



The TCRC Report on Trends in the Flight Catering Industry 2008

The Travel Catering Research Centre (TCRC)
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Table of Contents

	Page
Preface.....	iv
Executive Summary.....	v
I. Introduction	
The Survey.....	1
The Respondents.....	1
II. Findings and Discussion	
A. Major External Issues	
1. Level of Concern.....	3
a. Analysis by Sectors.....	4
b. Significant Differences between Sectors.....	5
c. Analysis by Regions.....	6
d. Significant Differences between Regions.....	7
2. Level of Impact.....	8
a. Analysis by Sectors.....	9
b. Significant Differences between Sectors.....	10
c. Analysis by Regions.....	12
d. Significant Differences between Regions.....	13
3. Timing of Impact.....	14
a. Analysis by Sectors.....	14
b. Significant Differences between Sectors.....	15
c. Analysis by Regions.....	16
d. Significant Differences between Regions.....	16
B. Major Industry Trends	
1. Level of Involvement.....	17
a. Analysis by Sectors.....	18
b. Significant Differences between Sectors.....	19
c. Analysis by Regions.....	20
d. Significant Differences between Regions.....	21
2. Level of Impact.....	22
a. Analysis by Sectors.....	23
b. Significant Differences between Sectors.....	24
c. Analysis by Regions.....	25
d. Significant Differences between Regions.....	26
3. Timing of Impact.....	27
a. Analysis by Sectors.....	27
b. Significant Differences between Sectors.....	28
c. Analysis by Regions.....	29
d. Significant Differences between Regions.....	30
III. Demographic Data.....	30
IV. Conclusion.....	31

List of Tables and Figures

List of Tables	Page
Table 1. The Top and Lowest Rankings on External Issues of Level of Concern by Sectors.....	4
Table 2. The Statistical Significant Differences on External Issues of Level of Concern by Sectors.....	5
Table 3. The Top and Lowest Rankings on External Issues of Level of Concern by Regions.....	6
Table 4. The Statistical Significant Differences on External Issues of Level of Concern by Regions.....	7
Table 5. The Top and Lowest Rankings on External Issues of Level of Impacts by Sectors.....	9
Table 6. The Statistical Significant Differences on External Issues of Level of Impacts by Sectors.....	10
Table 7. The Top and Lowest Rankings on External Issues of Level of Impacts by Regions.....	12
Table 8. The Statistical Significant Differences on External Issues of Level of Impacts by Regions.....	13
Table 9. The Overall Timing of Impacts of External Issues.....	14
Table 10. The Timing of Impacts of External Issues by Sectors.....	14
Table 11. The Timing of Impacts of External Issues by Regions.....	15
Table 12. The Statistical Significant Differences on External Issues of Timing of Impacts by Sectors.....	15
Table 13. The Statistical Significant Differences on External Issues of Timing of Impacts by Regions.....	16
Table 14. The Top and Lowest Rankings on Industry Trends of Level of Involvement by Sectors.....	18
Table 15. The Statistical Significant Differences on Industry Trends of Level of Involvement by Sectors.....	19
Table 16. The Top and Lowest Rankings on Industry Trends of Level of Involvement by Regions.....	20
Table 17. The Statistical Significant Differences on Industry Trends of Level of Involvement by Regions.....	21
Table 18. The Top and Lowest Rankings on Industry Trends of Level of Impacts by Sectors.....	23
Table 19. The Statistical Significant Differences on Industry Trends of Level of Impacts by Sectors.....	24
Table 20. The Top and Lowest Rankings on Industry Trends of Level of Impacts by Regions.....	25
Table 21. The Statistical Significant Differences on Industry Trends of Level of Impacts by Regions.....	26
Table 22. The Overall Timing of Impact of Industry Trends.....	27
Table 23. The Timing of Impact of Industry Trends by Sectors.....	28
Table 24. The Timing of Impact of Industry Trends by Regions.....	29
Table 25. The Statistical Significant Differences on Industry Trends of Timing of Impacts by Sectors.....	29
Table 26. The Statistical Significant Differences on Industry Trends of Timing of Impacts by Regions.....	30
Table 27. Demographic Profile of the Respondents.....	31

List of Figures	Page
Figure 1. By Sectors Representation of the Respondents.....	2
Figure 2. Office Location of the Respondents.....	2
Figure 3. Overall Level of Concern with External Issues.....	3
Figure 4. By Sector - Hike in oil prices by Level of Concern.....	5
Figure 5. By Sector - Avian flu outbreak by Level of Concern.....	5
Figure 6. By Region - Terrorist attacks in major cities by Level of Concern.....	7
Figure 7. By Region - Hike in oil prices by Level of Concern.....	7
Figure 8. By Region - Avian flu outbreak by Level of Concern.....	8
Figure 9. Overall Level of Impact of External Issues.....	8
Figure 10. By Sector - Climate change by Level of Impact.....	10
Figure 11. By Sector - Hike in oil price by Level of Impact.....	11
Figure 12. By Sector - Higher taxation on air travel by Level of Impact.....	11
Figure 13. By Sector - Increased passenger security measures by Level of Impact.....	11
Figure 14. By Sector - Avian flu outbreak by Level of Impact.....	12
Figure 15. By Region - Avian flu outbreak by Level of Impact.....	13
Figure 16. By Sector - Higher taxation on air travel by Timing of Impact.....	15
Figure 17. By Sector - Increased passenger security measures by Timing of Impact.....	16
Figure 18. By Region - Avian flu outbreak by Timing of Impact.....	16
Figure 19. Overall Level of Involvement with Industry Trends.....	17
Figure 20. By Sector - Increased security management by Level of Involvement.....	19
Figure 21. By Sector Outsourcing of food production by Level of Involvement.....	19
Figure 22. By Sector - Reduction in return catering by Level of Involvement.....	20
Figure 23. By Region - Outsourcing of catering logistics by Level of Involvement.....	21
Figure 24. By Region - Reduction in return catering by Level of Involvement.....	22
Figure 25. Overall Level of Impact of Industry Trends.....	22
Figure 26. By Sector - Increased security management by Level of Impact.....	24
Figure 27. By Sector - Outsourcing of food production by Level of Impact.....	24
Figure 28. By Sector - Reduction in return catering by Level of Impact.....	25
Figure 29. By Region - Increased role of distributors by Level of Impact.....	26
Figure 30. By Sector - Increased concern on food safety and health by Timing of Impact....	30

Preface

This is the second annual report on trends in the flight catering industry. This 2008 survey shows that overall the industry remains concerned about two external pressures - the price of oil and higher taxation on air travel – and their impact on the industry. Concern about climate change and increased security have risen up the agenda this year, whilst terrorism in major cities is of less concern than previously. Generally, airline respondents exhibited a significantly higher level on concern than other industry stakeholders – caterers, food suppliers and non-food suppliers.

With regards trends in the industry itself, in 2007 there was a degree of unanimity about these – of which increased competition was the top issue. This year two other issues take the top spot – increased concern about food safety and health and increase in recycling. However, there is less agreement amongst stakeholders on the relative importance of these. For instance, for airlines it is outsourcing food production that is the key issue.

In the first of these surveys, it was demonstrated that the relative importance of industry issue and trends varies significantly between different stakeholders and regions of the world. This second survey confirms this view, with rankings varying widely from one group to another. The 2008 results also show how dynamic trends can be - even over the short term.

Our thanks to everyone in the industry who completed our survey.

Prof. Peter Jones
June 2008

ITCA Chair Production and Operations Management
Travel Catering Research Centre
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Executive Summary

This report provides a general overview of practitioner's opinions on six external issues and 15 industry trends currently affecting the flight catering industry. The study drew data that was collected through an online survey following the ITCA Trade Show and Conference in Nice, France: February 13-15th, 2008. The basis for data analysis for this study is the sector of the industry and office location of the respondents which represent the four major sectors of the industry from around the world: Europe, America, Asia Pacific, Middle East & Africa, and also four sectors of the industry: airlines, caterers, food suppliers and non-food suppliers.

Major External Issues

- Hike in oil price remains the overall top ranking external issue of concern (3.82), across all sectors and regions in 2008. This was the same case in last year's survey. Also in the overall top rankings are climate change, higher taxation on air travel, increased passenger security measures (3.26).
- Corresponding to this level of concern, the top ranking on overall level of impact is also hike in oil price (4.02). The second highest impact factor is higher taxation on air travel (3.49).
- Across sectors, two external issues of concern have significant differences: hike in oil price and Avian flu outbreak. On degree of impact, there are significant differences of opinions about climate change, hike in oil prices, higher taxation on air travel, increase passenger security measures, and an avian flu outbreak.
- Across regions, three external issues of concern have statistically significant differences: terrorist attacks in major cities, hike in oil prices and avian flu outbreak. But only the impact factor of an avian flu outbreak leads to a difference of opinion.
- Four of six external issues are considered to have immediate impact: hike in oil price, increase passenger security measures, terrorist attacks in major cities and higher taxation on air travel.

Major Industry Trends

- There are two top trends in the industry: increased concerns on food safety and health and increased in recycling (3.7). These are followed by outsourcing all production (3.64).
- Corresponding to this level of concern, increased concerns on food safety and health is the top ranked impact factor (3.55). Also top ranked impacts are increased competition in the airline industry (3.94) and growth in low-cost airlines (3.48).
- Different sectors have a significantly different degree of involvement in increased security management, outsourcing of food production, and reduction in return catering.
- There are significantly different views on the impact of increased security management, outsourcing overproduction, and reduction in return catering.
- Across regions, two industry trends are perceived differently: outsourcing of catering in logistics functions and reduction in return catering. Only the increased role of distributors is statistically significantly different.
- All industry trends are considered by the respondents to have short-term impact within the next two years.

TRENDS IN THE TRAVEL CATERING INDUSTRY SURVEY REPORT

I. INTRODUCTION

This study gathers the opinions of practitioners within the flight catering industry on the external issues and industry trends affecting the industry to provide a general overview. The report consists of four main parts: introduction, findings and discussion and conclusion. This introduction section will provide the background of the study by describing the survey and the respondents for this study. In the finding and discussion section, the overall results are presented. The results of four sectors and four regions will be compared and contrasted; the difference and similarities among the sectors will be highlighted. Afterwards, the top three and lowest two rankings on major external issues and industry trends will be discussed, followed by analysis of any statistical differences among issues/trends. Figures will be depicted for the significant statistical differences. A conclusion is then provided. Lastly, the final section describes the respondents' profile.

The Survey

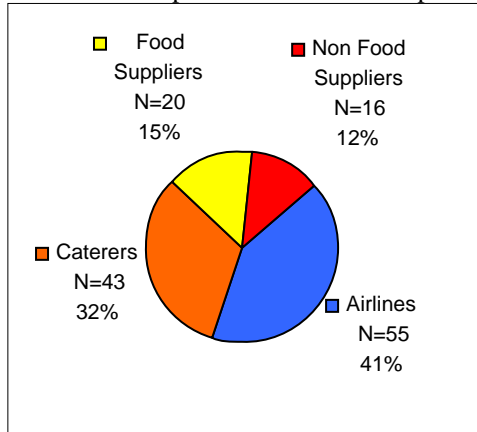
This is a second annual survey conducted on Trends in Flight Catering Industry Survey in relations to the ITCA Trade Show and Conference. The first survey was conducted in ITCA Trade Show and Conference in Cologne, Germany March 7-9th, 2007. Following the ITCA Trade Show and Conference in Nice, France, February 13-15th, 2008, an online survey was made available for ITCA members to participate. The online survey consists of three sections: 1) level of concern/involvements of external issues and industry trends, 2) level of impacts of these external issues and industry trends, and 3) timing of these impacts. In each of the following sections, the findings from these three major parts will be discussed and analyzed.

In the first section of the survey, the respondents were asked how concerned or involved they are with six major external issues and 15 industry trends affecting the travel catering industry, on a scale of 1 (no concern or involvement) to 5 (very great concern or involvement). The second section provides results on the responses in regards to the level of impacts they believe the following will have on the business performance of their company. In this section, the respondents were asked to measure the level of impacts on five point scale ranging from 1 (no extent) to 5 (very great extent). In the third section, the respondents were asked the timing they foresee of these external issues and industry trends in relation to their companies. The findings indicate whether the respondents believe that these issues are to take place short term (less than 2 years) or long term (more than 2 years).

The Respondents

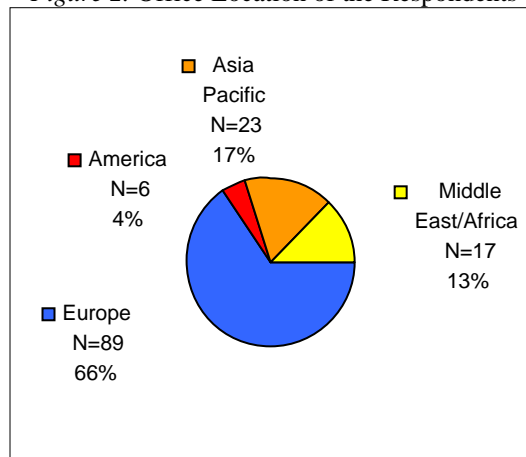
Respondents were asked to indicate what sector of the travel catering industry their company are represented in (i.e. airlines, caterers, food suppliers or non-food suppliers). Figure 1 suggests that all sectors are well represented, thus this enable comparisons between sectors.

Figure 1 Sectors Representation of the Respondents



The geographic profile of the respondents based on their current office location is illustrated in Figure 2. This finding suggests that the respondents are diversely located in all continents around the world, although the majority of respondents are based on the office of Europe, which can be explained by the fact that the survey was conducted at the ITCA Trade Show and Conference in Germany. In addressing the small representation of respondents of North America in this study, a post hoc analysis of unequal variance will be used instead of an analysis of an equal variance, to assure that any differences between the regions are recognized based on the actual number of respondents.

Figure 2. Office Location of the Respondents



The data on sector of the industry and office location of the respondents will be used as a basis for analyzing the results of the survey to achieve an understanding in different perspectives from both sectors and regions.

II. FINDINGS AND DISCUSSION

This section is divided into two main sub-sections as follows:

- Major External Issues.
- Major Industry Trends.

Each section consists of subsections of respondents' level of concern, level of impacts and timing of those impacts. Each of these subsections is considered first from the overall perspective, then from a sectoral viewpoint and then from different regional responses.

A. MAJOR EXTERNAL ISSUES

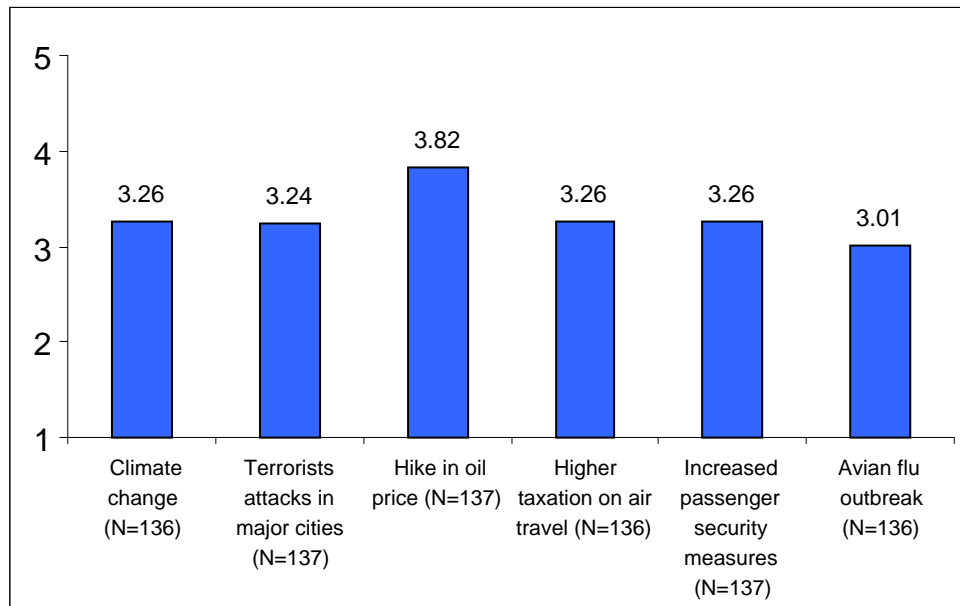
In last year survey, seven major external issues were researched. In this survey, one issue human flu outbreak was considered to not have as significant impact as other external issues to be included in the second survey. Thus, in this survey six major issues were researched:

- Climate change
- Terrorists attacks in major cities
- Hike in oil price
- Higher taxation on air travel
- Increased passenger security measures
- Avian flu outbreak

1. Level of Concern

Overall

Figure 3. Overall Level of Concern with External Issues



This year, the overall result (Figure 3) suggests that hike in oil price (3.82) is regarded as the highest concern within the industry. Hike in oil price was also selected as the highest concern in the first survey in 2007, suggesting that the issue remains to be the main concern for all sectors within the industry. Nevertheless, the second place consists of three external issues (3.26) in this survey: climate change, higher taxation on air travel and increased passenger security measures. Last year respondents placed higher taxation on air travel and terrorists attacks in major cities consecutively on the second and third top ranking.

Climate change was on the second lowest ranking last year, along with human flu outbreak (2.99). However, this year the lowest rankings have been replaced by Avian flu outbreak (3.21) and terrorists attacks in major cities (3.24).

Analysis by Sectors

Table 1. The Top and Lowest Rankings on External Issues of Level of Concern by Sectors

Sectors	Top Rankings	Lowest Rankings
Overall	1. Hike in oil price (3.82) =2. Climate change (3.26) =2. Higher taxation on air travel (3.26) =2. Increased passenger security measures (3.26)	1. Avian flu outbreak (3.21) 2. Terrorists attacks in major cities (3.24)
Airlines	1. Hike in oil price (4.19) 2. Higher taxation on air travel (3.65) 3. Increased passenger security measures (3.56)	1. Avian flu outbreak (3.24) 2. Climate change (3.3)
Caterers	1. Hike in oil price (3.57) 2. Avian flu outbreak (3.38) 3. Terrorists attacks in major cities (3.36)	1. Higher taxation on air travel (3.12) 2. Increased passenger security measures (3.26)
Food Suppliers	1. Hike in oil price (3.6) =2. Higher taxation on air travel (2.85) =2. Terrorists attacks in major cities (2.85)	1. Avian flu outbreak (2.45) 2. Increased passenger security measures (2.66)
Non Food Suppliers	1. Hike in oil price (3.56) 2. Climate change (3.38) 3. Terrorists attacks in major cities (3.19)	1. Avian flu outbreak (2.25) 2. Higher taxation on air travel (2.8)

Top rankings. The findings, as described in Table 1, suggest that hike in oil price is indeed of the main concern for all sectors of the industry. This is also the same case last year. Also similar to last year, airlines and food suppliers are concerned on higher taxation on air travel (respectively at 3.65 and 2.85), whereas all sectors with the exceptions of airlines are concerned on the terrorists attacks in major cities (2.85 - 3.36). In the case of food suppliers this year, the respondents rank higher taxation on air travel and terrorists attacks in major cities in the same rank (2.85).

Lowest rankings. There seem to be a change of importance between Avian flu outbreak and climate change since the last survey. This year, in general respondents deemed climate change to be of more concern compared to Avian flu outbreak. This is especially true for suppliers group. On the other hand, airlines regard both issues to be of least concerns. For caterers, Avian flu outbreak (3.38) is important and has placed it on the top rank. Although higher taxation on air travel is on top rankings for airlines and food suppliers, the issue is in lowest rankings list for non-food suppliers.

Review of general pattern. Last year, some similar concerns were shared between airlines and caterers, and between supplier groups. However, this year that pattern has disappeared, and replaced by concerns on mix issues among the sectors.

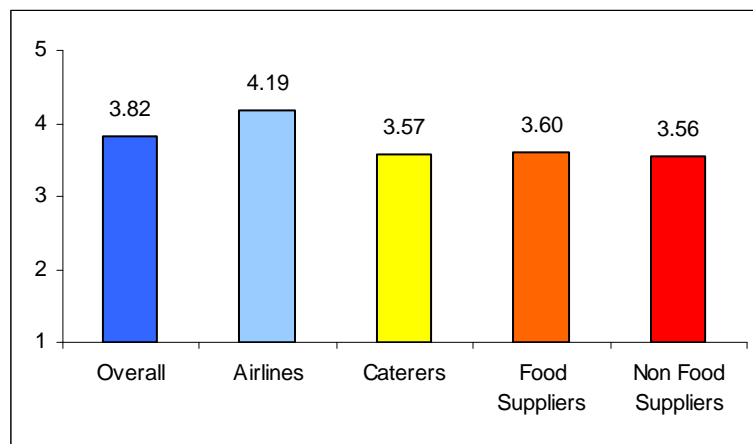
Significant Differences between Sectors

Table 2. The Statistical Significant Differences on External Issues of Level of Concern by Sectors

	External Issues	Sig.	Lower	vs.	Higher
1	Hike in oil prices	0.023	Caterers (3.57)	vs.	Airlines (4.19)
2	Avian flu outbreak	0.001	Non Food Suppliers (2.25)	vs.	Caterers (3.38)
					Airlines (3.24)

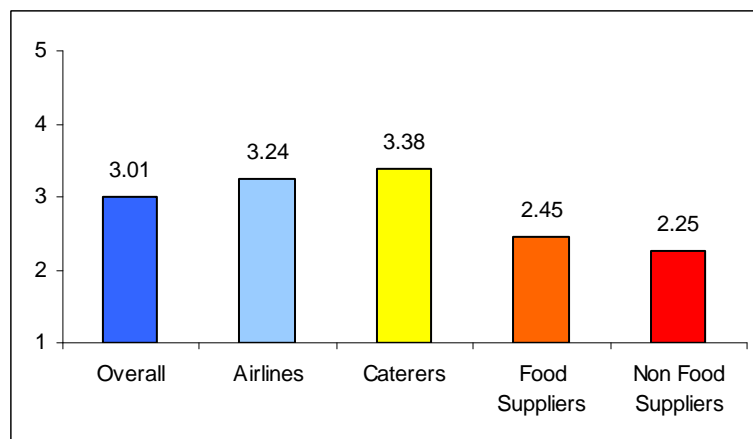
Two external issues, as indicated in Table 2 and depicted in Figures 4-5, have significant statistical differences: hike in oil prices and Avian flu outbreak.

Figure 4. Hike in oil price by Level of Concern



Hike in oil price. A significant difference (Sig: 0.023) is noted between the level of concern of caterers (3.57) and airlines (4.19), suggesting that airlines are significantly more concerned about hike in oil price than caterers.

Figure 5. Avian flu outbreak by Level of Concern



Avian flu outbreak. The statistical analysis (Sig. 0.001) has shown that both caterers (3.38) and airlines (3.24) are significantly more concerned than non food suppliers (2.25) in regards to Avian flu outbreak.

Analysis by Regions

Table 3. The Top and Lowest Rankings on External Issues of Level of Concern by Regions

Regions	Top Rankings	Lowest Rankings
Overall	1. Hike in oil price (3.82) = 2. Climate change (3.26) = 2. Higher taxation on air travel (3.26) = 2. Increased passenger security measures (3.26)	1. Avian flu outbreak (3.21) 2. Terrorists attacks in major cities (3.24)
Europe	1. Hike in oil price (3.65) 2. Climate change (3.21) 3. Higher taxation on air travel (3.2)	1. Avian flu outbreak (2.57) 2. Terrorists attacks in major cities (2.97)
America	1. Hike in oil price (4.67) 2. Avian flu outbreak (4.17) 3. Terrorists attacks in major cities (3.67)	= 1. Higher taxation on air travel (3.5) = 1. Increased passenger security measures (3.5) 3. Climate change (3)
Asia Pacific	1. Hike in oil price (4.33) 2. Avian flu outbreak (3.95) 3. Terrorists attacks in major cities (3.9)	1. Climate change (3.33) 2. Higher taxation on air travel (3.48)
Middle East & Africa	1. Hike in oil price (3.82) 2. Terrorists attacks in major cities (3.71) 3. Climate change (3.47)	1. Increased passenger security measures (3) 2. Higher taxation on air travel (3.29)

Top rankings. As suggested in Table 3, There is an agreement among all regions that hike in oil price is the issue of the highest concern, which is also the case for last year survey, in the following order: America (4.67), Asia Pacific (4.33), Middle East & Africa (3.82) and Europe (3.65). This is also the case for last year survey. Higher taxation on air travel is only regarded to be of major concern by Europe (3.2), whereas terrorists attacks in major cities is placed as second or third top rank by America (3.67), Asia Pacific (3.9), and Middle East & Africa (3.71). Last year, both of these issues are on top rankings for each region. Higher taxation on air travel was placed in the top rankings in 2007 survey by respondents in Europe, America and Middle East & Africa. However, this year only Europe places the issue (3.2) as its top ranking issue.

Lowest rankings. Several issues that were of high concern last year have become issues of lowest concern in this second study. This is particularly true for higher taxation on air travel, followed by terrorists attacks in major cities and Avian flu outbreak. Higher taxation on air travel is one of the lowest rankings for America (3.5), Asia Pacific (3.48) and Middle East & Africa (3.29). This year, agreeing to the overall results, Europe placed terrorists attacks in major cities (2.97) as one of the lowest rankings. Human flu was mentioned to be the lowest ranking issue last year, however, this year the issue has not been mentioned in the top or lowest rankings for any regions.

Review of general pattern. Europe is the one region that adheres to the most to the overall top three and lowest two rankings. America and Asia Pacific share similar patterns, with one exception of increased passenger security measures. Europe and Middle East & Africa share some similarities in terms of their top rankings, but not on their lowest rankings. These results suggest some patterns between groups of regions, compared to last year result in which similarities across regions are more apparent.

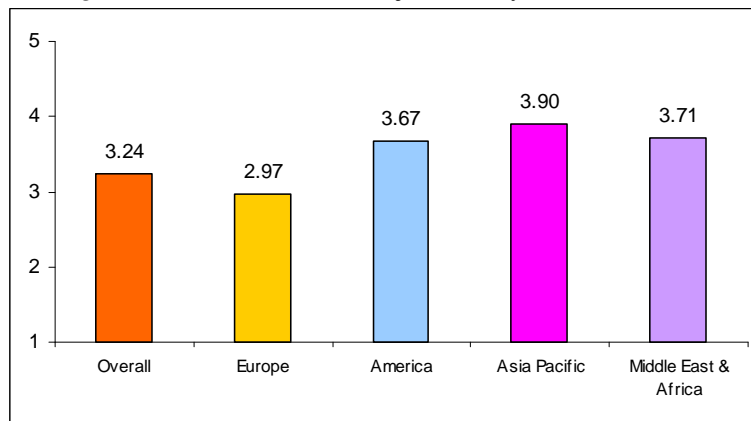
Significant Differences between Regions

Table 4. The Statistical Significant Differences on External Issues of Level of Concern by Regions

	External Issues	Sig.	Lower	vs.	Higher
1	Terrorist attacks in major cities	0.003	Europe (2.97)	vs.	Asia Pacific (3.9)
2	Hike in oil prices	0.009	Europe (3.65)	vs.	Asia Pacific (4.33)
3	Avian flu outbreak	0.000	Europe (2.57)	vs.	Asia Pacific (3.95)

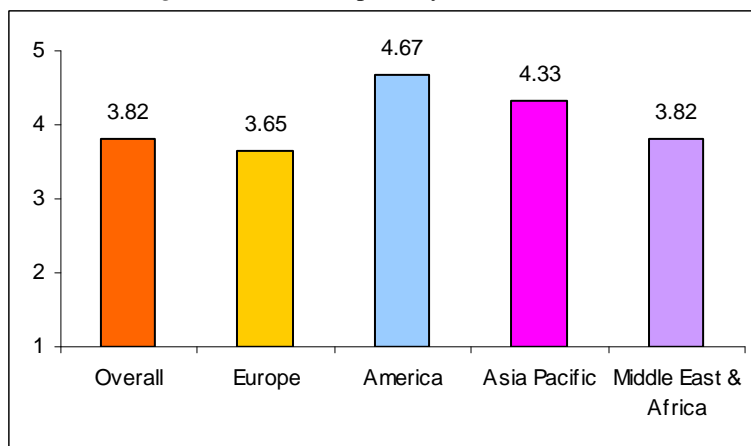
Three external issues, as identified in Table 4, are notified to have statistical significant differences: terrorist attacks in major cities, hike in oil prices and Avian flu outbreak. Figure 6-8 illustrate these statistical significant differences.

Figure 6 Terrorist attacks in major cities by Level of Concern



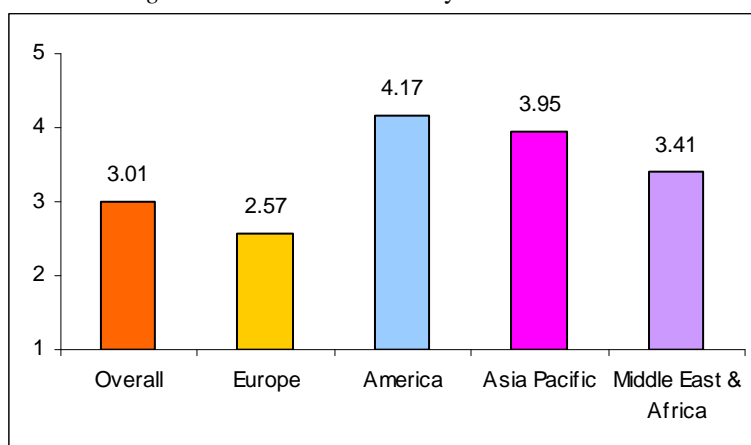
Terrorist attacks in major cities. The results suggest a significant difference (Sig: 0.003) between Asia Pacific and Europe, in which Asia Pacific (3.9) are significantly more concerned than Europe (2.97) about terrorist attacks in major cities.

Figure 7 Hike in oil price by Level of Concern



Hike in oil prices. A significant difference (Sig:0.009) is noted, suggesting that Europe (3.65) is significantly less concerned about hike in oil prices than Asia Pacific (4.33) is.

Figure 8 Avian flu outbreak by Level of Concern

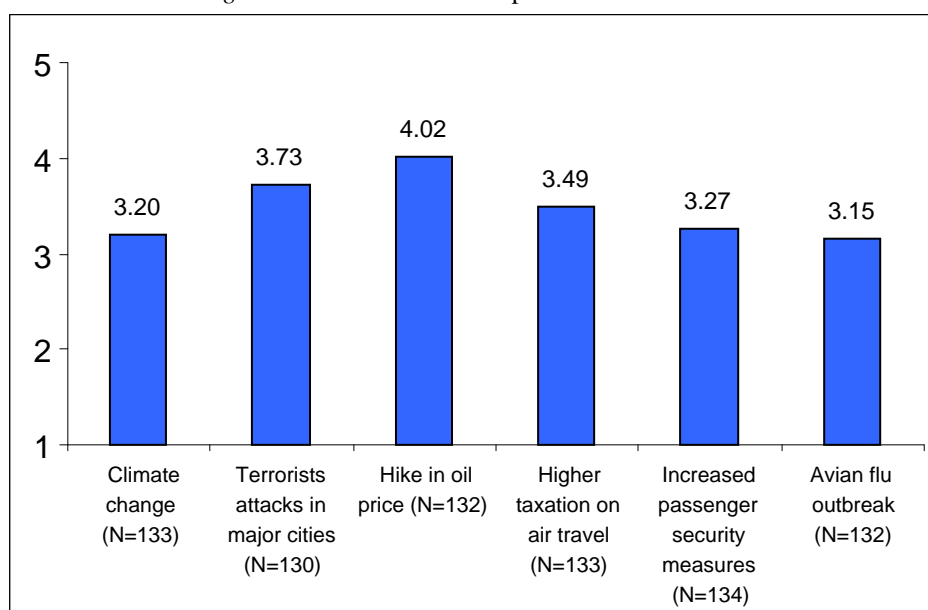


Avian flu outbreak. A significant difference (Sig: 0.000) exists between Europe (2.57) and Asia Pacific (3.95) for Avian flu outbreak, in which Asia Pacific is much more concerned about the issue than Europe is.

2. Level of Impact

Overall

Figure 9 Overall Level of Impact of External Issues



In terms of level of impact (Figure 9), hike in oil price is considered to have the overall most impact by the industry (4.02), followed by terrorists attacks in major cities (3.73) and higher taxation on air travel (3.49). This is consistent with the top rankings on the level of concern. Furthermore, these issues are also the same issues reported to be overall top rankings by respondents last year.

Analysis by Sectors

Table 5. The Top and Lowest Rankings on External Issues of Level of Impact by Sectors

Sectors	Top Rankings	Lowest Rankings
Overall	<ol style="list-style-type: none"> 1. Hike in oil price (4.02) 2. Terrorists attacks in major cities (3.73) 3. Higher taxation on air travel (3.49) 	<ol style="list-style-type: none"> 1. Avian flu outbreak (3.15) 2. Climate change (3.2)
Airlines	<ol style="list-style-type: none"> 1. Higher taxation on air travel (4.32) 2. Terrorists attacks in major cities (4.02) 3. Increased passenger security measures (3.85) 	<ol style="list-style-type: none"> 1. Hike in oil price (2.62) 2. Avian flu outbreak (3.44)
Caterers	<ol style="list-style-type: none"> 1. Terrorists attacks in major cities (4.02) 2. Hike in oil price (2.62) 3. Avian flu outbreak (3.44) 	<ol style="list-style-type: none"> 1. Climate change (3.2) 2. Higher taxation on air travel (3.49)
Food Suppliers	<ol style="list-style-type: none"> 1. Hike in oil price (3.6) 2. Terrorists attacks in major cities (3) 3. Higher taxation on air travel (2.7) 	<ol style="list-style-type: none"> 1. Avian flu outbreak (2.4) 2. Climate change (2.6)
Non Food Suppliers	<ol style="list-style-type: none"> 1. Hike in oil price (3.53) 2. Terrorists attacks in major cities (3.27) 3. Climate change (3.07) 	<ol style="list-style-type: none"> 1. Avian flu outbreak (2.33) 2. Increased passenger security measures (2.53)

Top rankings. The findings (Table 5) suggests that hike in oil price is considered to have most impact by the industry at large (4.02). It is important to note however that hike in oil price (2.62) is the lowest ranking for airlines, despite it being put at the first rank for the sector's level of concern. The second and third top rankings: terrorists attacks in major cities (3.73) and higher taxation on air travel (3.49) are also the same issues reported to be in overall top rankings by respondents last year. The sectors within the industry echoed one or two issues in their top rankings, with the exception of food suppliers which echoed all issues. This year the pattern is clearer, whereas last year the same ranking positions were shared by some issues.

Lowest rankings. This year's lowest rankings: Avian flu outbreak (3.15) and climate change (3.2), were not mentioned in 2007. Avian flu outbreak (3.44) is also considered to have the lowest impact for airlines. Climate change is one the issues mentioned in the lowest two rankings for both caterers (3.2) and food suppliers (2.6). Last year, the issue of Avian flu outbreak were only considered as top rankings, and were not noted in the lowest rankings. However, this year Avian flu outbreak is one of the lowest rankings for most sectors: airlines (3.44), food suppliers (2.4) and non-food suppliers (2.33).

Review of general pattern. In general, the top issues are shared by almost all sectors to certain extent, which is also the case last year. However, the pattern for the lowest two rankings is sporadic for all sectors, compared to a clearer pattern last year.

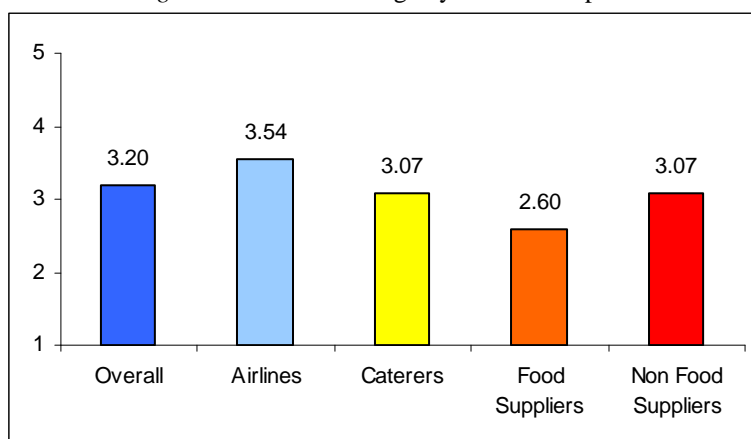
Significant Differences by Sectors

Table 6 The Statistical Significant Differences on External Issues of Level of Impacts by Sectors

	External Issues	Sig.	Lower	vs.	Higher
1	Climate change	0.016	Food Suppliers (2.60)	vs.	Airlines (3.54)
			Caterers (3.71)		
2	Hike in oil prices	0.000	Food Suppliers (3.60)	vs.	Airlines (4.62)
			Non Food Suppliers (3.53)		
3	Higher taxation on air travel	0.000	Caterers (3.22)	vs.	Airlines (4.32)
			Food Suppliers (2.70)		
			Non Food Suppliers (2.67)		
4	Increased passenger security measures	0.000	Food Suppliers (2.65)	vs.	Airlines (3.85)
			Non Food Suppliers (2.53)		
5	Avian flu outbreak	0.000	Food Suppliers (2.40)	vs.	Airlines (3.44)
			Non Food Suppliers (2.33)		Caterers (3.59)

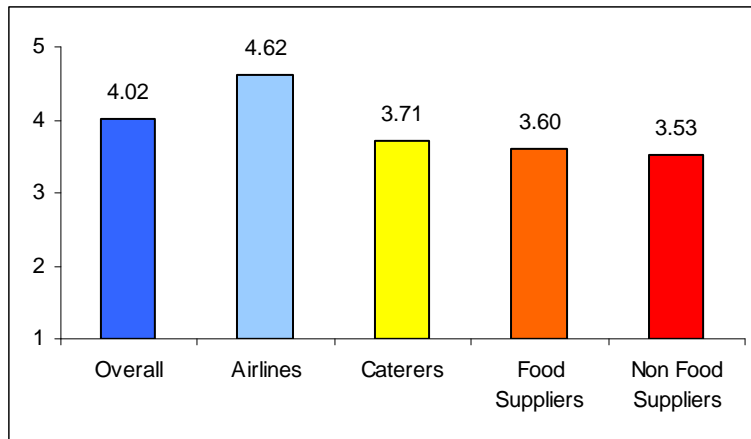
Five external issues (Table 6) have statistical significant differences among sectors: climate change, hike in oil price, higher taxation on air travel, increased passenger security measures and Avian flu outbreak. Figure 10-14 illustrates the significant differences on these issues across sectors.

Figure 10 Climate Change by Level of Impacts



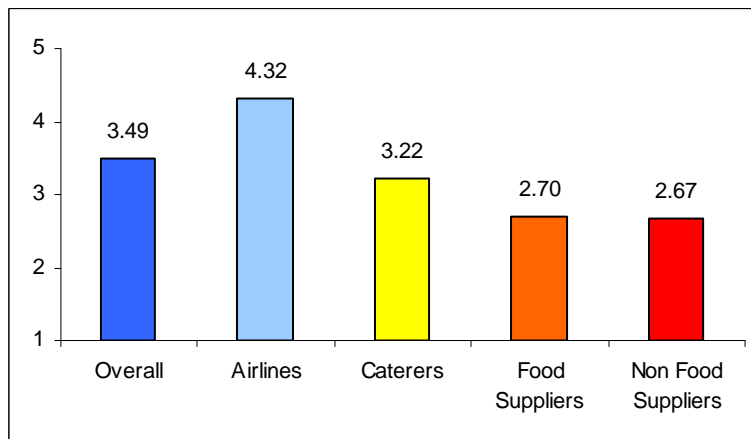
Climate change. A significant difference (Sig: 0.016) is found between food suppliers (2.60) and airlines (3.54), with airlines identifying more impact from climate change than food suppliers.

Figure 11 Hike in oil price by Level of Impacts



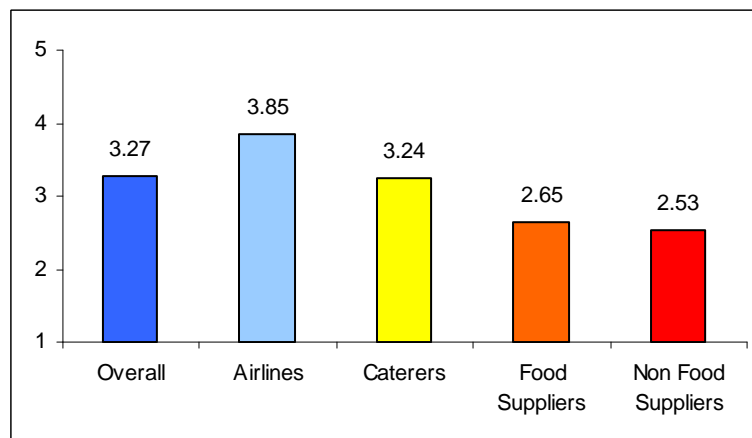
Hike in oil price. Airlines (4.62) perceive more impact than other sectors: caterers (3.71), food suppliers (3.60) and non food suppliers (3.53), with statistical differences of 0.000, in this issue.

Figure 12 Higher taxation on air travel by Level of Impacts



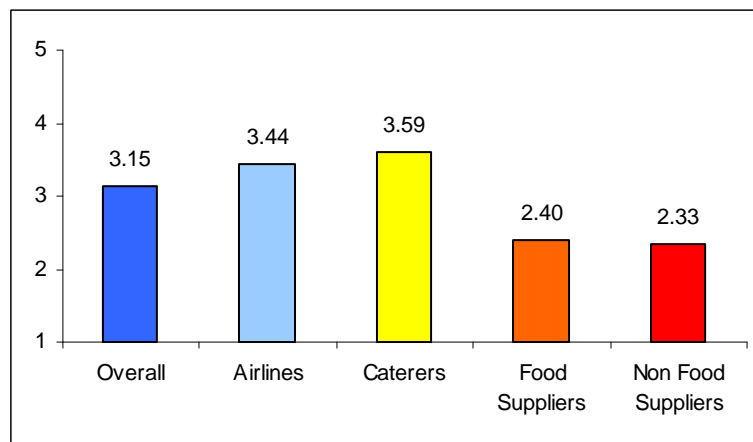
Higher taxation on air travel. A significant difference (Sig: 0.000) exists between airlines (4.32) and other sectors: caterers (3.22), food suppliers (2.70) and non food suppliers (2.67), suggesting that airlines is significantly more concerned about higher taxation on air travel than other sectors are.

Figure 13 Increased passenger security measures by Level of Impacts



Increased passenger security measures. Both food (2.65) and non food suppliers (2.53) perceive less impact (Sig. 0.000) from increased passenger security measures than airlines (3.85). The significant difference noted is 0.000.

Figure 14 Avian flu outbreak by Level of Impacts



Avian flu outbreak. In regards to the issue of Avian flu outbreak, Airlines (3.44) and Caterers (3.59) perceives more impact than food (2.40) and non-food (2.33) suppliers do.

Analysis by Regions

Table 7 The Top and Lowest Rankings on External Issues of Level of Impacts by Regions

Regions	Top Rankings	Lowest Rankings
Overall	<ol style="list-style-type: none"> 1. Hike in oil price (4.02) 2. Terrorists attacks in major cities (3.73) 3. Higher taxation on air travel (3.49) 	<ol style="list-style-type: none"> 1. Avian flu outbreak (3.15) 2. Climate change (3.2)
Europe	<ol style="list-style-type: none"> 1. Hike in oil price (3.87) 2. Terrorists attacks in major cities (3.47) 3. Higher taxation on air travel (3.4) 	<ol style="list-style-type: none"> 1. Avian flu outbreak (2.73) = 2. Climate change (3.1) = 2. Increased passenger security measures (3.1)
America	<ol style="list-style-type: none"> 1. Hike in oil price (4.5) 2. Avian flu outbreak (4.33) 3. Terrorists attacks in major cities (4.17) 	<ol style="list-style-type: none"> 1. Climate change (3) 2. Higher taxation on air travel (3.6)
Asia Pacific	<ol style="list-style-type: none"> 1. Hike in oil price (4.41) = 2. Terrorists attacks in major cities (4.29) = 2. Avian flu outbreak (4.29) 	<ol style="list-style-type: none"> 1. Climate change (3.48) 2. Higher taxation on air travel (3.55)
Middle East & Africa	<ol style="list-style-type: none"> 1. Terrorists attacks in major cities (4.33) 2. Hike in oil price (4.27) 3. Higher taxation on air travel (3.88) 	<ol style="list-style-type: none"> 1. Climate change (3.38) 2. Avian flu outbreak (3.44)

Top rankings. Hike in oil price is the top rank for all regions, except for Middle East & Africa; the region places it on the second top rank as outlined in Table 7. The overall top rankings are repeated for both Europe and Middle East and Africa. For the latter region, terrorists attacks in major cities (4.33) is the top rank, and then followed by hike in oil price (4.27). In the case of Asia Pacific (4.29) and America (4.33), Avian flu outbreak is on the second rank. The top three rankings in this survey are almost similar to those indicated in the findings of last year survey.

Lowest rankings. Climate change is considered to be the least impacting issue by all regions with the exception of Europe, where it is placed second after Avian flu outbreak (2.73) along with increased passenger security measures (3.1). Middle East and Africa share the same issues as the overall lowest two rankings: climate change (3.38) and Avian flu outbreak (3.44). In the case of America (3.6) and Asia Pacific (3.55), the regions also place higher taxation on air travel in the lowest rankings.

Review of general pattern. Europe and Middle East & Africa share the similar pattern on the top rankings, which is similar to the pattern of the overall top rankings. The two regions also share almost similar pattern on their lowest rankings. On the other hand, America and Asia Pacific share similar patterns between them for both the top and lowest rankings. These patterns between the two groups of regions did not exist in the results of the previous survey.

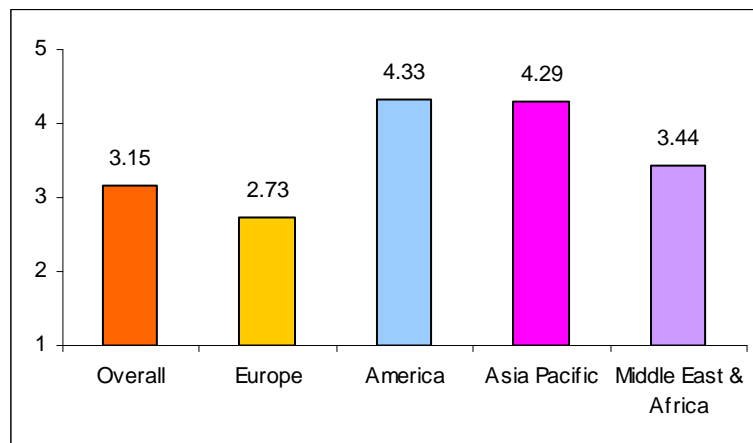
Significant Differences by Regions

Table 8. The Statistical Significant Differences on External Issues of Level of Impacts by Regions

External Issues		Sig.	Lower	vs.	Higher
1	Avian flu outbreak	0.000	Europe (2.73)	vs.	America (4.33) Asia Pacific (4.29)

Avian flu outbreak is the only external issue reported to have statistical significant differences in terms of level of impacts, as outlined in Table 8. The following figure (Figure 15) describes further the differences.

Figure 15 Avian flu outbreak by Level of Impacts



Avian flu outbreak. A significant difference (Sig:0.000) is noted between three regions, in which Europe (2.73) perceives less impact than America (4.33) and Asia Pacific (4.29) in regards to Avian flu outbreak.

3. Timing of Impacts

Overall

Table 9 The Overall Timing of Impact of External Issues

External Issues		Short Term	Long Term
1	Climate change	34.5%	65.5%
2	Terrorists attacks in major cities	56.0%	44.0%
3	Hike in oil price	70.2%	29.8%
4	Higher taxation on air travel	55.7%	44.3%
5	Increased passenger security measures	62.8%	37.2%
6	Avian flu outbreak	49.7%	50.3%

The overall findings on timing of impacts (Table 9) suggest that four external issues are considered to have immediate impact (i.e. likely to happen within 2 years or less) by the respondents. The foreseen immediate impact are in the following order: hike in oil price (70.20%), increased passenger security measures (62.80%), terrorists attacks in major cities (56%) and higher taxation on air travel (55.70%). By large, the impact in hike in oil price is considered to have be the most immediate by the industry. On the other hand, respondents believe the impact of climate change (65%) and avian flu outbreak (50.30%) to not have impact the industry in the immediate future (i.e. within more than two years).

Analysis by Sectors

Table 10 The Timing of Impacts of External Issues by Sectors.

External Issues	Airlines		Caterers		Food Suppliers		Non Food Suppliers	
	ST	LT	ST	LT	ST	LT	ST	LT
1 Climate change	46.2%	53.8%	30.0%	70.0%	30.0%	70.0%	21.4%	78.6%
2 Terrorists attacks in major cities	65.3%	34.7%	56.4%	43.6%	42.1%	57.9%	42.8%	57.2%
3 Hike in oil price	78.5%	21.5%	65.8%	34.2%	75.0%	25.0%	60.0%	40.0%
4 Higher taxation on air travel	67.9%	32.1%	53.7%	46.3%	45.0%	55.0%	40.0%	60.0%
5 Increased passenger security measures	80.4%	19.6%	65.0%	35.0%	31.7%	68.3%	39.9%	60.1%
6 Avian flu outbreak	56.8%	43.2%	50.0%	50.0%	31.6%	68.4%	53.9%	46.1%

Climate change is the only external issue considered by all sectors to have impact in more than two years: airlines (53.8%), caterers (70%), food suppliers (70%), and non-food suppliers (78.6%), as indicated in Table 10. Both of the suppliers group regard terrorist attacks in major cities (respectively 57.9%; 57.2%) and increase passenger security measures (respectively 68.3%; 60.10%) to have long-term impact in more than two years. This is also the case for food suppliers on Avian flu outbreak (68.4%), whereas caterers there is a 50% agreement issue is to have impact within or more than two years. 60% of the non-food suppliers believe that higher taxation on air travel is likely to have impact in the long-term (more than two years). In terms of differences across sectors, airlines (80.4%) leave that increase passenger security measures is the first issue to have immediate impact. Caterers (65.8%), food suppliers (75%) and non-food suppliers (60%) believe the issue to be hike in oil price.

Significant Differences between Sectors

Table 11 The Statistical Significant Differences on External Issues of Timing of Impacts by Sectors

External Issues		Sig.	Lower	vs.	Higher
1	Taxation on air travel will affect demand for air travel	0.000	Airlines (2.79)	vs.	Food Suppliers (4.10) Non Food Suppliers (4.00)
2	Increased passenger security measures at airports	0.000	Airlines (2.69) Caterers (3.10)	vs.	Food Suppliers (4.58)

A statistical difference is noted for timing of two external issues: higher taxation on air travel (Sig: 0.000) and increased passenger security measures at airports (Sig. 0.000) (Table 11). As depicted in Figure 16-17, the results indicate that airlines (2.79) perceive more immediate impact from taxation on air travel than food (4.10) and non-food suppliers (4.00) do. It is also reported that airlines (2.69) and caterers (3.10) anticipate more immediate impact from increased passenger security measures at airports than food suppliers (4.58) does.

Figure 16 Higher taxation on air travel by Timing of Impact

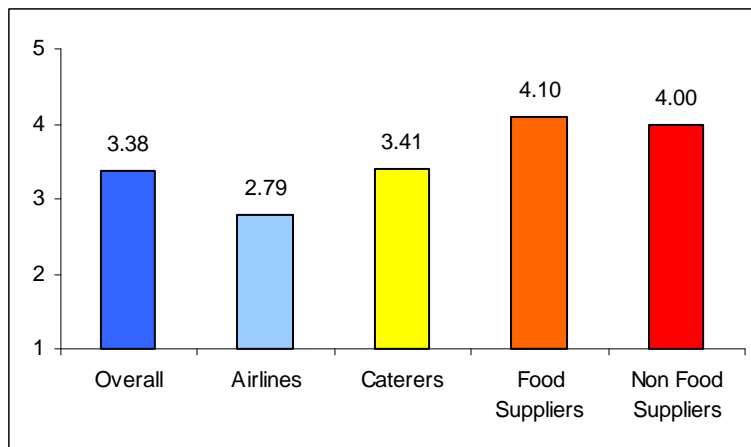
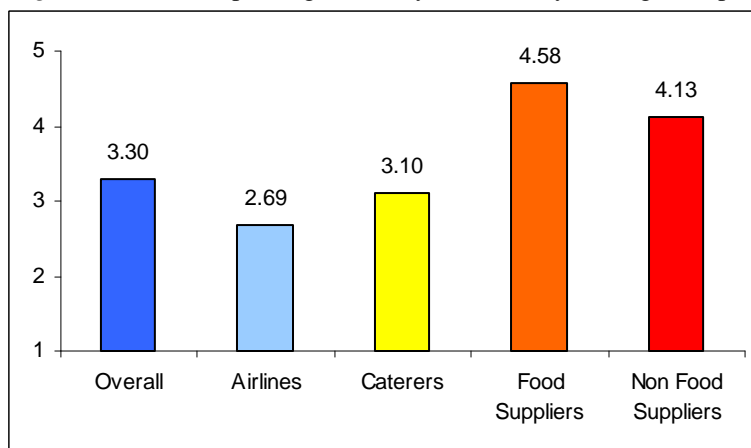


Figure 17 Increased passenger security measures by Timing of Impact



Analysis by Regions

Table 12 The Timing of Impacts of External Issues by Regions

External Issues	Europe		America		Asia Pacific		Middle East	
	ST	LT	ST	LT	ST	LT	ST	LT
1 Climate change	38.3%	61.7%	33.4%	66.6%	28.6%	71.4%	23.5%	76.5%
2 Terrorists attacks in major cities	51.2%	48.8%	83.3%	16.7%	68.1%	31.9%	53.3%	46.7%
3 Hike in oil price	68.9%	31.1%	83.4%	16.6%	78.2%	21.8%	60.0%	40.0%
4 Higher taxation on air travel	57.9%	42.1%	50.0%	50.0%	60.8%	39.2%	37.6%	62.4%
5 Increased passenger security measures	60.4%	39.6%	50.0%	50.0%	73.9%	26.1%	62.6%	37.4%
6 Avian flu outbreak	39.1%	60.9%	83.4%	16.6%	82.5%	17.5%	43.8%	56.2%

As outlined in Table 12, all regions agree that climate change is to have a long-term impact: airlines (61.7%), caterers (66.6%), food suppliers (71.4%), and non-food suppliers (76.5%). Middle East & Africa consider higher taxation on air travel (62.4%) and Avian flu outbreak (56.2%) to have impact in more than two years. This is the same case for Europe on Avian flu outbreak (60.9%). The opinions on which issue is to happen more immediate vary by regions. Europe believe that hike in oil price (68.9%) is the issue that is likely to have more immediate impact on the region. America believe Avian flu outbreak and hike in oil price to be have equally (83.4%) most immediate impact, whereas Asia Pacific suggest it to only be Avian flu outbreak (82.55). For Middle East & Africa, the most immediate impacting issue is increased passenger security measures (62.6%).

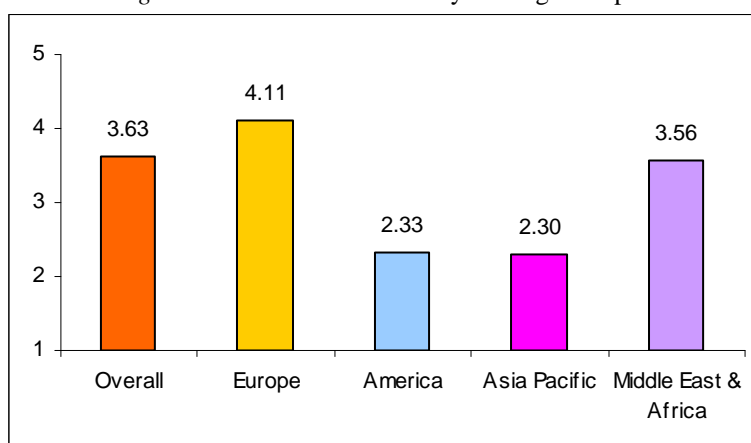
Significant Differences between Regions

Table 13 The Statistical Significant Differences on External Issues of Timing of Impacts by Regions

External Issues	Sig.	Lower	vs.	Higher
1 Avian flu outbreak will affect passengers decision on air travel	0.000	Asia Pacific (2.30)	vs.	Europe (4.11)

Only one external issue (Table 13) is reported to have statistical significant difference in terms of timing of impact: Avian flu outbreak. Asia Pacific (2.30) anticipates more immediate impact on Avian flu outbreak than Europe (4.11) does, as illustrated by Figure 18.

Figure 18 Avian flu outbreak by Timing of Impact



B. MAJOR INDUSTRY TRENDS

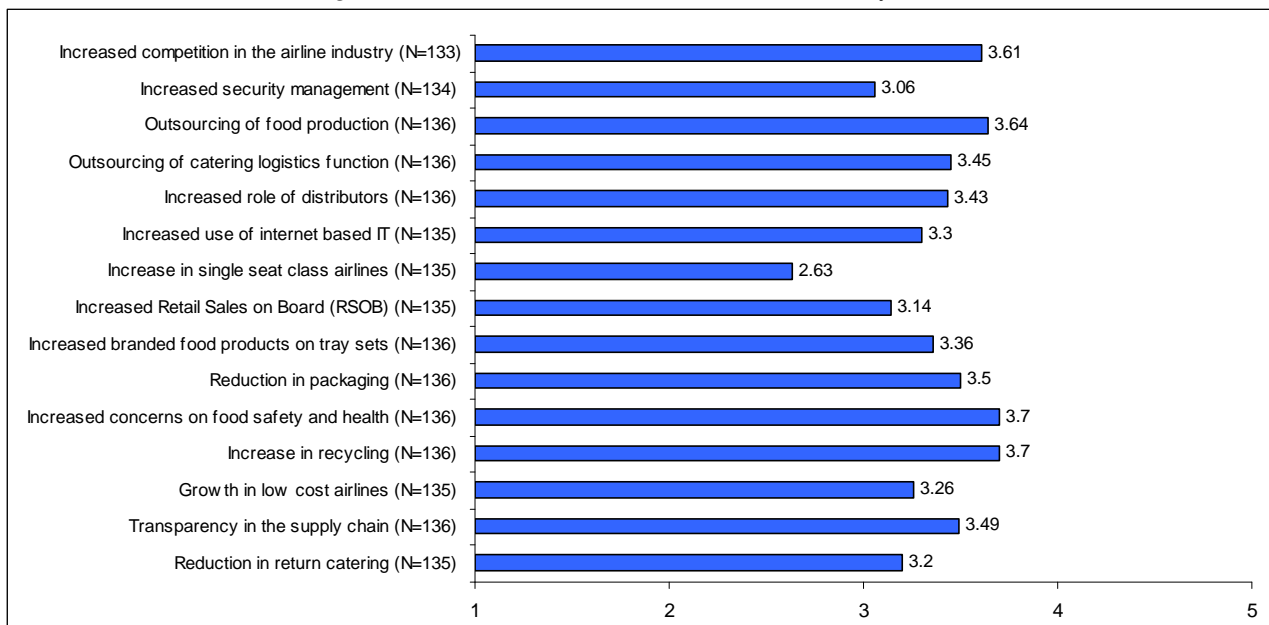
1. Level of Involvement

The 15 major trends research last year have been reviewed in its relevance to this year survey. Several trends (e.g. adoption of RFID equipment tracking and introduction of A380) were replaced by more relevant current trends (i.e. transparency in the supply chain and reduction in return catering). Thus, the 15 major trends researched in the survey are as follows:

- Increased competition in the airline industry
- Increased security management
- Outsourcing of food production
- Outsourcing of catering logistics function
- Increased role of distributors
- Increased use of internet based IT
- Increase in single seat class airlines
- Increased Retail Sales on Board (RSOB)
- Increased branded food products on tray sets
- Reduction in packaging
- Increased concerns on food safety and health
- Increase in recycling
- Growth in low cost airlines
- Transparency in the supply chain
- Reduction in return catering

Overall

Figure 19 Overall Level of Involvement with Industry Trends



This year's overall top ranking is for two issues: increased concerns on food safety and health, and increase in recycling (3.7), as depicted in Figure 19. Last year's top ranking, increased competition in the airline industry, takes third place this year (3.61). Following the top two issues this year is the outsourcing of food production (3.64). In terms of the lowest rankings, the overall lowest rankings are increase in single seat class airlines (2.63) and increased security management (3.06).

Analysis by Sectors

Table 14 The top and lowest rankings on Industry Trends of Level of Involvement by Sectors

Sectors	Top Rankings	Lowest Rankings
Overall	= 1. Increased concerns on food safety and health (3.7) = 1. Increase in recycling (3.7) 2. Outsourcing of food production (3.64)	1. Increase in single seat class airlines (2.63) 2. Increased security management (3.06)
Airlines	1. Outsourcing of food production (3.89) 2. Increased competition in the airline industry (3.88) = 3. Outsourcing of catering logistics function (3.8) = 3. Increased concerns on food safety and health (3.8)	1. Increase in single seat class airlines (2.64) 2. Growth in low cost airlines (2.98)
Caterers	1. Increased concerns on food safety and health (3.95) 2. Increase in recycling (3.93) 3. Outsourcing of food production (3.91)	= 1. Increased role of distributors (3.21) = 1. Increased branded food products on tray sets (3.21) 2. Increased Retail Sales on Board (RSOB) (3.23)
Food Suppliers	1. Increased branded food products on tray sets (4.05) = 2. Increase in recycling (3.9) = 2. Outsourcing of food production (3.9)	1. Increased security management (1.95) 2. Increase in single seat class airlines (2.75)
Non Food Suppliers	= 1. Increased competition in the airline industry (3.67) = 1. Increased role of distributors (3.67) = 2. Reduction in packaging (3.27) = 2. Increase in recycling (3.27)	1. Reduction in return catering (1.93) 2. Increase in single seat class airlines (2)

Top rankings. The overall top rankings are increased concerns on food safety and health and increase in recycling (3.7) (Table 14). The increase in recycling trend is positioned in the overall top ranking by caterers (3.93) and food (3.9) and non-food suppliers group (3.27). For the second trend, concerns on food safety and health, only airlines (3.89) and caterers (3.95) place the trend on the top rankings.

Lowest rankings. Although the lowest overall rankings are increase in single seat class airlines (2.63) and increased security management (3.06), only the first was considered in the lowest rankings list by all sectors with the exceptions of caterers. By airlines, the trend is regarded as the lowest ranking (2.64), whereas by food and non-food suppliers the trend is regarded as the second lowest ranking, consecutively at 2.75 and 2.00. 1. Increased security management (1.95) on the other hand is only noted by food suppliers, and it is as the lowest ranking for the sector.

Review of general patterns. Last year, the analysis of finding suggests that airlines and caterers tend to be involved in similar issues. This year results suggest less apparent trend with the exception that caterers mimic the overall top rankings. Thus the top rankings by sectors vary, and in several cases more than one trend are positioned in the same rank. Similarly, the lowest two rankings among sectors do not show any patterns of regularity across sectors.

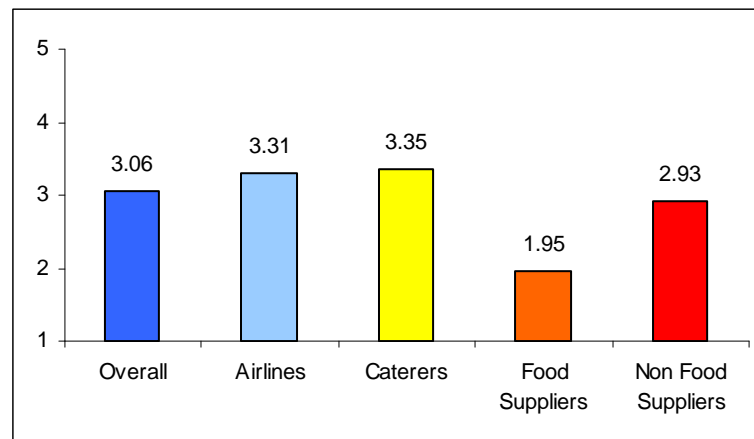
Significant Differences between Sectors

Table 15 The Statistical Significant Differences on Industry Trends of Level of Involvement by Sectors

Industry Trends		Sig.	Lower	vs.	Higher
1	Increased security management	0.000	Food Suppliers (1.95)	vs.	Airlines (3.31)
					Caterers (3.35)
2	Outsourcing of food production	0.004	Non Food Suppliers (2.27)	vs.	Airlines (3.89)
					Caterers (3.91)
					Food Suppliers (3.9)
3	Reduction in return catering	0.000	Non Food Suppliers (1.93)	vs.	Airlines (3.28)
					Caterers (3.76)
					Food Suppliers (3.15)

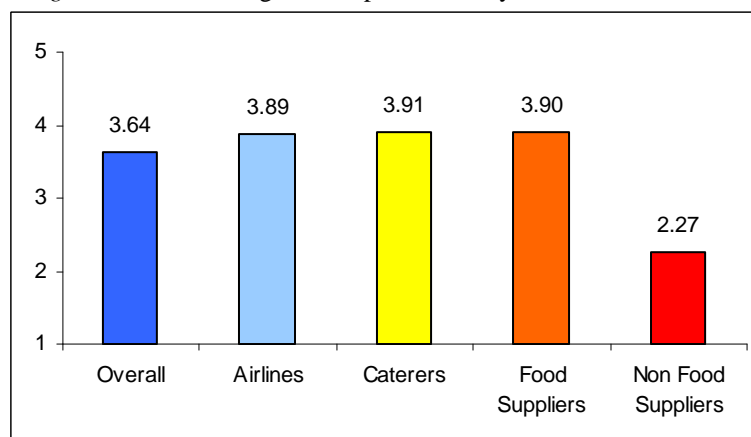
Three out of 15 industry trends are identified to have statistical significant differences in terms of level of involvement (Table 15). These three trends are increased security management, outsourcing of food production and reduction in return catering, which are illustrated further in Figure 20-22.

Figure 20 Increased security management by Level of Involvement



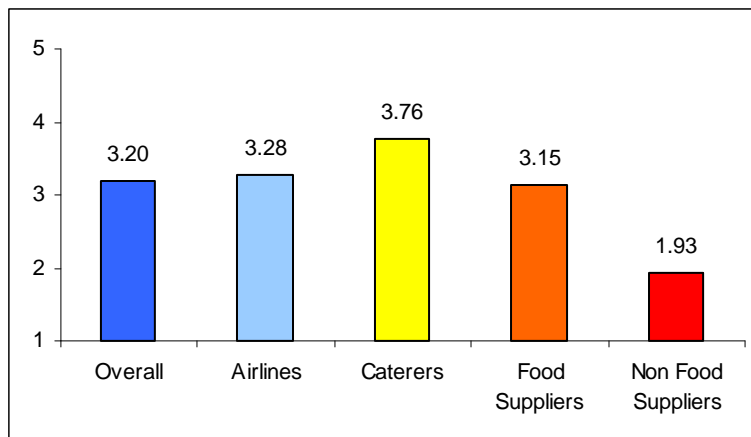
Increased security management. Both airlines (3.31) and caterers (3.35) are significantly more involved than food suppliers (1.95) in the issue of increased security management (Sig: 0.000).

Figure 21 Outsourcing of food production by Level of Involvement



Outsourcing of food production. The results suggests a significant difference between non food suppliers and other sectors (Sig: 0.004), in which non food suppliers (2.27) are significantly less involved in outsourcing of food production than airlines (3.89), caterers (3.91) and food suppliers (3.9). This is not surprising.

Figure 22 Reduction in return catering by Level of Involvement



Reduction in return catering. Non food suppliers are also noted to be significantly less involved (Sig: 0.000) than airlines (3.28), caterers (3.76) and food suppliers (3.15) in the issue of reduction in return catering.

Analysis by Regions

Table 16 The Top and Lowest Rankings on Industry Trends of Level of Involvement by Regions

Regions	Top Rankings	Lowest Rankings
Overall	<ul style="list-style-type: none"> = 1. Increased concerns on food safety and health (3.7) = 1. Increase in recycling (3.7) 2. Outsourcing of food production (3.64) 	<ul style="list-style-type: none"> 1. Increase in single seat class airlines (2.63) 2. Increased security management (3.06)
Europe	<ul style="list-style-type: none"> 1. Increase in recycling (3.65) 2. Outsourcing of food production (3.56) 3. Increased concerns on food safety and health (3.53) 	<ul style="list-style-type: none"> 1. Increase in single seat class airlines (2.52) 2. Reduction in return catering (2.94)
America	<ul style="list-style-type: none"> 1. Increased concerns on food safety and health (4.67) = 2. Outsourcing of food production (4.5) = 2. Outsourcing of catering logistics function (4.5) 	<ul style="list-style-type: none"> 1. Increase in single seat class airlines (2.67) 2. Increased security management (3.17)
Asia Pacific	<ul style="list-style-type: none"> 1. Increased concerns on food safety and health (4.09) 2. Increase in recycling (3.68) 3. Increased competition in the airline industry (3.64) 	<ul style="list-style-type: none"> 1. Increase in single seat class airlines (2.82) 2. Increase in Retail Sales on Board (RSOB) (2.95)
Middle East & Africa	<ul style="list-style-type: none"> 1. Increased competition in the airline industry (4.13) = 2. Transparency in supply chain (4) = 2. Reduction in return catering (4) 	<ul style="list-style-type: none"> 1. Increase in Retail Sales on Board (RSOB) (2.65) 2. Increase in single seat class airlines (2.76)

Top rankings. As outlined in Table 16, Last year top ranking on industry trends by level of involvement (i.e. increased competition in the airline industry) is also considered in the top three rankings by Asia Pacific (3.64) and Middle East & Africa region (4.13) in this survey. In 2008, the increase concerns of food safety and health and increase in recycling are two major issues placed in the three top rankings by all regions with the exception of Middle East & Africa. In the case of

America, increased concerns on food safety and health (4.67) is in the top ranking, however increase in recycling is not. Outsourcing is another trend placed in top three rankings by Europe and America. Outsourcing activity is in the case of food production for Europe (3.56) and America (4.5), and in the case of catering logistics function for America (4.5).

Lowest rankings. The overall lowest rankings differ greatly from last year’s result (adoption of RFID for equipment tracking and introduction of A380). Among the regions, there is an agreement that increase in single seat class airlines is one of the trends they are least involved in (2.52 – 2.82). Another shared agreement is between Asia Pacific (2.95) and Middle East & Africa (2.65) on increase in Retail Sales on Board (RSOB) as one of the lowest rankings.

Review of general patterns. All regions have placed the overall top three rankings as the top trends they are also involved in, with the exception of transparency in supply chain and reduction in return catering (4.00) for Middle East & Africa. Furthermore, all regions also share one similar trend of the two lowest rankings (i.e. increase in single seat class airlines). The top three and lowest two rankings on the level of involvement by regions in this survey are entirely different from those indicated in the last year survey.

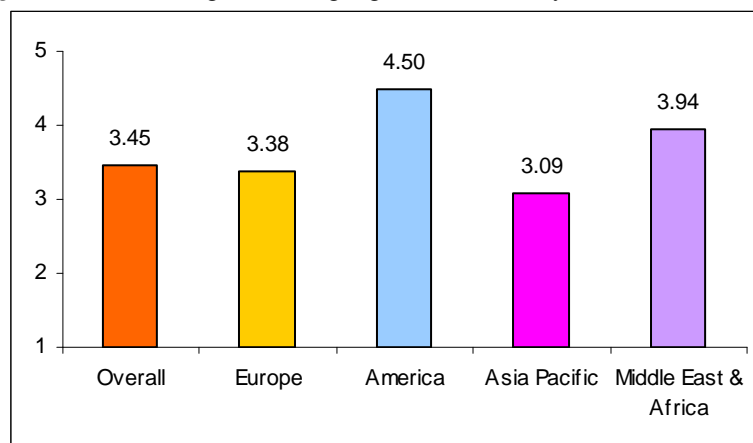
Significant Differences between Regions

Table 17 The Statistical Significant Differences on Industry Trends of Level of Involvement by Regions

	Industry Trends	Sig.	Lower	vs.	Higher
1	Outsourcing of catering logistics function	0.039	Asia Pacific (3.09)	vs.	America (4.5)
2	Reduction in return catering	0.013	Europe (2.94)	vs.	Middle East/Africa (4.00)

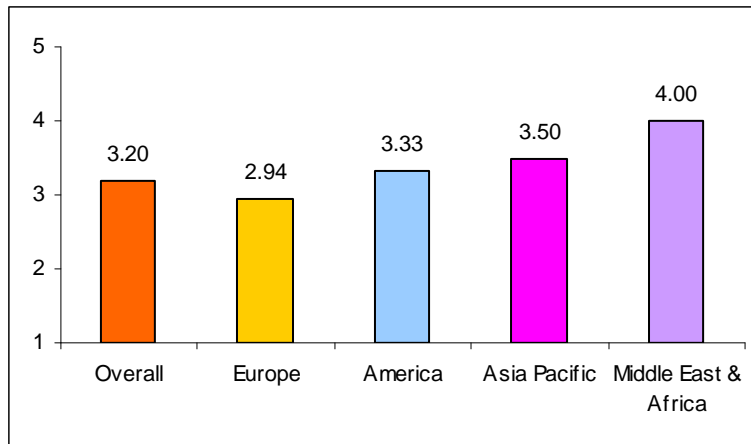
The findings, as outlined in Table 17, suggest two industry trends within the different regions have statistical differences: outsourcing of catering logistics function and reduction in return catering. Figures 23-34 illustrates the statistical differences among regions.

Figure 23 Outsourcing of catering logistics function by Level of Involvement



Outsourcing of catering logistics function. Asia Pacific (3.09) is recorded to have a significantly lower involvement than America (4.5) in the outsourcing of catering logistics function (Sig: 0.039).

Figure 24 Reduction in return catering by Level of Involvement

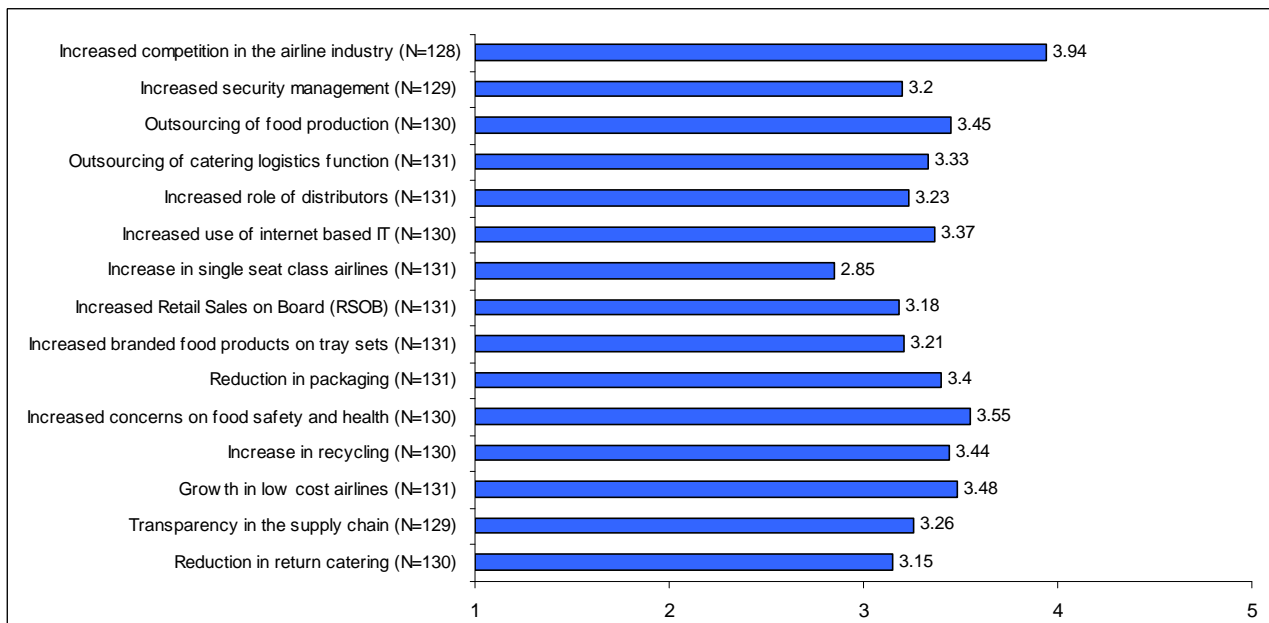


Reduction in return catering. A significant difference (Sig: 0.013) is identified between Europe (2.94) and Middle East & Africa (4.00), in which airlines are more involved in the use of the internet.

2. Level of Impacts

Overall

Figure 25 Overall Level of Impact of Industry Trends



The overall results, as outlined in Figure 25, suggest that increased competition in the airline industry (3.94) remains to be the trend that has the most impact in the industry as the top ranking, which is similar to last year result. Growth in the low cost airlines is on the third place (3.48), also similar to last year. The second top ranking this year is a new trend: increased concerns on food safety and health (3.55). The lowest overall ranking is increase in single seat class airlines (2.85), followed by reduction in return catering (3.15).

Analysis by Sectors

Table 18. The Top and Lowest Rankings on Industry Trends of Level of Impacts by Sectors

Sectors	Top Rankings	Lowest Rankings
Overall	<ol style="list-style-type: none"> 1. Increased competition in the airline industry (3.94) 2. Increased concerns on food safety and health (3.55) 3. Growth in low cost airlines (3.48) 	<ol style="list-style-type: none"> 1. Increase in single seat class airlines (2.85) 2. Reduction in return catering (3.15)
Airlines	<ol style="list-style-type: none"> 1. Increased competition in the airline industry (4.18) = 2. Increased concerns on food safety and health (3.57) = 2. Growth in low cost airlines (3.57) 	<ol style="list-style-type: none"> 1. Increase in single seat class airlines (2.91) 2. Increased Retail Sales on Board (RSOB) (3.09)
Caterers	<ol style="list-style-type: none"> 1. Outsourcing of food production (3.92) 2. Increased concerns on food safety and health (3.85) 3. Increased competition in the airline industry (3.79) 	<ol style="list-style-type: none"> = 1. Increase in single seat class airlines (3.18) = 1. Transparency in the supply chain (3.18) 2. Increased role of distributors (3.26)
Food Suppliers	<ol style="list-style-type: none"> 1. Outsourcing of food production (4.11) = 2. Outsourcing of catering logistics function (3.74) = 2. Increased branded food products on tray sets (3.74) 	<ol style="list-style-type: none"> 1. Increased security management (2.37) 2. Increased use of internet based IT (2.84)
Non Food Suppliers	<ol style="list-style-type: none"> 1. Increased competition in the airline industry (3.87) 2. Increased use of internet based IT (3.47) 3. Reduction in packaging (3.4) 	<ol style="list-style-type: none"> 1. Reduction in return catering (2.07) 2. Increase in single seat class airlines (2.13)

Top rankings. Although this year's top ranking on level of involvement has changed, the increased competition in the airline industry remains the top overall ranking for level of impacts by sectors (Table 18). This is also the case for airlines (4.18) and non-food suppliers (3.87). Increased concerns on food safety and health (2.85) which is the top ranking on level of involvement is reported to also have impacts and are placed on the top rankings for airlines (3.57) and caterers (3.85). Similar to the overall findings, growth in low cost airlines is placed on the third top ranking by airlines (3.57).

Lowest rankings. In line with the lowest ranking in the level of involvement, the lowest ranking in the level of impact is also increase in single seat class airlines (2.85). Airlines (2.91) and caterers (3.18) also regarded the trend to be the lowest ranking, whereas non-food supplier regarded the trend to be the second lowest ranking (2.13). It is interesting to note that although increased use of internet based IT was one of the last year overall top rankings and also by some sectors, this year findings suggest that the trend is one of the lowest rankings for food supplier (2.84).

Review of general patterns. Airlines show similar pattern as the overall top rankings. Caterers also share two similar trends with the overall and Airlines' top rankings. However, the remaining of the sectors do not confirm to any particular pattern in term of the overall top and lowest rankings.

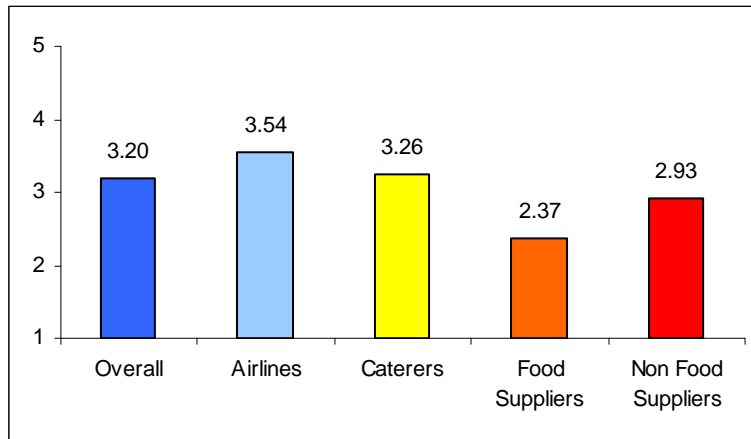
Significant Differences between Sectors

Table 19 The Statistical Significant Differences on Industry Trends of Level of Impacts by Sectors

	Industry Trends	Sig.	Lower	vs.	Higher
1	Increased security management	0.000	Food Suppliers (2.37)	vs.	Airlines (3.54) Caterers (3.26)
2	Outsourcing of food production	0.000	Non Food Suppliers (2.47)	vs.	Airlines (3.27) Caterer (3.92) Food Suppliers (4.11)
3	Reduction in return catering	0.000	Non Food Suppliers (2.07)	vs.	Airlines (3.29) Caterers (3.63)

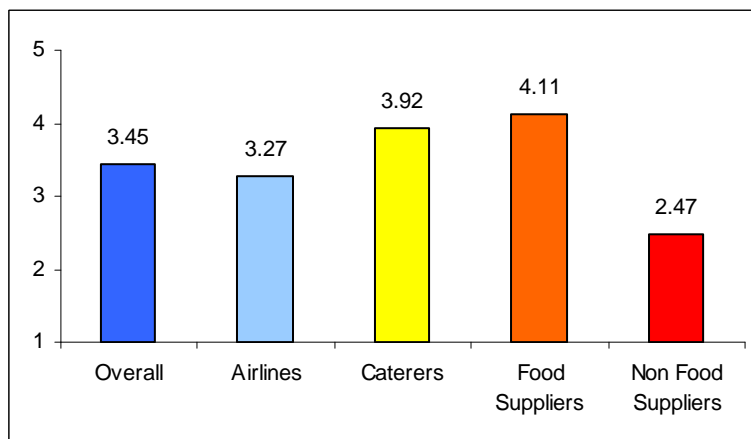
The above are three industry trends in which statistical differences were recognized in terms of level of impacts by sectors: increased security management, outsourcing of food production, and reduction in return catering (Table 19). The following figures (Figures 26-28) illustrate the statistical differences across sectors.

Figure 26 Increased security management by Level of Impact



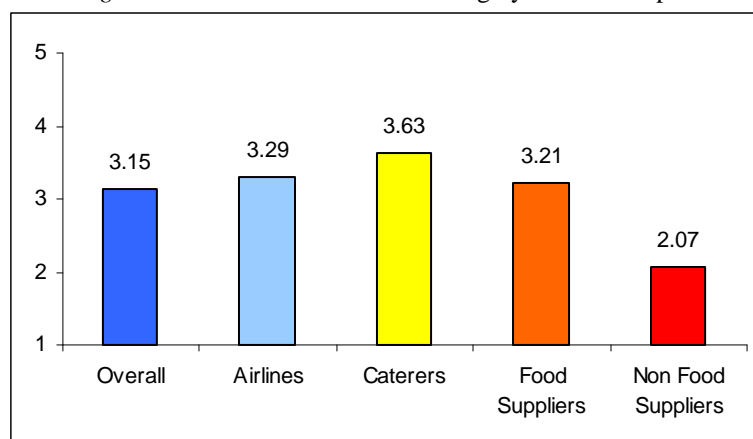
Increased security management. Food suppliers (2.37) are perceived to receive significantly less impacts than airlines (3.54) and caterers (3.26). The statistical difference noted is 0.000.

Figure 27 Outsourcing of food production by Level of Impact



Outsourcing of food production. There is a significant difference between non food suppliers (2.47) and other sectors: airlines (3.27), caterers (3.92) and food suppliers (4.11). Non food suppliers are significantly less involved in outsourcing of food production (Sig.: 0.000).

Figure 28 Reduction in return catering by Level of Impact



Reduction in return catering. Non food suppliers (2.07) perceive a lower level of impact than airlines (3.29) and caterers (3.63), with significance of 0.000.

Analysis by Regions

Table 20. The Top and Lowest Rankings on Industry Trends of Level of Impacts by Regions

Regions	Top Rankings	Lowest Rankings
Overall	<ol style="list-style-type: none"> 1. Increased competition in the airline industry (3.94) 2. Increased concerns on food safety and health (3.55) 3. Growth in low cost airlines (3.48) 	<ol style="list-style-type: none"> 1. Increase in single seat class airlines (2.85) 2. Reduction in return catering (3.15)
Europe	<ol style="list-style-type: none"> 1. Increased competition in the airline industry (3.87) 2. Increase in recycling (3.48) 3. Reduction in packaging (3.44) 	<ol style="list-style-type: none"> 1. Increase in single seat class airlines (2.72) 2. Reduction in return catering (2.94)
America	<ol style="list-style-type: none"> 1. Growth in low cost airlines (4.6) 2. Increased concerns on food safety and health (4.4) 3. Increased use of internet based IT (4.2) 	= 1. Increased branded food products on tray sets (3) = 1. Increase in recycling (3) = 1. Increased role of distributors (3)
Asia Pacific	<ol style="list-style-type: none"> 1. Increased competition in the airline industry (4.05) 2. Increased concerns on food safety and health (3.9) 3. Outsourcing of food production (3.71) 	<ol style="list-style-type: none"> 1. Increased role of distributors (2.95) = 2. Increase in single seat class airlines (3.14) = 2. Increased Retail Sales on Board (RSOB) (3.14)
Middle East & Africa	<ol style="list-style-type: none"> 1. Increased competition in the airline industry (4.13) 2. Increased concerns on food safety and health (3.67) 3. Reduction in return catering (3.56) 	<ol style="list-style-type: none"> = 1. Increase in single seat class airlines (2.81) = 1. Increased Retail Sales on Board (RSOB) (2.81) 2. Outsourcing of food production (3.07)

Top rankings. Three regions perceive that they received most impact from increased competition in the airline industry, as outlined in Table 20: Europe (3.87), Asia Pacific (4.05), and Middle East & Africa (4.13). Similarly, three regions perceive receiving impacts from increased concerns on food safety and health as the second ranking: America (4.4), Asia Pacific (3.9), and Middle East & Africa (3.67). Asia Pacific placed outsourcing of food production as the top ranking (3.71), suggesting that they receive impacts from the trend.

Lowest rankings. Europe shares the same trends as the overall lowest rankings: increase in single seat class airlines (2.72) and reduction in return catering (2.94). Furthermore, increased in single seat class airlines are also one of the lowest rankings for Asia Pacific (3.14) and Middle East & Africa (2.81). Asia Pacific (3.14) and Middle East and Africa (2.81) also place increased Retail Sales on Board (RSOB) in the lowest rankings.

Review of general patterns. Asia Pacific and Middle East & Africa share two trends, which are similar to the overall top rankings. Europe shares the same lowest two rankings with the overall lowest two rankings. The remainder of the regions shares one trend in the lowest rankings, with the exception of America.

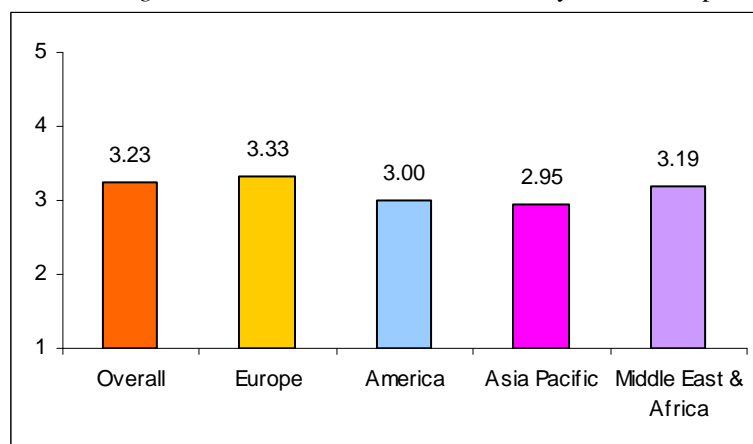
Significant Differences between Regions

Table 21. The Statistical Significant Differences on Industry Trends of Level of Impacts by Regions

	Industry Trends	Sig.	Lower	vs.	Higher
1	Increased role of distributors	0.013	America (3.00)	vs.	Europe (3.33)

In term of level of impact among regions, increased role of distributors is the only industry trends reported to have a statistical difference (Table 21). Figure 29 illustrates this statistical difference.

Figure 29 Increased role of distributors by Level of Impacts



Increased role of distributors. Europe (3.33) perceives a significantly higher level of impact than America (3.00) on the issue of increased role of distributors (Sig.: 0.013).

3. Timing of Impacts

Overall

Table 22 The Overall Timing of Impacts of Industry Trends

	Industry Trends	Short Term	Long Term
1	Increased competition in the airline industry	85.4%	14.6%
2	Increased security management	76.3%	23.7%
3	Outsourcing of food production	68.7%	31.3%
4	Outsourcing of catering logistics function	66.7%	33.3%
5	Increased role of distributors	67.9%	32.1%
6	Increased use of internet based IT	54.9%	45.1%
7	Increase in single seat class airlines	53.1%	46.9%
8	Increased Retail Sales on Board (RSOB)	67.9%	32.1%
9	Increased branded food products on tray sets	67.2%	32.8%
10	Reduction in packaging	76.0%	24.0%
11	Increased concerns on food safety and health	77.1%	22.9%
12	Increase in recycling	65.4%	34.6%
13	Growth in low cost airlines	75.9%	24.1%
14	Transparency in the supply chain	73.1%	26.9%
15	Reduction in return catering	60.1%	39.9%

The overall findings (Table 22) suggest that respondents perceive that all industry trends are to have impact within the next two years. 85.40% of the respondents perceive that increased competition in the airline industry is to have the most immediate impacts. The second short term impact suggested by respondents is increased concerns on food safety and health (77.10%), which is followed by increased security management (76.30%). On the other spectrum is the increase in single seat class airlines. Slightly more than half (53.10%) of the respondents suggest that it will have impact within the next two years, yet the remainder of the respondents believe the impact is to be felt in more than two years time.

Analysis by Sectors

In general all sectors believe that all industry trends are to have impacts in less than two years, with the exceptions of non-food suppliers on a few industry trends: outsourcing production (61.5%), increased use of internet based IT (53.3% in), increase in single seat class airlines (64.4%), and reduction in return catering (61.5%) (Table 23). All sectors also generally agreed that increased competition in the airline industry is the trend that is likely to have the most immediate impact to the industry: airlines (84.7%), caterers (90%) and non-food suppliers (93.4%), with the exception of food suppliers who believe that increased branded food production on tray sets and increased concerns on food safety and health (90%) likely to be the ones that have the most immediate impact on the industry.

Table 23 The Timing of Impacts of Industry Trends By Sectors

	Industry Trends	Airlines		Caterers		Food Suppliers		Non Food Suppliers	
		ST	LT	ST	LT	ST	LT	ST	LT
1	Increased competition in the airline industry	84.7%	15.3%	90.0%	10.0%	80.0%	20.0%	93.4%	6.6%
2	Increased security management	84.4%	15.6%	85.4%	14.6%	50.0%	50.0%	60.0%	40.0%
3	Outsourcing of food production	71.7%	28.3%	70.8%	29.2%	80.0%	20.0%	38.5%	61.5%
4	Outsourcing of catering logistics function	68.0%	32.0%	61.0%	39.0%	80.0%	20.0%	64.3%	35.7%
5	Increased role of distributors	73.5%	26.5%	60.0%	40.0%	79.0%	21.0%	73.4%	26.6%
6	Increased use of internet based IT	58.4%	41.6%	61.0%	39.0%	35.0%	65.0%	46.7%	53.3%
7	Increase in single seat class airlines	55.6%	44.4%	61.0%	39.0%	42.1%	57.9%	35.6%	64.4%
8	Increased Retail Sales on Board (RSOB)	71.1%	28.9%	65.0%	35.0%	75.0%	25.0%	60.1%	39.9%
9	Increased branded food products on tray sets	62.3%	37.7%	62.5%	37.5%	90.0%	10.0%	71.4%	28.6%
10	Reduction in packaging	73.6%	26.4%	73.2%	26.8%	85.0%	15.0%	80.0%	20.0%
11	Increased concerns on food safety and health	78.9%	21.1%	80.5%	19.5%	90.0%	10.0%	42.8%	57.2%
12	Increase in recycling	61.1%	38.9%	65.0%	35.0%	85.0%	15.0%	60.0%	40.0%
13	Growth in low cost airlines	77.4%	22.6%	75.7%	24.3%	75.0%	25.0%	73.3%	26.7%
14	Transparency in the supply chain	67.9%	32.1%	77.5%	22.5%	85.0%	15.0%	76.9%	23.1%
15	Reduction in return catering	61.5%	38.5%	58.5%	41.5%	70.0%	30.0%	38.5%	61.5%

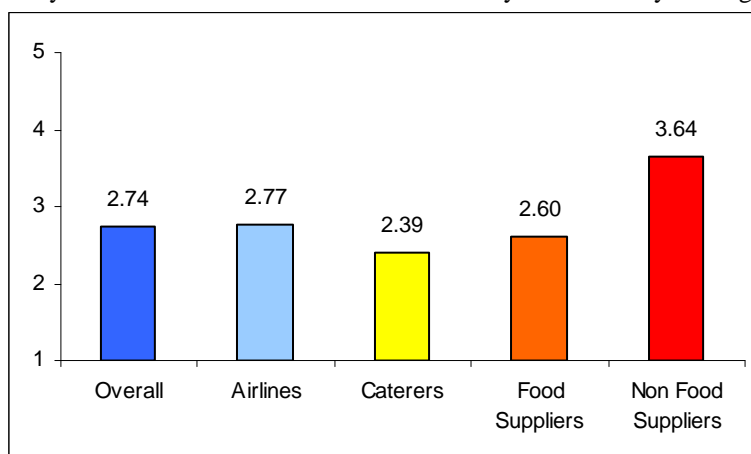
Significant Differences between Sectors

In terms of timing of the impacts, only one significant difference is noted (Table 24). This significant difference (Sig: 0.023) is between caterers and non food suppliers, in which caterers (2.77) anticipate more immediate impact within two years or less than non food suppliers (3.64).

Table 24 The Statistical Significant Differences on Industry Trends of Timing of Impacts by Sectors

	Industry Trends	Sig.	Lower	vs.	Higher
1	The industry will intensify its focus on Food Safety and Health concerns through policies training	0.023	Caterers (2.39)	vs.	Non Food Suppliers (3.64)

Figure 30. By Sector – Increased concern on food safety and health by Timing of Impact



Analysis by Regions

Table 25 The Timing of Impacts of Industry Trends By Regions

	Industry Trends	Europe		America		Asia Pacific		Middle East & Africa	
		ST	LT	ST	LT	ST	LT	ST	LT
1	Increased competition in the airline industry	85.0%	15.0%	83.3%	16.7%	86.9%	13.1%	94.1%	5.9%
2	Increased security management	75.8%	24.2%	83.3%	16.7%	72.7%	27.3%	81.3%	18.7%
3	Outsourcing of food production	71.0%	29.0%	100.0%	0.0%	60.8%	39.2%	56.4%	43.6%
4	Outsourcing of catering logistics function	72.4%	27.6%	66.7%	33.3%	52.1%	47.9%	56.3%	43.7%
5	Increased role of distributors	67.8%	32.2%	66.7%	33.3%	72.7%	27.3%	62.6%	37.4%
6	Increased use of internet based IT	51.7%	48.3%	50.1%	49.9%	60.9%	39.1%	64.7%	35.3%
7	Increase in single seat class airlines	55.3%	44.7%	50.0%	50.0%	43.4%	56.6%	56.3%	43.7%
8	Increased Retail Sales on Board (RSOB)	68.9%	31.1%	83.4%	16.6%	60.9%	39.1%	66.6%	33.4%
9	Increased branded food products on tray sets	72.1%	27.9%	50.0%	50.0%	63.6%	36.4%	52.9%	47.1%
10	Reduction in packaging	79.3%	20.7%	83.4%	16.6%	69.5%	30.5%	64.7%	35.3%
11	Increased concerns on food safety and health	72.1%	27.9%	100.0%	0.0%	82.6%	17.4%	88.2%	11.8%
12	Increase in recycling	65.5%	34.5%	83.3%	16.7%	65.1%	34.9%	58.8%	41.2%
13	Growth in low cost airlines	77.0%	23.0%	100.0%	0.0%	100.0%	0.0%	64.6%	35.4%
14	Transparency in the supply chain	70.9%	29.1%	100.0%	0.0%	68.2%	31.8%	81.3%	18.7%
15	Reduction in return catering	54.7%	45.3%	83.4%	16.6%	59.1%	40.9%	81.3%	18.7%

All sectors believe that all industry trends have immediate impact on the industry, with the exceptions that there is an equal split (50%) on increased branded food production on tray sets by America (Table 25). Asia Pacific also has 56.6% of the respondents to believe that increased in single seat class airlines is a trend with long-term impact. Europe and Middle East & Africa agreed that increased competition in the airline industry is likely to be the most immediate impacting trends for the industry. All respondents based in Asia Pacific foresee that growth in low-cost airlines is to have impacts in less than two years (100%). Similarly, all respondents based in America, foresee for trends to have impacts in two years or less: outsourcing of food production, increased concerns on food safety and health, growth in low-cost airlines and transparency in the supply chain.

Significant Differences between Regions

No significant difference is noted among regions in terms of timing of the industry trends impacts to take place (Table 26).

Table 26 The Statistical Significant Differences on Industry Trends of Timing of Impacts by Regions

Industry Trends	Sig.	Lower	vs.	Higher
No significant difference				

IV. DEMOGRAPHIC DATA

The respondents were asked to indicate their demographic profile at the end of the online survey, including gender, age, job role, previous trade show attendance, and the length of service in the flight catering industry. The result is depicted in Table 27.

Contrary to the last year profile, the majority of the respondents this year are female (69.2%). In terms of age, the data reveals a diversity of age bracket: 25-34 years (20%), 35-44 years (36.3%), 45-54 years (27.4%) and 55+ years (16.3%).

In terms of their job role, the respondents profiles suggest that majority of the respondents' job roles are general management (49.2%), followed by sales and marketing (29.7%) and operations (17.8%). Four respondents, which represent 3.4% of the respondents, reported consultancy as their job role.

Nearly 80% of the respondents have attended between 1-10 trade shows during their flight catering career, and 17.4% of the respondents have attended more than 10 trade shows. Only minority of the respondents (5.3%) reported that the ITCA Trade Show and Conference 2008 in Nice, France was their first occasion attending such trade show.

Finally, the findings suggest that more than 75% of the respondents have worked for more than five years in the flight catering industry: 6-10 years (26.3%), 11-20 years (27.7%), 21-30 years (16.8%), and 30 years+ (4.4%). Only 24.8% of the respondents reported service of five years or less.

Table 27 Demographic Profile of the Respondents.

Gender			Job role		
Female	92	69.2%	General Management	58	49.2%
Male	41	30.8%	Operations	21	17.8%
Total	133	100.0%	Sales and Marketing	35	29.7%
			Consultant	4	3.4%
			Total	118	100.0%
Age			Years in industry		
25-34 years	27	20.0%	Up to 5 years	34	24.8%
35-44 years	49	36.3%	6-10 years	36	26.3%
45-54 years	37	27.4%	11-20 years	38	27.7%
55+ years	22	16.3%	21-30 years	23	16.8%
Total	135	100.0%	More than 30 years	6	4.4%
			Total	137	100.0%
Previous trade show attendance					
0 occasions	7	5.3%			
1-3 occasions	51	38.6%			
4-10 occasions	51	38.6%			
10+ occasions	23	17.4%			
Total	132	100.0%			

V. CONCLUSION

In conclusion, a few interesting findings are found in this survey in comparing it to the first survey in 2007. Some changes on overall top ranking and lowest ranking, as well as across sectors and regions suggest some patterns, which could be a helpful starting point for screening and monitoring the external issues and industry trends facing the industry.

External Issues

The result on the overall top ranking on external issues this year persists to be Hike in oil price, and also across sectors and regions, continuing the pattern from last year. Although the top rankings on level of concerns have changed this year, the three trends on last year's level of concern and level of impact still have major impact on the industry: hike in oil price, terrorists attacks in major cities, and higher taxation on air travel – they are the top rankings of impact in this year's survey. New to the top ranking list on level of concern this year is climate change and increased passenger security measures – two issues concerning the industry. In term of timing, the three trends mentioned above are perceived to have immediate impact within two years or less. An immediate impact is also forecasted by participants for increased passenger security measures, which was a new addition to this year list of concern.

Sectors. The existence of pattern between sectors is nearly non existence this year. The only exception is that some issues on the top rankings on level of impacts are shared by almost all sectors.

Regions. Compared to last year where similarities among regions prevail, this year results suggest similar patterns among two groups of regions. In general, there are some similar patterns between America and Asia Pacific, and also between Europe and Middle East.

Industry Trends

Several interesting findings in this year survey suggest that industry trends may have more temporary impact than external issues may have on the industry. Last year's top ranking on both level of involvement and level of impact, increased competition in the airline industry, only appear as top ranking on level of impact this year. *[Does the industry become less involved about airlines competition today? What made these changes?]*

Last year, increased concerns on food safety and health was only on top ranking list for level of involvement, whereas this year the trend is on top ranking for both level of involvement and level of impact. *[Did the industry involve in food safety and health issues because they anticipate immediate impact? What help them to project this?]* On the other hand, increase use of internet based Information Technology were on top rankings on both level of involvement and level of impacts last year, but they no longer are. In fact, one of the industry sectors, food suppliers, places the trend as one of their lowest rankings. *[Does the trend for the use of IT has now disappeared and been replaced by other trends?]*

The newly introduced on top ranking in terms of level of involvement this year are increase in recycling and outsourcing of food production, and in terms of level of impact is the growth in low cost airlines. *[Do the overall findings suggest that the trend within the industry have move toward the health and environmental conscious issues, as well as issues around innovation (e.g. recycling and outsourcing)?]*. These questions are a query to ponder for the practitioners in understanding the challenges and opportunities facing the industry in the years to come. The trends

are changing fast, and so are the challenges and the opportunities; as suggested by respondents, all industry trends are to have short-term impact within the next two years.

Sectors. The pattern across sectors this year are not apparent with a few exceptions: caterers share similar top ranking trends on level of involvement to the overall opinions, and airlines and caterers share similar top ranking trends on level of impact on overall opinions.

Regions. The similar patterns across regions are partial both on the level of involvement, and level of impact. On level of involvement, a few trends for Middle East & Africa are the only exceptions for the top ranking whereas only one trend is repeated for all regions for the lowest ranking. On the level of impact, Asia Pacific and Middle East & Africa share several trends with the overall top rankings, whereas one trend is similar for all regions.

The above practitioner's forecast need to be approached with vigilance, as the practitioners opinions are based on the demographic data of the respondents, mainly on the sector of the industry, and the regions of the respondents. Being acquainted with the demographic data of the respondents could enhance readers' understanding the sources of the bigger pictures painted.