



RESEARCH ARTICLE

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Evaluating the Effectiveness of Training Methods on the Performance of Human Resources in Greek Hotel Businesses

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Abstract

The training of human resources in hotel businesses is very important since it is directly related to creating a competitive advantage by improving its performance. The main research objective of the present study is to investigate the effectiveness of training methods with regard to the improvement of human resources performance in hotel businesses. Field research was conducted by collecting quantitative data from 17/3/2022 to 17/5/2022 in Greece through a questionnaire from a "convenience" sample of 135 hotel employees. Exploratory and Confirmatory Factor Analysis was used to analyze the collected data statistically. The improvement of the performance of the human resources of a hotel is related to a mixture of training methods that favor formal and informal learning: Case Studies, Business Games and Mentoring. The results of this study have led a) to the creation and validation of four new Likert-type scales that other researchers in the future can use, and b) to the creation of specialized mixtures of training methods that hotel managers can apply to improve the performance of human resources in specific fields of interest.

Keywords: Hotels, Training, Performance, Human Resources, Greece

INTRODUCTION

The successive crises of recent years (economic crisis, refugee crisis, Covid-19 pandemic) have forced Greek hotel businesses to change the way they operate (Pappas, 2018; Stavrinoudis et al., 2022). The economic crisis forced hotels management to look for ways to reduce their operating costs, which often entailed reducing wages and increasing employees' working hours, resulting in the deregulation of the labor relations (Belias et al., 2017; Giannakis & Bruggeman, 2017). In the same way, the refugee crisis has significantly affected the hotel industry of Greek islands, as a result of which hoteliers are forced to make extra efforts to attract customers (Ivanov & Stavrinoudis, 2018; Tsartas et al., 2020), while the health crisis of Covid-19 prompted the management of Greek hotels to implement strict health protocols (use of masks, intangible transactions, etc.), which affected the way employees work and the way customers consume hotel services (Dimitrios et al., 2020; Stergiou & Farmaki, 2021).

Blackman and Ritchie (2008) and Madera et al. (2017) argue that to face the challenges that the above crises have created for hotel businesses, the performance of human resources (HR) must be strengthened in various fields such as customer service (Bavik, 2016), acceptance of new technology and innovation (Zopiatis & Theocharous, 2018), professionalism and willingness to learn through training (Guliyev et al., 2019) and acceptance of change and the need to adapt to the constantly changing



business environment (Cameron & Green, 2019). Park and Kim (2018) argue that to improve the performance of HR in adverse conditions, the development and transmission of knowledge, skills, and abilities must be strengthened. Sari and Sukmasari (2018) and Bhaskara and Filimonau (2021) argue that this can only be satisfied through training methods that favor the development of formal and informal learning. In that vein, the main research objective of the present study is to evaluate the extent to which specific training methods that favor the development of formal and informal learning are correlated with the improvement of human resource performance in the fields mentioned above. The findings of this study present elements of originality and scientific and practical contribution because they led to the validation of four new Likert-type scales that can be used by other researchers in the future and because they led to the proposal of specialized mixtures of training methods that can be applied to hotel businesses to improve the performance of HR in the fields of interest mentioned above.

LITERATURE REVIEW

Learning, Knowledge, and Training of HR in Hotel Businesses

Alerasoul et al. (2022) and Basten and Haamann (2018) argue that learning within a business is a mechanism that results in the transfer of knowledge and experiences from one employee to another. Sari and Sukmasari (2018) and Yuan and Chayanuvat (2021) add that learning helps HR to improve their knowledge to the current conditions, improving their performance at work. Following this, Ibidunni et al. (2018) and Sulieman (2019) add that knowledge is an intangible asset that resides in the minds of HR, in methods, routines, and organizational skills, as well as in the relationships that businesses maintain with their environment, while its main objective is to help HR and businesses respond to new challenges and opportunities.

Rasmussen and Nielsen (2011) and Kleefstra et al. (2020) argues that knowledge in the context of a business such as a hotel can be transferred through formal and informal learning. Formal learning is based on teaching and begins with the initiative of the management of a company; in other words, it is structured, institutional, and based on a formal training plan with specific objectives, while its application requires the presence of an instructor/specialist (Nugroho, 2018; Alfandi, 2020). On the contrary, the term informal learning includes the opportunities for learning that arise in a person's daily life. Therefore it is experimental, non-institutional, involuntary, and is a product of a different activity, e.g., a day at work or participating in an excursion. In other words, informal learning can occur inside or outside a hotel business, not based on a formal training plan, and has a continuous flow that does not stop and takes place independently of management initiatives (Jeong et al., 2018; Zia et al., 2022).

Based on their central characteristics, human resource training methods can be distinguished by those that favor formal learning and those that prefer informal learning. In the text below, human resource training methods that are more conducive to developing either formal or informal learning in hotels will be grouped.



A training method that favors formal learning is a Lecture, where knowledge is transferred to the trainees with the help of an instructor who follows a specific training program (Furunes, 2005). Another training method that is more conducive to the development of formal learning is that of Demonstration, where an experienced employee (specialist) shows less skilled employees the typical way one or more tasks are done in the hotel where they work to provide them with practical knowledge (Alalmal et al., 2020). Another training method that favors the development of formal learning is that of training with the guidance of a mentor (Mentoring). In this type of training, a senior and experienced hotel executive (the mentor) undertakes the guidance of an inexperienced employee (Miri et al., 2014). The mentor plays the role of trainer and advisor as they teach, guides, and simultaneously encourages the inexperienced employee (Luo et al., 2021).

Informal learning within a hotel is enhanced by the Internship training method, where an employee with little experience starts working in a business (usually for a lower salary) to gain work experience (Kukreti & Dani, 2020). Another training method that favors the development of informal learning is Business Games such as Role Playing, where different employees assume different roles and try to find solutions to problems they are given. The solution to these problems is not a given; each employee can deal with the problems and the other participants in their own special way (Martin et al., 2014). Another training method that favors the development of informal learning is that of Case Study, in which the trainees are asked to analyze and evaluate a problematic event or set of conditions (scenarios) to identify the causes of the problem and formulate a solution. Developing a solution to the problem presented through a Case Study usually requires a high degree of cooperation and communication between the participants since there is no given path to finding the solution (Radi Afsouran et al., 2018).

The Performance of HR in Hotel Businesses

To improve the performance of the hotel they work for, managers often focus on improving mechanisms and methods related to financial management, room management, etc. to reduce operating costs (Atkinson, 2006; Ribeiro et al., 2019; Asad et al., 2022). But Werlang and Rossetto (2019) and Putra et al. (2020) argue that in service businesses such as hotels, this is not enough, and performance improvement should focus on the way that HR performs in fields such as customer service (Atkinson & Brander Brown, 2001), acceptance of new technology and innovation (Fu, 2017), professionalism and acceptance of the need to acquire new knowledge (Guliyev et al., 2019), acceptance of change and the need to adapt to the constantly changing business environment (Kakarougas et al., 2021).

Beginning with the area of customer service, Bavik (2016) suggests that it is essential to improve HR performance in a way that meets the constantly changing and evolving needs of guests. For example, at the time of the outbreak of the Covid-19 pandemic, the demand for hotel product decreased significantly (Kakarougas & Stavrinoudis, 2021). To counter this negative development, hotel HR had to learn to follow a series of strict health protocols based on the use of protective equipment, and

contactless transactions (Dogan et al., 2020; Gursoy & Chi, 2020). Continuing with the acceptance of new technology and innovation, Dzhandzhugazova et al. (2016) and Zopiatis and Theocharous (2018) argue that HR must be trained for innovation and new technology to develop at two levels within a hotel. The level of processes is associated with the reorganization of the hotel's operations, mainly through new technology, and the level of the product is mainly associated with finding new sources of supply and the development of new production methods.

Following the above, Guliyev et al. (2019) argue that a condition for improving performance in the fields within a hotel is to strengthen the professionalism and willingness of HR to learn through training. Regarding the enhancement of professionalism, Elnaga and Imran (2013) argue that it is related to the professional competence an employee will feel when, through training, they acquire the knowledge and skills required to carry out their duties. In the same context, through education, the effect of obstacles to learning will be reduced (Chen & Cheng, 2012), while at the same time, the will to acquire new knowledge and skills will be strengthened (Marneros et al., 2020). Cameron and Green (2019) argue that hotel HR often does not accept change and the need to adapt to the constantly changing business environment. According to Field Ming-Chu and Meng-Hsiu (2015), this is due to a series of barriers (psychological, cultural, ethical, technological, organizational, etc.) that can manifest at the individual, group, and organizational levels. Kakaroungkas and Stavrinoudis (2021) argue that through education, the power of obstacles to change will be reduced on the one hand because the reasons that force any change will be explained, and on the other hand because the benefits that will arise due to this change will be highlighted.

Research Hypotheses

The above analysis showed that improving the performance of hotel businesses is often linked to improving the performance of HR in various fields. Where the improvement of the performance of HR in hotel businesses depends to a significant extent on the transfer of knowledge through training methods, which favor formal and informal learning, based on this conclusion, the purpose of the research is to confirm the following hypotheses:

H₁: The performance of HR in the area of customer service is equally enhanced through training methods that favor formal and informal learning.

H₂: The performance of HR in the area of accepting new technology and innovation is equally enhanced through training methods that favor formal and informal learning.

H₃: The performance of HR in the area of professionalism and acceptance of the need to acquire new knowledge is equally enhanced through training methods that favor formal and informal learning.

H₄: The performance of HR in the area of change acceptance and the need to adapt to the constantly changing business environment is equally enhanced through training methods that favor formal and informal learning.



METHODS

Questionnaire Design and Pilot Research

For the needs of this research, a new prototype questionnaire was developed, the design of which was carried out in two stages. In the first stage, the method of content analysis (Kleinheksel et al., 2020) of the results of previous research was used, which led to the emergence of critical elements that, in the context of a hotel, are related to the one hand to the organizational learning and training and on the other hand to the performance of HR. In the second stage, the data collected in the first one were consolidated and semantically synthesized to facilitate the creation of a new questionnaire, which was tested through a pilot survey (Brace, 2018) among HR in the hotel sector, aiming at the one hand to ensure item content validity and on the other hand to identify points that make it challenging to complete.

The outcomes of the pilot survey led to the creation of a prototype questionnaire that is characterized by simplicity and ease of understanding. In this way, it was sought, on the one hand, to minimize the chances of collecting data of poor quality due to the lack of understanding of the questionnaire and, on the other hand, to reduce the chances of refusal to complete it due to a high degree of difficulty (Jordan & Troth, 2020).

Following the above, the questionnaire used in the research consisted of five sections. The first four sections in total contained 24 five-point Likert-type scales (Kyriazos & Stalikas, 2018), which aimed to investigate the degree to which HR in the hotel sector agree or disagree that specific training methods (Lecture, Demonstration, Mentoring, Internship, Business Games and Case Study) enhance the performance of HR in the fields of customer service, acceptance of new technology and innovation, professionalism and acceptance of the need to acquire new knowledge and change acceptance and the need to adapt to the constantly changing business environment. The fifth section aimed to collect demographic data.

Data Collection

To collect data, the questionnaire created through the above-described procedure was converted into an electronic form which was accompanied by a letter that presented to the survey participants: the purpose of the survey, the profile of the survey organizers, and the steps that would be followed to protect their data and anonymity (Saleh & Bista, 2017). The questionnaire -in an electronic form- was distributed via e-mail and social media networks from 17/3/2022 to 17/5/2022 to employees in Greek hotels. Due to time constraints, the Snowball Sampling method Field (Leighton et al., 2021) was used to complete the field research because it facilitates the distribution of many questionnaires in a relatively short period. The above resulted in the distribution of 552 questionnaires and the collection of a “convenience” sample (Etikan et al., 2016) of 135 completed questionnaires (24.45% response rate). Efforts were made to increase the number of completed questionnaires (email and social network



reminders). Still, they had little positive effect because in May, the workload of hotel employees was high due to preparations for the summer season.

Data Analysis

Exploratory and confirmatory factor analysis was used to analyze the data collected. The EFA, with the help of the statistical package SPSS 28, followed the principal component extraction method, which was based on the varimax rotation for the extraction of factors. This method aims to create a new data structure by revealing a set of latent variables that cause observed variables to correlate with each other (Osborne, 2014). This data analysis methodology is considered the most suitable for investigating complex problems in the hospitality sector (Vasilagos et al., 2017; Arasli et al., 2020; Ciasullo et al., 2021). In continuation of the above, the extraction method of the principal component was completed in two stages (Osborne, 2014). In the first stage, it was verified that the variables under examination are linearly correlated with each other and that there is a satisfactory degree of sampling adequacy. The correlation matrix, the Kaiser-Meyer-Olkin index per variable, the general Kaiser-Meyer-Olkin index, and the Bartlett test of sphericity were used. In the second stage, the criteria of Percentage of variance explained, scree plot test, and interpretability criterion were used to achieve the extraction of a small number of factors (Osborne, 2014).

The findings of EFA were confirmed through CFA. To achieve this, a first-order latent variable model per hypothesis was created and validated, which consisted of dependent and independent variables. The dependent variables are those with one-way arrows pointing to them and include the training methods that a hotel's management may choose. In contrast, the independent variables do not have one-way arrows pointing to them and include the factors that emerged from the EFA (Rai et al., 2019). Following that, with the help of the statistical package AMOS 26, the Structural Equation Modeling was carried out following the estimation method of maximum likelihood, which led to the creation of the first-order latent variable models (Kline, 2015), which is considered appropriate for the hotel sector (Chen & Cheng, 2012; Wang, 2016). The validation of the first-order latent variable models was based on the satisfaction of the following conditions: unidimensionality of the variables, achievement of validity, reliability, and high p-value. The CFA outcomes interpretation was based on the connection of the validated first-order Latent Variables Models (LVMs) with the literature review findings.

At this point, it is essential to note that the combination of the above methods is considered particularly effective in the investigation of similar issues in the tourism and hotel sector and is therefore applied by researchers (Chen & Chen, 2010; Leung & Baloglu, 2015).



RESULTS

Characteristics of the sample

From the study of the table below (Table 1), it can be concluded that most of the research participants have: a high level of education, a long work experience in the hotel industry (years of service and age), and a high qualification (work in management positions and positions of responsibility). Tourangeau et al. (2000) argue that research participants with characteristics like these are more likely to understand the questions and answer based on their knowledge and experience, which reduces the bias that can be caused due to the misunderstanding of the questions asked.

Table 1. Characteristics of the sample

Men: 61.5%	Women: 38.5 %	Education level	Years of work experience
Job position	Age	Postgraduate: 20.7%	1 ≥ 10: 42.9%
General Managers: 32.6%	18 ≥ 30: 19.3%	Bachelor degree: 48.1%	11 ≥ 20: 28.8%
Heads of Department: 28.9%	31 ≥ 40: 34.1%	Vocational training: 23.7%	21 ≥ 30: 20.2%
Department supervisor: 28.1%	41 ≥ 50: 28.9%	High School degree: 6.7%	30 ≥ : 8.1%
First line HR: 10.4%	51 ≥ 67: 17.7%	Other: 0.8%	

Source: Field survey, 2022

Exploratory factor analysis results

Table 2 presents the results of the EFA, which are characterized by a high degree of validity and reliability, according to the scores on the indicators: Cronbach's Alpha, Composite reliability, Convergent validity, and Construct reliability.

Table 2. The results of the EFA

Variables	Factor 1.1 FL*	Communalities	Variables	Factor 1.2 FL*	Communalities
H1: The performance of HR in the area of customer service is equally enhanced through training methods that favor formal and informal learning					
V1_4: Lecture	.856	.755	V1_1: Demonstration	.619	.514
V1_5: Case Study	.803	.714	V1_2: Mentoring	.739	.621
V1_6: Business Games	.854	.734	V1_3: Internship	.819	.676
Cronbach's Alpha: .825 Composite reliability: .876 Convergent validity: .702 Construct reliability: .876			Cronbach's Alpha: .616 Composite reliability: .772 Convergent validity: .533 Construct reliability: .772		
H2: The performance of HR in the area of accepting new technology and innovation is equally enhanced through training methods that favor formal and informal learning.					
V2_4: Lecture	.781	.696	V2_1: Demonstration	.789	.660
V2_5: Case Study	.874	.789	V2_2: Mentoring	.854	.745
V2_6: Business Games	.838	.715	V2_3: Internship	.670	.479
Cronbach's Alpha: .810 Composite reliability: .871 Convergent validity: .692 Construct reliability: .871			Cronbach's Alpha: .692 Composite reliability: .817 Convergent validity: .600 Construct reliability: .817		
H3: The performance of HR in the area of professionalism and acceptance of the need to acquire new knowledge is equally enhanced through training methods that favor formal and informal learning.					
V3_1: Demonstration	.503	.578	V3_1: Demonstration	.570	.578
V3_4: Lecture	.786	.631	V3_2: Mentoring	.800	.663
V3_5: Case Study	.852	.765	V3_3: Internship	.809	.656
V3_6: Business Games	.873	.770			
Cronbach's Alpha: .808 Composite reliability: .847 Convergent validity: .590 Construct reliability: .847			Cronbach's Alpha: .645 Composite reliability: .775 Convergent validity: .540 Construct reliability: .775		
H4: The performance of HR in the area of change acceptance and the need to adapt to the constantly changing business environment is equally enhanced through training methods that favor formal and informal learning.					



V4_4: Lecture	.811	.702	V4_1: Demonstration	.676	.608
V4_5: Case Study	.864	.750	V4_2: Mentoring	.874	.793
V4_6: Business Games	.820	.743	V4_3: Internship	.833	.698
Cronbach's Alpha: .812			Cronbach's Alpha: .759		
Composite reliability: .871			Composite reliability: .840		
Convergent validity: .692			Convergent validity: .638		
Construct reliability: .871			Construct reliability: .840		

Source: Field survey, 2022

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

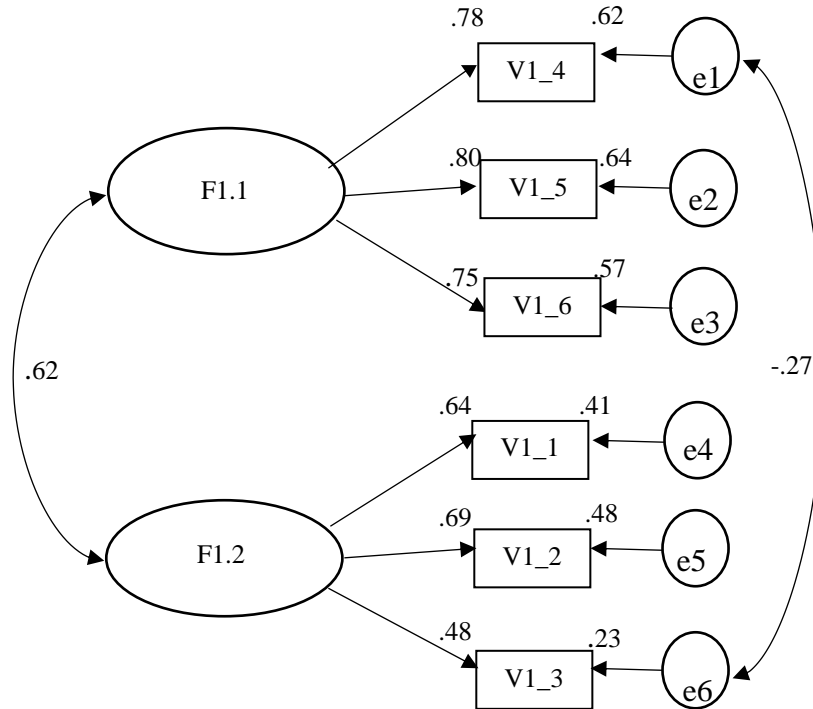
FL*: Factor Loadings smaller than 0.5 were suppressed and were not included in the table.

Based on the study of Table 2 it can be concluded that the EFA managed to create new data structures per hypothesis by revealing sets of observed interrelated variables. The above data structures explain most of the total variance of the original variables per hypothesis (H1: 66.903%, H2: 68.063%, H3: 67.731% and H4: 71.585%) and at the same time are characterized by low complexity. An exception to this is the 3rd hypothesis which is characterized by relatively high complexity due to the cross-loadings of “V3_1: Demonstration”. Finally, all hypotheses were confirmed since it has been found that HR performance in the fields under consideration is improved through mixtures of training methods that favor formal and informal learning, respectively.

Confirmatory factor analysis results

The first-order Latent Variables Model (Figure 1) has Construct and Discriminant validity, Internal and Composite reliability, and a high P-value score, but it does not have: a) Unidimensionality of the variables/elements (V1_3, FL < 0.5), b) high score of Convergent validity and c) high score of the Average variance extracted. Nevertheless, the lack of Unidimensionality can be accepted due to the good fit of the first-order latent variable model to the Fitness Indexes presented below in Figure 1 (Zainudin, 2012), while the failure to achieve Convergent validity and the low degree of Average variance extracted are accepted because of the high Composite reliability score (Fornell & Larcker, 1981). Based on the qualitative characteristics that are presented in Table 3, the first-order Latent Variables Model (Figure 1) is validated but with reservations and proves that Latent Structures F1.1 and F1.2 are correlated with each other (covariance: .62).

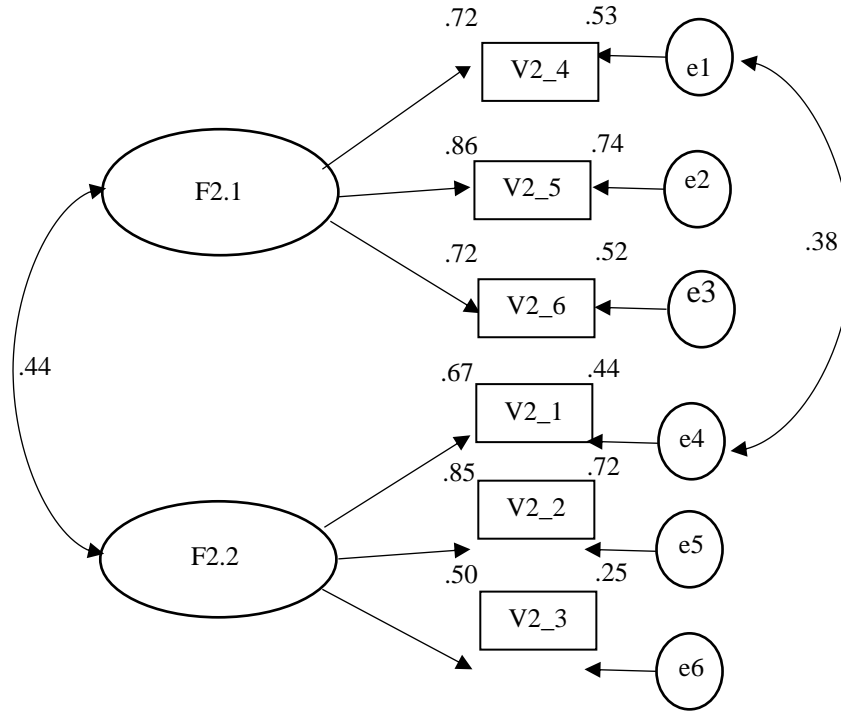
Figure 1. Correlation of training methods with the improvement of human resource performance in the field of customer service in hotels



Chi-square = 8.466; Degrees of freedom = 7; P-value= .293 CMIN/DF= 1.209 RMSEA= .040; RMR= .028; GFI= .980; AGFI= .939; NFI= .964; RFI= .924; IFI= .994; CFI= .993

The following first-order LVMs (Figures 2, 3 and 4) are characterized by Uni-dimensionality of the variables/elements, Validity, Reliability, and a high level of probability (p-value), since all the corresponding criteria are covered (Table 3).

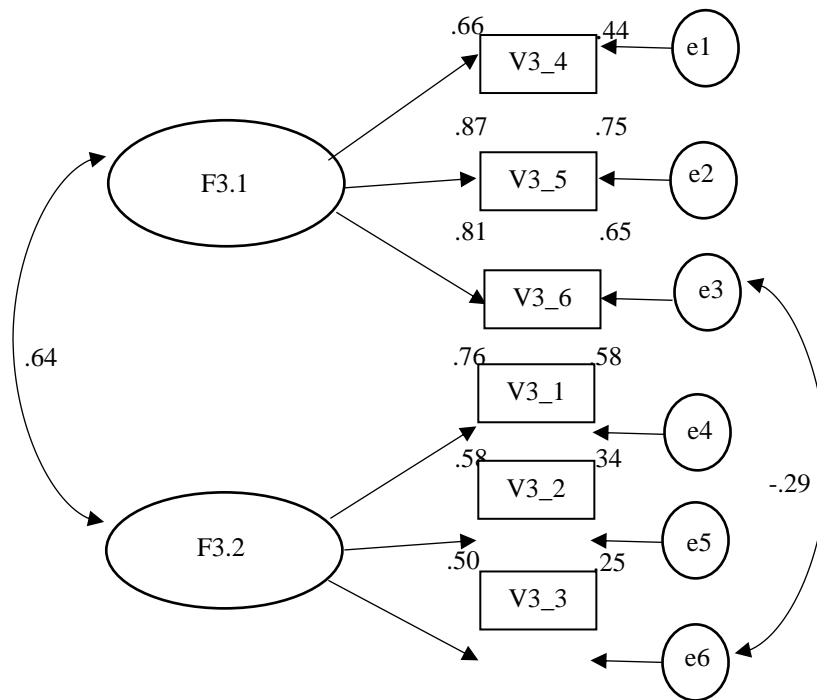
Figure 2. Correlation of training methods with the improvement of human resource performance in the field of acceptance of new technology and innovation in hotels.



Chi-square =11.463; Degrees of freedom = 7; P-value= .120 CMIN/DF= 1.638 RMSEA= .069;
RMR= .029; GFI= .972; AGFI= .917; NFI= .957; RFI= .908; IFI= .983; CFI= .982

The first-order Latent Variables Model (Figure 2) proves that Latent Structures F2.1 and F2.2 are correlated with each other (covariance: .44).

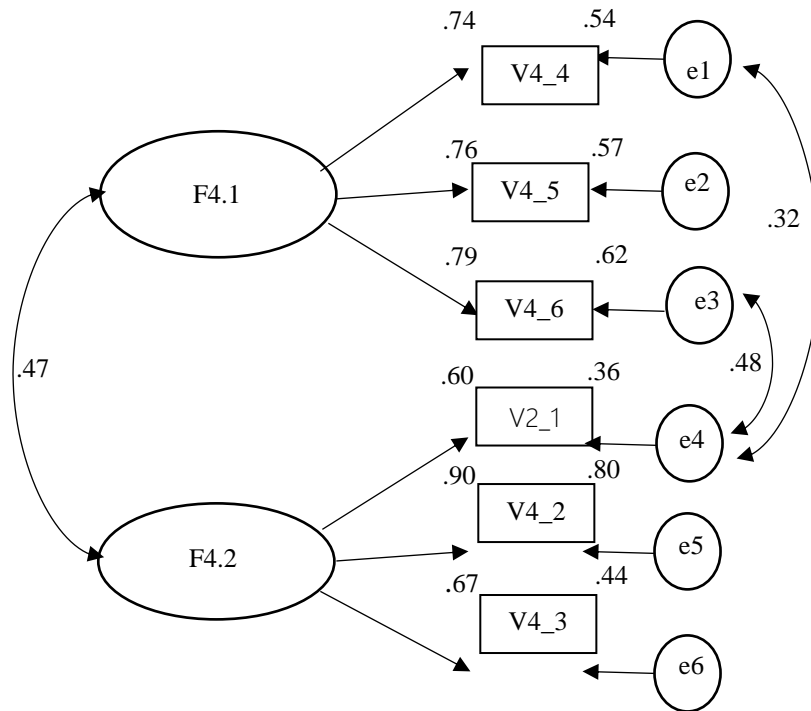
Figure 3. Correlation of training methods with the improvement of human resource performance in the field of professionalism and acceptance of the need to acquire new knowledge in hotels



Chi-square = 8.898; Degrees of freedom = 7; P-value= .260 CMIN/DF= 1.271 RMSEA= .045; RMR= .024; GFI= .979; AGFI= .937; NFI= .965; RFI= .925; IFI= .992; CFI= .992

The first-order Latent Variables Model (Figure 3) proves that Latent Structures F3.1 and F3.2 are correlated with each other (covariance: .64). At this point it is important to note that the variable V3_1: Demonstration according to the results of the EFA is correlated with both first-order latent variables. For this reason, an attempt was made to construct a first-order Latent Variables Model that would correlate V3_1 with both first-order latent factors. But during the evaluation process it was found that this model did not meet the minimum requirements of the validation criteria. This led to the rejection of that model and the creation of the Figure 3 shown above.

Figure 4: Correlation of training methods with the improvement of human resource performance in the field of the acceptance of change and the need to adapt to the constantly changing business environment in hotels



Chi-square = 9.319; Degrees of freedom = 6; P-value= .156 CMIN/DF= 1.553 RMSEA= .064; RMR= .029; GFI= .978; AGFI= .923; NFI= .969; RFI= .923; IFI= .989; CFI= .988

The first-order Latent Variables Model (Figure 4) proves that Latent Structures F4.1 and F4.2 are correlated with each other (covariance: .47).

Table 3 below presents the degree of the satisfaction of the conditions that the validation of the first-order latent variable models was based on.

Table 3. The degree of satisfaction of the first-order LVMs validation conditions

Validation conditions	Figure 1	Figure 2	Figure 3	Figure 4	Criteria
Unidimensionality	Not Fulfilled *	Marginally Fulfilled	Marginally Fulfilled	Fulfilled	Variables Factor Loadings >0.5 (Zainudin, 2012; Gallagher & Brown, 2013)
Convergent validity	Not Fulfilled ** (.488)	Fulfilled (.533)	Marginally Fulfilled (.502)	Fulfilled (.561)	AVE > 0.5 (Fornell & Larcker, 1981)
Construct validity	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fitness Indexes (Gallagher & Brown, 2013)
Discriminant validity	Fulfilled	Fulfilled	Fulfilled	Fulfilled	No redundant items existence according to the modification indices (Zainudin, 2012; Gallagher & Brown, 2013)
Internal reliability	Fulfilled Cronbach's Alpha (.773)	Fulfilled Cronbach's Alpha (.782)	Fulfilled Cronbach's Alpha (.781)	Fulfilled Cronbach's Alpha (0.806)	Cronbach's Alpha > 0.5 (DeVellis, 2003)
Composite reliability	Fulfilled (.848)	Fulfilled (.869)	Fulfilled (.854)	Fulfilled (.883)	Composite reliability score >0.6 (Fornell & Larcker, 1981; Zainudin, 2012)
Average Variance Extracted	Not Fulfilled ** (.488)	Fulfilled (.533)	Fulfilled (.502)	Fulfilled (.561)	AVE >0.5 (Fornell & Larcker, 1981)
P-value	Fulfilled (.293)	Fulfilled (.120)	Fulfilled (.260)	Fulfilled (.156)	Probability level > 0.05 (Gallagher & Brown, 2013)

* Accepted due to good fit of the first-order latent variable model to the Fitness Indexes (Zainudin, 2012).

** Accepted due to the high score of composite reliability (Fornell & Larcker, 1981).

DISCUSSION

The study of the first-order LVMs developed and confirmed above leads to the confirmation of the set of hypotheses since it was found that in a hotel business knowledge can be transferred through a mixture of training methods that favor formal and informal learning, a finding that is also supported by previous research (Rasmussen & Nielsen, 2011; Kleefstra et al., 2020). Through the further analysis of all the above first-order LVMs, specific training methods will be identified that favor the improvement of the performance of HR per field of interest.

Training methods that improve the performance of hotel human resources in the field of customer service

The study of Model 1 leads to the conclusion that the improvement of the performance of a hotel's HR in the field of customer service is more related to the training methods that favor informal



learning (Jeong et al., 2018; Zia et al., 2022) and less with training methods that favor formal learning (Nugroho, 2018; Alfandi, 2020). Analytically, it was found that the performance of a hotel's HR in this field is primarily related to the training method of the Case Study (Radi Afsouran et al., 2018) and secondary with the training methods of Business Games (Martin et al., 2014) and Lectures (Furunes, 2005). The training methods of Demonstration (Alalmal et al., 2020) and (Miri et al., 2014), were found to be less correlated with improving the performance of a hotel's HR in the field of customer service, while Internship (Kukreti & Dani, 2020) correlates poorly with the improvement of the performance of HR in this field.

Training methods that improve the performance of hotel HR in the field of acceptance of new technology and innovation

The performance of a hotel's HR in the field of acceptance of new technology and innovation is equally related to training methods that favor informal learning and formal learning. This conclusion is based on the finding that the Case Study method and the Mentoring method correlate in an equally strong way with improving the performance of a hotel's HR in this area. The training methods Lecturing, Business Games and Demonstration, are correlated in an equally less strong way with improving the performance of a hotel's HR in the field of acceptance of new technology and innovation, while the training method of Internship, correlates poorly with the field in question.

Training methods that improve the performance of hotel HR in the field of professionalism and acceptance of the need to acquire new knowledge

Improving the performance of a hotel's HR in the field of professionalism and acceptance of the need to acquire new knowledge is more related to the training methods of Case Study and Business Games that favor informal learning. While the training methods Lectures and Demonstration that favor formal learning are less correlated with improving the performance of a hotel's HR in the field under consideration. Finally, the training methods Mentoring, and Internship are poorly correlated with the improvement of the performance of a hotel's HR in the field of professionalism and acceptance of the need to acquire new knowledge.

Training methods that improve the performance of hotel HR in the field of acceptance of change and the need to adapt to the constantly changing business environment

The study of Figure 4 leads to the conclusion that the improvement of the performance of the HR of a hotel in the field of acceptance of change and the need to adapt to the constantly changing business environment is primarily related to the training method of Mentoring that favors formal learning more. Secondly, the improvement of HR performance in this field is related to the training methods Case Study and Business Games which favor informal learning and Lectures which favor formal learning. Finally, the training methods of Demonstration and Internship were found to be less correlated with the improvement of the performance of a hotel's HR in the field of acceptance of change and the need to adapt to the constantly changing business environment.



CONCLUSIONS

The main research objective of this study was to evaluate the extent to which specific training methods that favor the development of formal and informal learning are correlated with the improvement of human resource performance. To achieve this goal, a new questionnaire was created which was used to collect data that was analyzed through the combined application of exploratory and confirmatory factor analysis methods. Because of this, this research holds elements of originality and scientific contribution as it led to the validation of four new (prototype) Likert-type scales which can be used by other researchers in the future in order to measure the degree to which specific training methods are associated with improving the performance of hotel HR in the fields of: customer service, acceptance of new technology and innovation, professionalism and acceptance of the need to acquire new knowledge and acceptance of change and the need to adapt to the ever-changing business environment.

In addition, this research resulted in the validation of four new first-order LVMS which identified training methods that are strongly or less strongly correlated with the improvement of human resource performance in the aforementioned areas of interest. This on a practical level helps Greek hotel managers to invest in training methods with a strong impact on improving the performance of human resources, avoiding the investment of resources in training methods with low returns per field of interest, an element particularly useful in times of crisis.

It is important to note that the findings of this research were based exclusively on the statistical analysis of quantitative data collected from a convenience sample of hotel employees in Greece. This means that future research could be based on the one hand on the collection and processing of qualitative data and on the other hand, on a representative and random sample of the total Greek population of hotel employees. These could lead to a better understanding of the impact of training methods on the performance of HR in the Greek hotel sector.

Author Contributions

Christos Kakaroukas wrote the sections: Literature review, Questionnaire design, pilot research, Data analysis (the Confirmatory Factor Analysis part), Results and Discussion, conducted the Confirmatory Factor Analysis and shaped the final form of the entire text.

Efthymios Papageorgakis wrote the sections: Abstract, Introduction, Research hypotheses, Data collection, Data analysis (the Exploratory Factor Analysis part), and Conclusions, conducted the Field Research and the Exploratory Factor Analysis.

Competing interests

No competing interests can be identified.

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Ethical Considerations

The Department of Tourism Economics and Management of the University of the Aegean and the Department of Tourism Management of the University of West Attica permitted the researchers to conduct field research. The researchers used a questionnaire for the data collection. The questionnaire -in an electronic form- was distributed via e-mail and social media networks to employees in Greek hotels. The data analysis methodology ensured the anonymity of the participants.

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