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# Conversion of Food and Beverage Services Course to Outcomes-Based Education

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## Abstract

The study made use of mixed method in assessing the extent of conversion of food and Beverage Services Course to Outcomes-based Education using the AHLEI model. The research locale was primary the Aklan State University. The study compared and then harmonized competencies prescribed by TESDA and AHLEI. The competencies were classified into basic, common, core and elective based on the prescriptions of TESDA and were group in eight topics as suggested by ASU. The competencies were then assigned under lecture and laboratory where they apply. Forty-two competencies resulted in the process of harmonizing the TESDA, AHLEI and ASU competencies. The harmonized competencies were subjected to construct validity to limit them to food and beverage service by three experts. The experts suggested that topics on pricing be removed since these are taken in catering and convention- related courses. Of the original 42 competencies, 39 were left. The 39 harmonized competencies were submitted to the perusal of administrators and waitstaff in the food industry. The administration consisted of F & B managers, supervisors', coordinators and officers–in–charge while the waitstaff consisted of food attendants (waiters and waitresses), captain waiters, bartenders, bar captains, receptionist, wine waiters and cashiers. The topics of the competencies were found relevant. However, out of the 39 competencies, 24 were found highly relevant; ten relevant and 5, not relevant. The competencies were then placed in the proposed model OBE-compliant syllabus for Food and Beverage Service Course.

**Keywords:** Conversion; Outcomes-based education and harmonization

## Introduction

Hospitality industry must be staffed with personnel who are equipped with competencies to satisfy customer demands so as to keep the industry dynamic. A highly rigorous training in hospitality management is so far seen as the best experience students must acquire from specialized educational institutions in order to meet the current interests in and direction of global training. Adequate exposure and participation in practical with complete hands-on opportunities through authentic hospitality management activities may help produce the global manpower needs of hospitality industry.

Hospitality management education provided in college must be in consonance with the expectations of hospitality industry standards. In global scene, the American Hotel and Lodging Educational Institute (AHLEI) has been the forerunner in providing competencies that meet the standards of the industries. It has been seen that there is consistency in the core expectations of knowledge, skills and values of those working in hospitality industry. Six of the ten topics common to college programming and industry standards are customer and service satisfaction, professionalism, team work and interpersonal skills, sales and marketing, health and safety, and, operations all of which can be part and parcel of learning Food and Beverage Services [1].

Yet there is little research as to training of hospitality management students in order to satisfy their knowledge, skills and values that will meet the demands of the industry. Studies pertaining to hospitality management in the academe that are submitted in the business and management portfolio are anchored on conceptual work, extended literature reviews and report of small pilot studies. The United Kingdom higher education research assessment exercise, after approximately five-yearly peer evaluation exercise has viewed until 2001 that hospitality is "less mature as a sub-area" and that it has not grown into an impressive field of international quality, most of the time rated falling below national level [2-6].

For the most part, there are key areas in college programs that are not in industry standards. An effort must be exerted to bridge what the industry needs and what college education lacks to provide represents the areas of particular strength of the industry standards and which, therefore, must be provided by specialized educational institutions. These areas include presentation of required knowledge and skills in a practical industry context; emphasis on situational analysis, decision making and operational considerations in practical context; and, high priority on personal management, interpersonal skills, and adaptability to changing environment and situations [7-12].

### Statement of the problem

The major thrust of thestudy was to answer the question: What is the extent of conversion of Food and Beverage Services Course to Outcomes-based Education using the AHLEI model?

Specifically, the studyaddressed the following issues:

- What elements of TESDA Training Regulations are comparable to the AHLEI model in terms of competencies?

- What competencies prescribed by TESDA and those by AHLEI may be harmonized?

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- What outcomes-based assessment rubrics may be designed for the harmonized competencies of TESDA and AHLEI?

- What outcomes-based (OBE) course syllabus may be developed?

- What is the relevance of the harmonized standard competencies as validated by the administrators and waitstaff?

- What is the extent of preparation of Aklan State University for outcomes-based education for Food and Beverage Services Course?

## Methodology

### Research design

The study employed the mixed method of research, a third method that combines quantitative and qualitative research. Mixed method research is a composite of basic data types and methodological procedures. In a mixed method study, data are collected that will contain numbers and non-numbers along with methodologies categorized within a qualitative and quantitative framework [13,14].

Through the use of qualitative research, the study used case study to provide information on the common competencies prescribed by the TESDA Training Regulations for Food and Beverage Service NC III, the AHLEI curriculum for Food and Beverage Services, and, the Aklan State University course syllabus for Food and Beverage Services Schreiber and Asner-sellf define a case study as a systematic collection of information about a person, group or community; social setting; or event in order to gain insight into its functioning. The authors further describe case studies as time– and locale-bound because they examine comparative cases where subjects are similar in several key elements but are different in at least one way. This type of research mainly uses direct observations in collecting data for analysis. This qualitative research type was perceived to be appropriate in this study since the present undertaking attempted to describe the existing competencies of three entities and endeavored to harmonize them [15-17].

On the other hand, descriptive developmental research, a non-experimental research design, was employed in the study in developing a course syllabus based on the harmonized competencies of TESDA and AHLEI. Richey, Klein and Nelson, describe developmental research as one that typically involves situations in which the product development process used in a particular situation is described and analyzed and the final product is evaluated. This method was deemed highly appropriate in this study since the present undertaking aimed at developing an OBE-compliant course syllabus prototype and a set of holistic rubrics for assessing student outcomes in a selected topic [18-22].

Descriptive research was further used to describe the top ten competencies that industries perceived to be possessed by a skilled worker employed in the food and beverage services. This quantitative research type was also used to describe the acceptability of the developed syllabus as perceived by a pool of experts. Moreover, descriptive research was also utilized in the study in providing information about the extent of conversion of Food and Beverage Services Course to outcomes-based education by describing Aklan State University's extent of preparation for OBE [23-28].

### Respondents of the Study

The study involved three sets of respondents. The first set consisted of three experts in the field of food and beverage service – one from the National Capital Region, one from Boracay and the third, Aklan. Their expertise was sought for construct validation of the competencies. Specifically, their expert opinions were sought whether the competencies were within food and beverage service management [29,30].

The respondents comprising the second set were purposefully selected from the food and beverage industry. These respondents evaluated the relevance of the competencies to the food and beverage service. Among them were administrators [14, 29.78%] and waitstaff [33, 70.21%] members, all of whom were employed in five star hotels in Boracay at the time of the conduct of the study. The designations of the administrator and waitstaff respondents are tabulated in Table 1.

It can be gleaned from the data that the 29% of the respondents are administrators, majority of them are managers, a supervisor, a coordinator, and an officer-in-charge. The waitstaff respondents on the other hand and which comprised the true majority of the sample were composed mostly of food attendants [16, 34%], captain waiters [3, 6%], bar tenders [4, 9%], bar captains [2, 5%], receptionists [6, 13%] and a wine waiter and a cashier with equal frequencies and percentages [1, 2%]. Questionnaire with a cover letter were distributed to them and were retrieved days later.

The third set of respondents evaluated the proposed rubric for and performance assessment activity of a selected topic. They consisted of five professors and administrators in the discipline of hospitality management, four of whom had had experience in the food industry [31-36].

### Instrumentation

The study developed a paper-and-pencil test that was suggested to measure the knowledge and skills that would be acquired by students in one topic in the course, specifically the "Immersion" activity in the Laboratory Component of the topic: Advising on Menu Items. The written test was subjected to content validity by a pool of experts in this field. The twenty-item posttest was subject to content validity. The experts agreed that the posttest contents were within the scope of the abovementioned topic. Though no comment on the test items was elicited, the experts endorsed the use of the sample posttest [37-45].

The study further subjected the paper-and-pencil tests to reliability testing. Fifty students of Food and Beverage Services course were used as respondents for this purpose. Discrimination and difficulty indices were used in item analysis in order to identify good and bad items in

| Position | Designation | F | % |
|---|---|---|---|
| Administrator | Food and Beverage Manager | 10 | 23 |
| | Food and Beverage Supervisor | 1 | 2 |
| | Food and Beverage Coordinator | 1 | 2 |
| | Food and Beverage Officer-in-charge | 1 | 2 |
| | **Total** | **14** | **29%** |
| Waitstaff | Food attendant (waiter/waitress) | 16 | 34 |
| | Captain waiter | 3 | 6 |
| | Bar tender | 4 | 9 |
| | Bar captain | 2 | 5 |
| | Receptionist | 6 | 13 |
| | Wine waiter | 1 | 2 |
| | Cashier | 1 | 2 |
| | **Total** | **33** | **71%** |
| | **Grand Total** | **47** | **100%** |

**Table 1:** Designations of the Industry Evaluators.

the twenty-item posttest for Topic 4, specifically Specialist Advising on Menu Items. Score of the upper and lower 27% of the examinees were tabulated and compared. Fifteen (15) items in the paper-and-pencil test were found to be very good items ($DS_i > .7$; $DF_i \geq .4$ but $\leq .9$) while five (5) items were found to be good items [46-50].

In addition to this, the suggested holistic rubric that would assess the competency level of students was also evaluated by the same experts using a rubric that assesses rubrics an instrument adopted from IDE Corp. The instrument used three criteria: Rubric Area, Rubric Criteria, and, Rubric Content and Presentation. This sample holistic rubric had four scales as does rubric that assesses tasks, namely: Expert (4), Practitioner (3); Apprentice (2); and Novice (1) (Table 2).

It can be gleaned from the data that the rubric was viewed at an expert's level by the validators in two criteria: rubric criteria, and, rubric content and presentation with weighted mean values of 3.5 and 3.75, respectively. One criterion, rubric area, was seen of practitioner's level as reflected by its garnered mean equal to 3.25. In general, the rubric was perceived developed at an expert's level by the validators based on the grand mean equal to 3.5 [51-60].

Suggestions were further paid attention to and incorporated to further improve the final form of the assessment tool. The experts' comments and/or suggestions are organized in the following Table 3.

Though only some comments were elicited from the validators, an appreciation of the sample holistic rubric in all three criteria can be inferred from their comments.

Nevertheless, the comment which states: "Include performance criteria suggested by TESDA (RE: Training Regulations, NC III). Consider also the Evidence Guide," was pondered upon in finalizing the rubric and the performance assessment activity. This comment was taken seriously [61-65].

## Data gathering procedure

Prior to the conduct of the study, the researcher sought permission from the Executive Director of the College of Industrial Technology in Aklan State University. Upon receipt of permission grant, the study attempted to harmonize the competencies prescribed by the University, TESDA and AHLEI for Food and Beverage Services.

The study harmonized the competencies flagged by TESDA and AHLEI, the results of which were submitted for construct validation. The validated harmonized competencies were then subjected to review by administrators and waitstaff who were employed in the food and beverage service industry.

A suggested paper-and-pencil test was also subjected to construct validation and try-out. The scores obtained in the try-out were item analyzed to look for areas for improvement. Similar procedure was done with a proposed rubric and performance assessment activity of a selected topic.

## Statistical treatment

The study primarily used narratives in reporting the development of the OBE-compliant course syllabus prototype, rubrics and paper-and-pencil test. Further, descriptive statistics were used in reporting the results of the evaluation of the holistic rubrics and the course syllabus prototype. Here, mean and percentages were used.

Qualitative approach was used in the analysis of the data on construct validation of the harmonized standardized competencies as well as in the analysis of the appropriateness of the developed OBE-compliant model course syllabus.

In determining the relevance of the competencies, as well as, in identifying the top ten of these competencies to be possessed by skilled workers in the food and beverage services as perceived by industries, ranking was used in addition to weighted mean.

As regards the reliability testing of the paper-and-pencil tests, the study referred to the discrimination and difficulty indices in order to identify very good and good items. These plausible items were retained while those partially acceptable ones were further improved and/or modified. No poor items were found.

For convenience, the data were organized using an electronic spreadsheet, specifically Microsoft Excel for Windows version 2010. For accuracy of results, the study employed the use of Statistical Package for Social Sciences (SPSS) for Windows version 21.

## Summary

The study employed the mixed method of research, a combination

| Criteria | Expert (4) | Practitioner (3) | Apprentice (2) | Novice (1) | Mean | VD |
|---|---|---|---|---|---|---|
| Rubric Area | 1 | 3 | 0 | 0 | 3.25 | Practitioner |
| Rubric Criteria | 2 | 2 | 0 | 0 | 3.5 | Expert |
| Rubric Content and resentation | 3 | 1 | 0 | 0 | 3.75 | Expert |
| General Impression | | | | | 3.5 | Expert |

Legend: 3.5-4.0 – Expert
2.5-3.49 – Practitioner
1.5-2.49 – Apprentice
1.0-1.49 - Novice

**Table 2:** Sample Rubric Validation Results.

| Criteria | Comment and/or Suggestion | f |
|---|---|---|
| Rubric Area | • The holistic rubric uses descriptive measurements that can be used as reference in marking student's competence in the given task. | 1 |
| | • The descriptions in the rubric are comprehensible; it is easy to use. | 1 |
| | • Include performance criteria suggested by TESDA (RE: Training Regulations, NC III). Consider also the Evidence Guide. | 1 |
| Rubric Criteria | • The criteria in the holistic rubric make sense in rating student outcomes. | 1 |
| Rubric Content and Presentation | • The rubric measures outcomes in all aspects. Impressive! | 1 |
| | • An alignment of the rubric with the TESDA Training Regulations will help enhance the rubric. Congratulations! | 1 |

**Table 3:** Experts' Comments and/or Suggestions on Sample Rubric.

of qualitative and quantitative methods. Through the use of qualitative research, the study used case study to provide information on the common competencies prescribed by the TESDA Training Regulations for Food and Beverage Service NC III, the AHLEI curriculum for Food and Beverage Services, and, the Aklan State University course syllabus for Food and Beverage Services. On the other hand, descriptive developmental research, a non-experimental research design, was employed in the study in developing a course syllabus based on the harmonized competencies of TESDA and AHLEI. Further, descriptive research was used to describe the top ten competencies that industries perceived to be possessed by a skilled worker employed in the food and beverage services. This quantitative research type was also used to describe the acceptability of the developed syllabus as perceived by a pool of experts. Descriptive research was also utilized in the study in providing information about the extent of conversion of Food and Beverage Services Course to outcomes-based education by describing Aklan State University's extent of preparation for OBE.

The research locale was the Aklan State University College of Industrial Technology which is currently in the process of migrating from traditional teaching methods to outcomes-based education. The study focused on improving the existing course syllabus for Food and Beverage Services by migrating it to an OBE-compliant one. The study was succeeded in its attempt to describe how to incorporate into the existing syllabus the competencies prescribed by TESDA and the AHLEI model through the generosity and cooperation of its respondents who were education leaders and administrators in tertiary education, managers and supervisors, and waitstaff all in the field of hotel and restaurant management.

In the light of the specific problems, the study found the following:

## What elements of TESDA Training Regulations are comparable to the AHLEI model in terms competencies?

The competency standards prescribed by TESDA were standardized into four: basic, common, core and elective while the heart of American Hotel and Lodging Educational Institution (AHLEI) prescribed competencies for Food and Beverage Services center on the Food and Industry, Organization of Food and Beverage Operations, Fundamentals of Management, Food and Beverage Marketing, Nutrition for Food Service Operations, The Menu, Standard Product Costs and Pricing Strategies, and Preparing for Production. Generally, competencies found in the TESDA Training Regulations were overarching and could be harmonized with practically any of the AHLEI competencies which were content specific.

## What competencies prescribed by TESDA and those by AHLEI may be harmonized?

The attempt to harmonize the training regulations prescribed by TESDA and the competencies forwarded by AHLEI was realized by comparing and contrasting their contents in the light of the coverage of Food and Beverage Services course offered by Aklan State University. The harmonization of the competencies of the three documents was realized by consolidating the competencies of the TESDA Training Regulations for Food and Beverage Service NC III and the AHLEI forwarded competencies. The competencies were further classified, as recommended by TESDA, into basic, common, core and elective and were later assigned either to the Lecture Component of the Course or the Laboratory Component of the course as prescribed by CHED.

The TESDA, AHLEI and ASU competencies were harmonized under these topics:

- Advising on Menu Items,
- Problem Solving and Decision Making, and
- Transacting Business.

In addition to the topics above, TESDA and AHLEI competencies were also harmonized in these topics:

- Food and Beverage Marketing, and
- Standard Product Costs and Pricing Strategies.

## What outcomes-based assessment rubrics may be designed for the harmonized competencies of TESDA and AHLEI?

The outcomes-based assessment approaches proposed in the model syllabus favored holistic rubrics based on the currently utilized competency-based assessment activities in ASU. These included direct observation, field interviews, video logs, pamphlet and brochure making, portfolio, e-portfolio, restaurant immersion activities, case studies, case-in-point reviews, advertising (print and electronic), and comparative studies. The rubrics were proposed along with the learning outcomes that must be evident in the student output. The TESDA Training Regulation was used as major reference here.

## What outcomes-based (OBE) course syllabus may be developed?

The structure of the outcomes-based model syllabus for Food and Beverage Service Course was developed based primarily on harmonized standardized competencies, suggested holistic rubrics, and the values formation as advocated by ASU.

The harmonized competencies served as the core in developing a proposed model outcomes-based syllabus for Food and Beverage Services Course. The competencies were standardized into basic, common, core and elective as prescribed by TESDA and were assigned to either lecture or laboratory as mandated by CHED. These were then sequenced on the basis of requisite competencies in building more complex ones. Some complex competencies were further broken down to several simpler competencies which were assigned in the lecture component. Time frames were set for lecture and laboratory components: 21 and 33 hours, respectively. The assessment approaches were based on the suggested holistic rubrics arising from those that were practiced in ASU at the time of writing the study. These were further enhanced with the adoption of the assessment range prescribed by TESDA in combination with the clauses taken from several AHLEI-prescribed competencies.

To determine the appropriateness of the proposed model outcomes-based syllabus for Food and Beverage Operations, it was subjected to perusal by a pool of experts who have unstained career in the field of hotel and restaurant management. The results of the evaluation showed that the proposed outcomes-based model syllabus was appropriate for Food and Beverage Service at collegiate level. Due to the state of advancement of the competencies found by the experts, the resulting proposed model OBE-compliant syllabus for Food and Beverage Service Course was appropriately renamed Course Syllabus for Food and Beverage Service Management.

## What is the relevance of the harmonized standard competencies as validated by the industry?

The harmonized standard competencies were subjected to construct validation by three experts so as to limit the competencies within food

and beverage service. Three competencies pertaining to management and pricing were retained since they were within the scope of the model upon which the syllabus was to be patterned, AHLEI. The evaluators found the competencies appropriate at the collegiate level.

The harmonized competencies were then submitted to the evaluation of the food industry where a total of 47 respondents were sought. The results showed that generally, all the topics were highly relevant to food and beverage service. In summary, eight of the thirteen harmonized standardized competencies were found "highly relevant" and the other five, "relevant.

The top ten competencies were (in decreasing order):

- Identify and communicate issues arising from and possible solutions for nutrition concerns as they relate to food and wine service functions, including menu planning, purchasing, storing, preparation, recipe development, and serving food to guests;

- Plan for and participate in negotiations about an actual food and beverage service using standard recipes as well as procedures involved in using standard recipes before developing a menu;

- Lead workplace discussions on good nutrition and of the six basic nutrients;

- Communicate information and provide appropriate advice about recommended dietary allowances, the MyPyramid program, nutrition labeling and molecular gastronomy;

- Verbalize constructive contributions on management process in order to minimize food and beverage service errors that lead to customer complaints;

- Plan for and participate in negotiations about an actual food and beverage service using standard recipes as well as procedures involved in using standard recipes before developing a menu;

- Provide accurate information through the aid of mathematical and management concepts in the development of a feasibility study with at least one of the three types of marketing research that should follow such a study;

- Identify fundamental causes of problems relating to food and beverage production which may be rooted from roles of purchasing, receiving, storing, and issuing;

- Determine corrective action with the aid of mathematics and management concepts in handling customer complaints and/or requests; and

- Train small groups in the preparation of a market plan with emphasis on focusing on sales, traditional and electronic advertising, public relations, and publicity.

Generally, the administrators and waitstaff members of five star hotels found the competencies were found "highly relevant."

### What is the extent of preparation of Aklan State University for outcomes-based education for Food and Beverage Services Course?

The extent of the ASU preparation in terms of the placement of an OBE system was evaluated in two aspects: tangible and intangible. In so far as the tangible preparations that were being made by the University, the physical facilities and supplies required by CHED and TESDA for the training of students in hospitality management have

been satisfactory since the classrooms, laboratories, equipment, tools, cutleries, table, cloth, and other accessories and paraphernalia had been acquired except for the espresso machine.

In the intangible aspect of the preparation, it was found that the College of Industrial Technology, which is directly responsible for this aspect, only had the Mission and Vision Statements fully complied with. At the time of writing, the study found that that the preparations of CIT for the interrelated components of Program Educational Objectives, Program Outcomes and Curriculum Map were in progress. Further, the College was in the planning stage as far as the following components are concerned: Outcome-based Teaching and Learning Process, Program Assessment and Evaluation Process, and, Continuing Quality Improvement Program.

## Conclusion

Based on the foregoing, the following conclusions were derived:

- The competencies found in the TESDA Training Regulations were generally

- Overarching and could easily be harmonized with practically any of the AHLEI competencies which were content specific.

- The competencies of TESDA which were standardized into basic, common, core and elective were harmonized with the competencies prescribed by AHLEI in five content areas including Advising on Menu Items, Problem Solving and Decision Making, Transacting Business, Food and Beverage Marketing, and Standard Product Costs and Pricing Strategies.

- Holistic rubrics based on the harmonized standardized competencies were developed in the light of the learning outcomes prescribed by TESDA and were adopted as assessment approaches in the OBE-compliant model syllabus.

- An OBE-compliant model syllabus must contain the following elements: program and learning outcomes, competencies, methodology, and assessment approach.

- The competencies were highly relevant as perceived by the food service industry which rendered the OBE-compliant model syllabus for the Food and Beverage Service Course appropriate for collegiate level.

- The Aklan State University had satisfactorily prepared the tangible requisites of the hospitality management training of students but still in the process of completing the intangible aspects of establishing an OBE system.

## Recommendation

In the light of the abovementioned conclusions, the following recommendations were formulated:

- That the outcomes-based model syllabus be pilot-tested so as to assess its effectiveness;

- That the activities enveloped in the syllabus be patterned after the AHLEI model curriculum to assure the outcomes-based nature of the course;

- That the University develop its own performance rubrics for assessing the learning outcomes of the course;

- That more seminars and trainings be provided to the faculty in order to augment the limited methodology and assessment

approaches suggested in the syllabus and to equip them with the knowledge and skills on how to deliver outcomes-based education in the classroom;

- That the College of Industrial Technology prioritize the completion of the intangible aspects of the preparation for OBE most especially in redefining its program outcomes in the light of the recent mandates of CHED and TESDA;

- That the College consider allocating some budget for the acquisition of a set of espresso machine; and that;

- Future researchers further investigate the appropriateness of the syllabus by adopting a more acceptable instrument for evaluation.

## References

1. Brown G, Hepner K (2009) The waiter's handbook. Pearson Education South Asia Pte Ltd, Singapore.

2. Adler PA, Adler P (2009) Paradise Laborers: Hotel Work in the Global Economy. Cornell University Press, Ithaca, NY.

3. Ahmad N, Lequiller F, Marianna P, Pilat D, Schreyer P, et al. (2009) Comparing labour productivity growth in the OECD area: the role of measurement. OECD Science, Technology and Industry Working Papers 14: 1- 47.

4. Atkinson H, Brown JB (2010) Rethinking performance measures: assessing progress in UK hotels. International Journal of Contemporary Hospitality Management 13: 128.

5. Biggs K, Tang R (2009) Linking service to profit: the business case for service excellence. International Journal of Service Industry Management 14: 173.

6. Bernhardt A, Dresser L, Hatton E (2009) The coffee pot wars: unions and form restructuring in the hotel industry. In: Appelbaum E, Bernhardt AD, Murnane RJ (Eds) Low-Wage America: How Employers are Reshaping Opportunity in the Workplace. Russell Sage Foundation, New York.

7. Black SE, Lynch LM (2010) How to compete: the impact of workplace practices and information and information technology on productivity. Review of Economics & Statistics 83: 434-445.

8. Bowman JS, Wittmer DL (2009) The unfashionable Drucker: ethical and quality chic. Journal of Management History 6: 13-29.

9. Cariño C, De Vera R (2009) Fundamentals of food service management. Books Atbp Publishing Corp, Mandaluyong City.

10. Chiang CF, Back KJ, Canter D (2010) The impact of employee training on job satisfaction and intention to stay in the hotel industry. Journal of Human Resources in Hospitality and Tourism 4: 99-118.

11. Commission on Higher Education Memorandum Order 37 s. 2012.

12. D'Annunzio-Green N, Maxwell G, Watson S (2011) Human resource issues in international hospitality, travel and tourism: A snapshot. International Journal of Contemporary Hospitality Management 12: 215-216.

13. David JS, Grabski S, Kasavana M (2009) The productivity paradox of hotel-industry technology. Cornell Hotel and Restaurant Administration Quarterly 37: 64-70.

14. Davies D, Taylor R, Savery L (2009) The role of appraisal, remuneration and training in improving staff relations in the Western Australian accommodation industry: a comparative study. Journal of European Industrial Training 25: 366-373.

15. De Asis L, Catchillar U, Gapas R (2010) Food and beverage service fundamentals. Books Atbp, Publishing Corp.

16. Deloitte (2009) Food and Beverage Sector Productivity Study. Wellington, New Zealand.

17. Department of Labour (2010) The Workplace Productivity Challenge. Summary of the Report of the Workplace Productivity Working Group. Department of labour, Wellington, New Zealand.

18. Eaglen A, Lashley C, Thomas R (2010) The benefits of training in leisure retailing: a case study of McDonald's restaurants. Strategic Change 9: 333.

19. Evans Y, Wills J, Datta K (2009) Migrant division of labour in London's hospitality sector, paper presented at the 'Serving the New Economy" Workshop. Centre for Research on Work and Society, Toronto.

20. Fair H, Brooks J (2011) Effective training and scheduling make pursuit of productivity a labor of success. Nation's Restaurant News 38: 80.

21. Gavin JH, Mason RO (2009) The virtuous organization: the value of happiness in the workplace. Organizational Dynamics 33: 379.

22. Goldstein SM (2009) Employee development: an examination of service strategy in a high-contact service environment. Production and Operations Management 12: 186.

23. Gummesson E (2008) Productivity, quality and relationship marketing in service operations. International Journal of Contemporary Hospitality Management 10: 4.

24. Guthrie J (2011) High-involvement work practices, turnover, and productivity: evidence from New Zealand. Academy of Management Journal 44: 180-190.

25. Haktanir M, Harris P (2009) Performance measurement practice in an independent hotel context: a case study approach. International Journal of Contemporary. Hospitality Management 17: 39-50.

26. Hasan M, Kerr RM (2009) The relationship between total quality management practices and organisational performance in service organisations. The TQM Magazine 15: 286.

27. Hinkin TR, Tracey JB (2008) The cost of turnover. Cornell Hotel and Restaurant Administration Quarterly 41: 14-21.

28. Huselid MA (2009) The impact of human resource management practices on turnover, productivity, and corporate financial performance. Academy of Management Journal 38: 635-672.

29. Ilmakunnas P, Maliranta M, Vainioma J (2009) Worker turnover and productivity growth. Applied Economics Letters 12: 395-398.

30. Jacob-Guggenheim L, Ramos-Tumanan MA (2010) Competency-based learning guide in beverage management. C & E Publishing, Inc, Quezon City.

31. Johlke MC, Duhan DF (2009) Supervisor communication practices and service employee job outcomes. Journal of Service Research: JSR 3: 154.

32. Johnston R, Jones P (2008) Service productivity: towards understanding the relationship between operational and customer productivity. International Journal of Productivity and Performance Management 53: 201-213.

33. Kilic H, Okumus F (2010) Factors influencing productivity in small island hotels: evidence from Northern Cyprus. International Journal of Contemporary Hospitality Management 17: 315.

34. Kimes SE (2011) How product quality drives profitability. Cornell Hotel and Restaurant Administration Quarterly 42: 25.

35. Koys DJ (2009) How the achievement of human-resources goals drives restaurant performance. Cornell Hotel and Restaurant Administration Quarterly 44: 17.

36. Lashley C (2009) The Benefits of Training for Business Performance. In: D'Annunzio-Green N, Maxell GA, Watson S (Eds) Human Resource Management: International Perspectives in Hospitality and Tourism. London.

37. Lee SC, Barker SB, Kandampully J (2008) Technology, service quality, and customer loyalty in hotels: Australian managerial perspectives. Managing Service Quality 13: 423-432.

38. Lo K, Lamm F (2009) Occupational stress in the hospitality industry - an employment relations perspective. New Zealand Journal of Employment Relations 30: 23.

39. Martin CR, Horne DA, Chan WS (2008) A perspective on client productivity in business-to-business consulting services. International Journal of Service Industry Management 12: 137.

40. Milne S, Ateljevic J (2009) Technology and Service Quality in the Tourism and Hospitality Industry. In Kandampully J, Mok C, Sparks B (Eds) Service Quality Management in Hospitality, Tourism and Leisure. Haworth Press, New York.

41. Milne S, Mason D, Roberts E, Nodder C, Ateljevic J, et al. (2008) NZ Accommodation Providers & ICT: Impacts on Labour Use & Demand. Department of Labour, Wellington, New Zealand.

42. Milne S, Pohlmann C (2008) Continuity and Change in the Hotel Sector: Some Evidence from Montreal. In: Ioannides D, Debbage K (Eds) The Economic Geography of the Tourism Industry: A Supply-side Analysis. London.

43. Morey RC, Dittman DA (2008a) Evaluating a hotel GM's performance: a case study in benchmarking. Cornell Hotel and Restaurant Administration Quarterly 44: 53.

44. Neal A, West MA, Patterson MG (2009) Do organizational climate and competitive strategy moderate the relationship between human resource management and productivity? Journal of Management 31: 492-512.

45. New Zealand Tourism Strategy Towards 2010 (2001).

46. NZ CTU (2009) The Workplace Productivity Challenge: CTU Workplace Productivity Snapshot. Wellington, New Zealand.

47. Oosterhoff T (2009) Organizational culture and performance - evidence from the fast food restaurant industry. Food Service Technology 5: 23-34.

48. Parasuraman A (2009) Service quality and productivity: A synergistic perspective. Managing Service Quality 12: 6-9.

49. Perdigon G (2009) Food service management in the Philippines. C & E Publishing, Inc, Quezon City.

50. Pollert A (2009) Problems of hotel and catering workers routes redress in Britain, paper presented at the 'Serving the New Economy" Workshop, Centre for Research on Work and Society, Toronto.

51. Poulston J (2009) Ethical issues and workplace problems in commercial hospitality: a New Zealand study. Unpublished Doctoral Thesis, Auckland University of Technology, Auckland.

52. Restaurant Association of New Zealand (2009) Restaurant Industry Forecast.

53. Reynolds D (2009) An exploratory investigation of multiunit restaurant productivity assessment using data envelopment analysis. Journal of Travel and Tourism Marketing 16: 19-26.

54. Schreyer P, Pilat D (2009) Measuring productivity. OECD Economic Studies 33: 127-169.

55. Sharma A, Upneja A (2008) Factors influencing financial performance of small hotels in Tanzania. International Journal of Contemporary Hospitality Management 17: 504-515.

56. Sheehan EP (2010) The effects of turnover on the productivity of those who stay. The Journal of Social Psychology 133: 699-706.

57. Sigala M (2008) The information and communication technologies productivity on the UK hotel sector. International Journal of Operations & Production Management 23: 1224-1245.

58. Simons T (2009) The high cost of lost trust. Harvard Business Review 80: 18-19.

59. Statistics New Zealand (2008) Tourism Satellite Account 1997-2002. Wellington, New Zealand: Statistics New Zealand.

60. Statistics New Zealand (2009) Employment size groups for geographic units.

61. TESDA Training Regulations for Food and Beverage Service NC III

62. Therkelsen DJ, Fiebich CL (2008) The supervisor: the linchpin of employee relations. Journal of Communication Management 8: 120-129.

63. Tufts S (2009) We make it work: the cultural transformation of hotel workers in the city. Antipode 38: 350-73.

64. Wölfl A (2008) Productivity growth in services industries: is there a role for measurement? International Productivity Monitor 8: 66-80.

65. Wright P, Haggerty J (2009) Missing variables in theories of strategic human resource management: time, cause, and individuals. Paper presented at the CAHRS Working Paper Series (WP05-03), Cornell University, Ithaca, NY.