abuse of Frequent Flyer status) are located significantly lower than the mean. By contrast, of the nine items with positive logit values that are relatively difficult to handle and represent failed service encounters for ground staff (i.e. V02, V04, V08, V01, V05, V09, V06, V16 and V17), the three most difficult scenarios were items V06 (Baggage violations), V16 (Passengers who collect evidence using digital equipment) and V17 (Customers who demand to speak to the duty supervisor).
- (2) Airline B. Of the six items with negative logit values that airline B's respondents consider to be relatively easy to handle, items V03 (Crowd stirrer), V12 (Selfish, devious and manipulative customers) and V14 (False complaints) are located close to the two sample standard deviations (T) below mean item measure (M), and few respondents considered these three items to be difficult to handle. By contrast, of the 11 items with positive logit values which concentrated on the range between item mean measure (M) and one sample standard deviation (S), items V04 (Members of disadvantaged minority who take advantage of their status) and V05 (Illegal travel broker) were the most difficult items; only 27% of respondents considered these to be easy to handle.
- (3) Airline C. There are eight items with negative logit values. Of these, only items V12 (Selfish, devious and manipulative customers) and V14 (False complaints) are located significantly below the positions of most ground staff. Moreover, the two items located at the bottom of the item—person map are the same as for airline B, indicating that ground staff do not consider these two items difficult to handle. For the nine items with positive values that airline C ground staff found relatively difficult to handle, items V02 (Under the influence of alcohol or drugs) and V08 (Customers who are extremely picky or fussy about services) are the two most difficult items; few ground staff felt competent in dealing with them.

As shown in the item—person maps for the three airlines, staff of all three airlines considered that items V01, V02, V08, V16 and V17 were particularly challenging. These include:

- (1) V16 and V17. Group III items V16 (Passengers who collect evidence using digital equipment) and V17 (Customers who demand to speak to the duty supervisor) share a common feature in that, based on game theory, unruly passengers seek to influence respondents by employing threatening tactics such as evidence collection or complaints, and with a view to forcing staff members to react and/or to yield to their requests.
- (2) V1, V2 and V8. These three items, V1 (Violent speech or behavior), V2 (Under the influence of alcohol or drugs) and V8

(Customers who are extremely picky or fussy about services), belong to Group II. Although current rules and regulations clearly prohibit interference with, threatening, intimidation, or assault of staff, and forbid any behavior likely to compromise order and discipline within the airplane (e.g. ICAO Doc 8565-LC/152-1, FAR 91.11, The Air Navigation Order, 1995), the number of cabin abnormal incidents (CAIs) is increasing rather than decreasing (ITF, 2000; Rhoden, Ralston, & Ineson, 2008; ICAO, 2009). The behavior of those affected by alcohol or drugs or those who find fault with service, might not appear to violate the law during check-in/boarding and/or check/transit prior to embarkation, but could be a sign of a potential threat to subsequent order and security in the passenger cabin. If ground staff fail to identify or filter out these unruly passengers it is likely that they will go on to cause further trouble once they are inside the aircraft.

#### 4.4. Person competence for different demographic characteristics

The Rasch model also helps us to estimate the person parameter (i.e. his/her competence)  $\Theta_k$  of each respondent. Before evaluating self-rated competence in handling unruly passengers according to the demographic characteristics of the respondents we first examined whether the respondent's responses fit the Guttman scale assumption of the Rasch measurement. In this analysis 11.6% of the respondents were excluded from further analysis because their estimated competence was outside the  $\pm 2$  Zstd tolerance limits of Infit/Outfit statistics (Smith, 1991). We then applied independent-sample t tests and one-way ANOVA to determine if demographic characteristics are a significant determinant of estimated competence. The statistical significance of the mean differences between groups for each demographic characteristic was further tested by the Duncan post-hoc comparison method; the results are shown in Table 6.

- (1) Gender and marital status: Neither the gender nor marital status of ground staff correlated with their competence in managing UPBs.
- (2) Age: There was a significant correlation between age and competence, and older ground staff were more competent in handling different types of unruly passenger than were younger staff
- (3) Work experience: Experienced ground staff were consistently more competent at dealing with UPBs for all the three major airlines.
- (4) Education: The three airlines investigated in this study are all transnational enterprises and all their front-line employees have college/university-level education, and a proportion of them have master's level education. There was no significant difference in competence between the two levels of education.
- (5) Job title. Ground staff with higher job titles were found to have greater competence in dealing with unruly passengers.
- (6) Annual income. Competence was found to correlate with income, and staff with higher incomes had a greater competence in dealing with UPBs. Annual income also correlated with job title and, for all three airlines, managers and deputy managers with higher incomes had the highest competence in dealing with UPBs.

#### 5. Discussion

Based on the study results obtained from the ground service managers through FGDs, as well as from the responses of front-line staff, this study has identified several important issues regarding staff competence in dealing with UPBs. These issues have implications for the development of training programs, work plans and

**Table 6**Estimated competence broken down according to demographic characteristics of the respondents.

Demographic characteristic		Airline A		Airline B		Airline C		
		Mean	Rank	Mean	Rank	Mean	Rank	
Gender	a. Male	-0.23	ND	0.15	ND	0.12	ND	
	b. Female	-0.18		0.19		0.16		
Age (yr)	a. Under 20	-0.48	c > b > a	0.11	c = b > a	0.07	c > b > a	
	b. 31-40	-0.16		0.21		0.14		
	c. 41-50	0.08		0.24		0.21		
Marital status	a. Married	-0.22	ND	0.17	ND	0.12	ND	
	b. Single	-0.18		0.18		0.14		
Work experience	a. Under 1 yr	-0.49	c=d>b>a	0.06	d > c > b > a	0.08	d > c > b > a	
	b. 1–5 yr			0.11		0.12		
	c. 6–10 yr	0.02		0.19	1	0.15		
	d. >10 yr	0.03		0.32		0.21		
Education	b. College/University	-0.20	ND	0.18	ND	0.13	ND	
	c. Master's	-0.19		0.16		0.12		
Job title	a. Part—time employee	-0.51	d > c > b > a	0.07	d > c > b > a	0.07	d > c > b > a	
	b. Full-time employee	-0.31		0.13		0.11		
	c. Supervisor	-0.01		0.21		0.13		
	d. Manager/Deputy manager	0.09		0.29		0.20		
Annual income (USD)	a. Under 7000	-0.49	d > c > b > a	0.06	d > c > b > a	0.08	d > c = b > a	
	b. 7000-15000	-0.32		0.13		0.11		
	c. 15,001-25,000	0.00		0.20		0.13		
	d. Above 25,000	0.11		0.31		0.22		

Note: ND, no significant difference when  $\alpha = 0.05$ ; Mean: mean of estimated competence in dealing with unruly passengers; highlighted boxes denote respondents with higher competence.

managerial strategies to provide ground staff with appropriate emotional adjustment, and to establish preventive mechanisms and emergency-response techniques for failed service encounters.

### 5.1. Inter-airline differences in staff competence in dealing with UPBs

The mean values of ground staff competence to handle UPBs for airline B (0.17 logit) and airline C (0.13 logit) were significantly higher than those for airline A (-0.20 logit). This indicates that, even though all these three airlines are multinational corporations with route networks covering the globe, the ground staff of airlines B and C are more confident in dealing with UPBs than those of airline A. In addition, the ranking of item difficulty differed between the airlines. It is possible that the differences in corporate policies, organizational culture, educational training, and other factors could differentially prepare ground staff for dealing with UPBs. It is recommended that airlines should periodically review the competence of their staff in handling failed service encounters with a view to identifying weaknesses and taking appropriate action to improve service performance.

### 5.2. Senior ground staff members are more competent to handle UPBs

Ground staff members, who are older, with more experience, or with more senior positions, were found to have significantly greater competence in dealing with UPBs. Because all three parameters (age, work experience, job position) are highly correlated, one can conclude that senior ground staff members are generally more competent in handling UPBs. Although junior staff could be instructed to ask senior ground staff to manage troublesome UPBs, it is suggested that senior staff should participate in establishing training programs designed to equip more junior staff with appropriate skills in dealing with UPBs.

#### 5.3. Common difficult items for ground staff, and their implications

For all three airlines the major challenging UPBs, as highlighted in Table 5, are concentrated in Group II (Behavior causing service to be interrupted, i.e., V01, V02, V08) and Group III (Enlarge the scope of the event by causing trouble intentionally, i.e., V16, V17). These items share the feature that there is a cognitive gap between the service providers and the customers regarding the quality of service provided by the company. The negative behavior of some unruly passengers can affect staff services, and staff of all three airlines viewed unruly passengers' intent on causing disturbance as a major challenge. For items V01 (Violent speech or behaviors), V02 (Under the influence of alcohol or drugs) and V08 (Customers who are extremely picky or fussy about services) in Group II, companies might consider informing passengers of the regulations related to boarding and documentation, through tour agents and various measures prior to departure, emphasizing the importance of boarding order, passenger responsibility, and the consequences of failing to comply with regulations, thereby avoiding misunderstandings arising as a consequence of customer unfamiliarity with administrative procedures. Furthermore, to reduce failed service encounters, front-line service design might include error-proofing measures, for example by simplifying the forms and the routes of service provision. Concerning items V16 and V17 in Group III, in serious incidents senior ground staff or service managers could take over the failed service encounter in order to avoid interruption of customer service provision.

#### 5.4. Establish a standard operating and auditing procedure

The four items in Group I (Behaviors affecting the company's rights and benefits), V04 (Members of disadvantaged minority who take advantage of their status) and V05 (Illegal travel broker) were found to be challenging USBs for staff of both airlines A and B; V15 (Misuse/abuse of Frequent Flyer status) was cited by staff of both airlines B and C; whereas only staff of airline C had difficulty in dealing with V13 (Misuse of social status).

In Group IV (Baggage-related), only the staff of airline A had difficulty in dealing with V06 (Baggage violations); staff of the other two airlines felt themselves to be competent in handling this type of UPB.

As for Group VI (Non-compliance with company regulations), V09 (Failure to comply with boarding procedure) was the most common challenge for staff of airlines A and B, whereas V11 (Passengers who do not abide by premier lounge rules) was deemed problematic by staff of airlines B and C.

Interestingly, many items in Groups I, IV and VI are within the internal control of the company concerned and relate to organizational regulations or service procedures. Why do some airlines have greater difficulty in handling these types of troublesome unruly passenger? This study suggests that companies should examine their business procedures, establish clear standardized guidelines for service provision relating to UPBs, and put in place quality-control mechanisms to ensure not only that the companies' rights and benefits are not jeopardized but also that the workload and emotional well-being of their staff are not compromised by UPBs.

#### 5.5. Staff flexibility and discretion, and complaint mechanisms

For the items in Group III (Enlarge the scope of the event by causing trouble intentionally), when customers encounter difficulties they are always eager for an immediate solution. However, front-line staff members are often not authorized to provide the service requested, and are restricted to acting in accordance with 'regulations', which can exacerbate customer complaints. Thus, in the service provision standardization mentioned in Section 5.4, organizations could specify how much flexibility front-line staff members have in dealing with challenging situations, and the extent to which they can meet individual passenger needs and/or solve problems (Rust, Zahorik, & Keiningham, 1996). A complaint mechanism incorporated into the service provision could also help ground staff to provide more information to the passengers and propose appropriate remedies.

#### 5.6. Establishment of an unruly passenger database

With regard to unruly passengers with a history of abnormal conduct, and depending on the severity and/or frequency of their anomalous behavior, companies can refuse further service provision or, alternatively, monitor their behavior with a view to taking appropriate precautionary or remedial action. After careful assessment, those with serious negative behavior can be permanently barred from traveling with one or more airlines. Airlines can also refuse to take passengers whose behavior suggests they are likely to negatively affect the safety and comfort of other passengers and crew on board the plane. A further category includes passengers who are not an immediate threat, but who are considered as special-alert passengers. Their previous irregular behaviors are recorded in the CRS (Computerized Reservation System) and DCS (Departure Control System) to forewarn staff who, nonetheless, should not immediately treat these passengers differently because this could lead to customer complaints.

## 5.7. Provision of free alcoholic beverages; communications and information feedback between cabin crew and ground staff

Yang et al. (2010) previously listed 16 types of cabin UPBs. When compared with the 17 types of airport UPBs explored in the present study, five common items are found. These are V01 (Violent speech or behaviors), V02 (Under the influence of alcohol or drugs), V03 (Crowd stirrer), V12 (Selfish, devious and manipulative customers) and V13 (Misuse of social status). Regarding V02, consumption of alcoholic beverages tends to reduce blood oxygen supply; the effects of alcohol are exacerbated because cabin pressure at cruise altitude is below mean sea-level pressure, and alcohol consumption can therefore negatively affect emotional condition and health. Airlines should carefully evaluate the timing and frequency of

providing free alcoholic beverages in the aircraft and/or in airport premier lounges, or introduce charges for alcoholic beverage, with a view to reducing consumption.

For the remaining four items (V01, V03, V12 and V13), organizations can invite ground staff and cabin crew to share their experiences, both upstream and downstream of service delivery, to maximize information feedback. King and Wan (2010) pointed out that employee job perceptions can directly affect the outcome of service performance. Airlines can also reinforce the emotional intelligence skills of their employees by means of appropriate training, with a view to avoiding overload resulting from chronic emotion suppression, which can result from complying with rules governing emotional demeanor. Such overload can lead to emotional exhaustion and overextension, depersonalization, reduced personal accomplishment, burnout, and even selfalienation (Grandey, 2003).

#### 6. Concluding remarks

Customer complaints provide opportunities for enterprises to improve the service they provide, and companies do not regard every customer who files a complaint as an unruly passenger. However, if a customer is unreasonable and crosses a dividing line, or based on reasonable assessment their customer lifetime value is significantly lower than the cost of providing services to them, then the customer concerned may be deemed unworthy of the establishment or maintenance of long-term relationship (Janelle & Claus, 2008)

This study offers the following proposals for dealing with UPBs: (1) record frequent abnormal behaviors and complaints of specific unruly passengers, as well as the recovery measures and costs, in order to establish a list of barred passengers or service alerts; (2) develop a passenger profiling system, based on travel documents, appearance, behaviors and other characteristics of the UPB passenger group, and use this as a basis to develop riskidentification skills that can be incorporated into training courses for ground staff; (3) design feedback systems for both employees and passengers to assist managers in identifying ongoing and potential problems in the service procedure and to take decisions concerning how best to resolve such issues, in order to avoid repeated service failure as a result of inadequacies in company policy; (4) provide employees with the authority to act with flexibility and discretion in demanding situations, thereby permitting them to offer a better overall customer service (King & Wan, 2010), and to ensure that supervisors place employee well-being above operational/financial considerations; (5) establish appropriate training courses, including experience-sharing by senior employees and, for example, instruction via role-playing, to equip junior employees with the skills required for dealing with UPBs, including communication skills, EQ (emotional intelligence) training, and familiarity with the law, to strengthen their professional confidence and commitment to the organization.

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