

Examining the Validity of Organizational Behavior Measurement Scales in the Greek Hospitality Industry

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Abstract Leadership has been a focal point of academic and practitioner interest for over three decades, with evidence suggesting complex relationships between leadership styles, communication satisfaction, and group dynamics. This study aimed to evaluate the psychometric properties of three measurement instruments for these constructs within the Greek hotel industry. Employing Exploratory Factor Analysis and Cronbach's Alpha on data collected from 367 Greek hotel employees, the findings supported the reliability and validity of the scales for use in this context.

Keywords: Leadership Styles, Communication Satisfaction, Group Dynamics, Four and Five-Star Hotels, Greek Hotels

INTRODUCTION

During the past decade, the contemporary business landscape has been characterized by heightened volatility, uncertainty, complexity, and ambiguity, exacerbated by recurrent economic, environmental, and health crises (Rossidis et al., 2021a; Rossidis et al., 2021b; Belias et al., 2022a; Skagias et al., 2023). Organizational survival and competitive advantage necessitate the development of robust strategic capabilities (Viterouli et al., 2024a; Viterouli et al., 2024b; Belias et al., 2024a).

Leadership is critical in enhancing employee performance and fostering a customer-centric orientation within organizations (Jiang et al., 2020; Ntalakos et al., 2022b). The leader-follower relationship is dynamic, with the leader's role evolving from a unilateral authority figure to a collaborative partner (Brownwell, 2010). Kouzes and Posner (2004) emphasize the symbiotic nature of this relationship.

Leadership style significantly impacts group dynamics and organizational outcomes (Ntalakos et al., 2024a,c; Belias et al., 2024b). Effective leadership is contingent upon cultivating a shared organizational vision, values, and purpose among team members (Sheard & Kakabadse, 2004). Identifying the appropriate leadership style approaches to foster cohesive and high-performing teams is a critical area of scholarly inquiry.

Effective communication transcends information dissemination and serves as a cornerstone for organizational success. Organizations can achieve their desired outcomes by fostering employee motivation by clearly communicating goals and objectives (Clampitt & Downs, 1993). Communication within organizations is a multifaceted phenomenon, encompassing three primary levels: interpersonal, intergroup, and organizational (Ntalakos et al., 2023b). Additionally, communication can manifest in three distinct forms: verbal, non-verbal, and written (Ober, 2001).

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The direction and flow of communication vary based on an organization's hierarchical structure, encompassing top-down, bottom-up, and horizontal (lateral) communication styles (Postmes, 2003).

This study aims to develop, validate, and employ a research instrument to examine the interrelationships among leadership styles, communication satisfaction, and group dynamics within the hospitality industry. Prior research has underscored the need to measure these constructs comprehensively in the hotel context. Consequently, this study will test the instrument in four- and five-star Greek hotels, given Greece's prominence in the global tourism and hospitality sector.

LITERATURE REVIEW

Definition of Leadership Styles

Leadership is directly and strongly connected with a hotel's efficiency (Belias et al., 2021a; Belias et al., 2021b). During the past twenty years, academics and practitioners have investigated the role of different leadership styles in a hotel company's effective and productive outcome (Zerva et al., 2024). To become more successful leaders, hotel managers must understand the leadership style they should adopt. In general, most leaders adapt their leadership style to suit their situation.

Leadership style is defined as how a leader chooses to lead and interact with his/her followers (Northouse, 2018). It refers to a leader's behavior, attitude, and action toward his/her followers (Ntalakos et al., 2023c). Every leadership style directly affects how a leader makes decisions, communicates a shared vision, motivates followers, and creates the appropriate working conditions (Bwalya, 2023).

In other words, leadership styles express how a leader manages the organization/business responsible for it. According to Ntalakos et al. (2023a), leadership styles can describe the values, beliefs, ethics, and preferences of the leader when he/she is attempting to effectively lead a hospitality organization (such as a hotel company). There are several leadership styles that a hotel manager can adopt regarding the different dynamics, productivity, culture, and groups that he/she wants to deliver to the hotel's management (Rabiul et al., 2021; Belias et al., 2023a,b).

Transformational leadership is one of the most well-known leadership styles adopted in the hotel industry. The transformational leadership style (TFL) was first introduced by Burns (1978). He described TFL as the ideal leadership style between leaders and followers (Hoch et al., 2018; Gui et al., 2020). Later, Bass (1985) extended the theory of

TFL by suggesting that TFL can enhance the significance of employees' tasks and motivate them to do their best and sacrifice their interests for the benefit of the organization. Further, Bass and Avolio (1997) extended the concept of TFL. Transformational leaders are the kind of leaders who motivate followers with their ideals and moral values. Also, transformational leaders would create an inspiring and articulate vision that would fulfill the organization's and employees' goals and higher performance expectations (Sung et al., 2018).

Another leadership style that prevails in the hospitality industry is transactional. The transactional leadership style is connected with the fact that followers are rewarded when they accomplish specific goals and performance criteria (Trottier, Van Wart & Wang, 2008; Sung et al., 2018). According to Bass and Avolio (1994), transactional leaders encourage both employee rewards and punishment. More specifically, hotel managers provide employees with contingent rewards when they fulfill specific obligations and tasks, whereas they punish them when hotel employees show no satisfying performance behavior.

On the contrary, the Laissez-faire leadership style is related to the complete absence of leadership even though immediate actions must be taken to correct several hotel management mistakes. Laissez-faire leaders usually adopt a "hands-off" behavior and allow situations to occur in their way without interfering (Fouad, 2019; Mwesigwa, 2018). These leaders do not take responsibility for their actions; they postpone choices and avoid making any decisions. Hence, laissez-faire managers provide no feedback to the subordinates. As a result, the employees perform less than they should (Belias et al., 2021b).

Finally, academics have examined the effect of other leadership styles in the hospitality industry, such as the servant leadership style, the authoritative leadership style, and the ethical leadership style (Huertas-Valdivia et al., 2019; Kaya and Karatepe, 2020; Bavik, 2020). However, the authors of this research have decided to focus only on three leadership styles (transformational, transactional, and laissez-faire) as these styles are the most representative in the hotel industry (Ntalakos et al., 2024a).

Instrument Tool for the Measurement of Leadership Styles

Avolio and Bass (2004) created one of the most famous measurement models, which has been used by several academics in different scientific fields over the past twenty years. The Multifactor Leadership Questionnaire (MLQ 5x) measures "a broad range of leadership types from passive leaders, to leaders who give contingent rewards to followers,

to leaders who transform their followers into becoming leaders themselves” (Mind Garden, 2024).

More specifically, the three leadership styles that MLQ-5x measures are the following (Giannakos et al., 2024b; Mind Garden, 2024):

- *Transformational Leadership Style*: In this leadership style, managers focus on inspiring and motivating their followers to be a part of their shared vision of the organization’s future. The dimensions of the transformational leadership style are the following:
 - *Idealized Influence (Attributed)*: The leader has the charisma to be confident and focused on high ideals and ethics.
 - *Idealized Influence (Behavior)*: The leader is committed to the organization’s values, beliefs, and mission.
 - *Inspirational Motivation*: The leader can inspire his/her subordinates and communicate a shared vision to the followers to encourage them to fulfill the vision.
 - *Intellectual Stimulation*: The leader motivates his/her followers to think creatively when solving problems.
 - *Individualized Consideration*: The leader advises, supports, and pays attention to the followers’ needs.
- *Transactional Leadership Style*: In this leadership style, managers pay extra attention to the relationship between reward and performance. These leaders encourage followers to improve their performance, reward them for their satisfying performance, and punish them for low interest or inefficient task execution. The dimensions of the transactional leadership style are the following:
 - *Contingent Reward*: The followers must fulfill several tasks and requirements. If they fulfill them, they will be materially and psychologically rewarded.
 - *Management-By-Exception Active*: The leader ensures that all standards are met.
- *Passive Leadership Style*: This leadership style is described as a lack of leadership. These types of leaders need more leadership skills and are afraid to make decisions or take any actions. The dimensions of the passive leadership style are the following:
 - *Management-By-Exception Passive*: The leader interferes only when mistakes have occurred.
 - *Laissez-Faire*: The leader does not make any decisions, avoids taking action, and does not take any responsibility.

Definition of Communication Satisfaction

Communication is a critical organizational behavior variable that can enhance the performance of a hotel company. Effective communication can be crucial in an organization, including personal relationships, work environments, and employee relationships (Plooy & Bear, 2018; Giannakos et al., 2024).

Communication satisfaction includes the fulfillment individuals experience when interacting with others. The concept of communication satisfaction refers to the quality of communication, the level of clarity in exchanging messages, the sense of connection established, and the effectiveness of the communication process in achieving the desired outcome (Giannakos et al., 2024).

According to Aspridis et al. (2018), communication needs to fulfill seven characteristics (7Cs) to be satisfied. These characteristics are the following:

- *Complete*: The message has to include all information to achieve its goal. The message should answer the following questions: “Who,” “What,” “When,” “Where,” “Why,” and “How.”
- *Conciseness*: The message must be brief and complete.
- *Consideration*: The message should be prepared based on its receivers.
- *Concreteness*: The message should be concrete.
- *Clarity*: The message should be concise and written in simple words.
- *Courtesy*: The message should consider the receivers’ feelings and characteristics.
- *Correctness*: The message should have the correct spelling, grammar, and syntax.

Instrument Tool for the Measurement of Communication Satisfaction

Downs and Hazen (1977) developed the Communication Satisfaction Questionnaire (CSQ) in order to examine the relationship between job satisfaction and communication. This measurement tool consists of eight variables which are used to explain the factor of communication satisfaction (DeConinck et al., 2008):

- *General Organizational Perspective*: It refers to the organization’s overall information. It includes information about the financials of the organization or any upcoming changes.
- *Organizational Integration* refers to the information employees receive about the work environment.

- *Personal Feedback* refers to the feedback the employees receive about their working status.
- *Relation with Supervisor*: It includes all the upward and downward channels when communicating with the supervisors.
- *Horizontal-Informal Communication*: It refers to the fact that horizontal and informal communication is accurate.
- *Relation with Subordinates*: It includes all the upward and downward channels when communicating with the subordinates.
- *Media Quality* refers to the level at which meetings are well organized and contain the correct information.
- *Communication Climate* refers to communication on an organizational and personal level. This communication includes items such as motivating and stimulating employees to meet organizational goals.

Definition of Group Dynamics

Kurt Lewin introduced the concept of group dynamics (1951). He used the term to describe the powerful and complex social processes that emerge in groups (Ntalakos et al., 2024b,d; Ntalakos et al., 2022a).

Moreover, Forsyth (2019) has defined group dynamics as: “*The influential interpersonal processes that occur in and between groups over time. These processes determine how members relate to and engage with one another and the group’s inherent nature and trajectory: the actions the group takes, how it responds to its environment, and what it achieves*”.

Group dynamics includes the investigation of the following vital subjects (Forsyth, 2019):

- *Inclusion and Identity*: This issue investigates if human beings prefer to be a part of a group or isolate themselves. In addition, it reflects how group experiences affect individual’s identities.
- *Formation*: It refers to the people that form a group. Many times, people prefer to create new groups or join existing groups.
- *Cohesion and Development*: It refers to why a group is cohesive.
- *Structure*: It refers to the group members’ norms, roles, and interrelationships.
- *Influence* refers to why the group members conform to the group’s standards or prefer to remain independent.
- *Power*: It refers to why some members are more powerful than others.
- *Leadership*: It refers to the member or members that would lead the group.

- *Performance*: It refers to the group’s performance. Is this performance more effective in groups or when people work alone?
- *Decision-Making*: It refers to the decisions that a group has to make.
- *Conflict in Groups* refers to the conflicts, arguments, and problems caused by the group members.

Instrument Tools for the Measurement of Group Dynamics

The Group Dynamics Inventory (GDI) was introduced by Phan et al. (2004) to measure group dynamics. In GDI, the variable of group dynamics is explained by the following three dimensions:

- *Altruism* is the skill that people have to put themselves “in other people’s shoes” and help them unconditionally.
- *Universality* is defined as the feeling that people share common problems and are not alone in life.
- *Cohesiveness* is defined as a situation in which people are united as one person and feel respect and trust from the other members of the group.

THE METHODOLOGY OF THE RESEARCH

The Participants

The population of this research consisted of employees who worked in four and five-star hotels in the broader area of Greece, such as Attica, Thessaloniki, Crete, and Peloponnesus. The sample of this research consisted of employees who worked in four- and five-star hotels that were retrieved from the Hellenic Chamber of Hotels Database (HCH, 2024). The sampling method was convenience sampling due to the researchers’ easy access to managers of specific four- and five-star hotels. This fact earned time and cost for the researchers to analyze their data quicker than usual. More specifically, the authors telephoned hotel managers and received their permission to send the questionnaires to them. Consequently, the hotel managers distributed the electronic questionnaires to the employees. Also, hotel managers informed the personnel that their participation would be anonymous and voluntary and that all data would be used only for research purposes.

Finally, the invitation was sent to 34 hotel managers (hotels). The 34 hotel managers agreed and sent the electronic questionnaire to their employees. Eventually, 367 employees answered the questionnaire without any missing values. The questionnaire was hosted on Google Forms from April to July 2023.

Most of the sample are women (57.5%) under 30 (34.6%). Regarding marital status, most of them are single (46.1%) and have worked in the hotel industry for the last five years

(36.0%). Most of the sample has a College degree (41.6%). Finally, most of the sample works in reception (26.4%) or housekeeping (28.1%).

Table 1: Demographics of the Sample (N = 367)

		Frequency	Percent
Gender	Male	156	42.5
	Female	211	57.5
Age	< 30	127	34.6
	31-40	106	28.8
	41-50	76	20.7
	> 50	58	15.9
Marital Status	Single	169	46.1
	Married	123	33.5
	Divorced	75	20.4
Years of Employment in the Hotel Industry	1-5	132	36.0
	5-10	97	26.4
	10-15	67	18.2
	15-20	56	15.2
	>20	15	4.2
Level of Education	High School Graduate	98	26.7
	College Graduate	153	41.6
	Bachelor's Degree	67	18.2
	Master's Degree	49	13.5
Work Section	Reception	97	26.4
	Housekeeping	103	28.1
	Bar/Restaurant	49	13.3
	Kitchen	53	14.4
	Financial Office	21	5.7
	Spa	11	2.9
	General Duties	14	3.8
	Management	19	5.4

Instruments/Measurement Tools of the Research

This research is based on an electronic questionnaire comprising three measurement tools. These tools specify the three critical variables of this research: a) Leadership styles, b) Communication satisfaction, and c) Group dynamics.

The first instrumental tool was used to measure the different leadership styles. More specifically, the researchers used the Multiple Leadership Questionnaire 5x (MLQ-5x) introduced by Avolio and Bass (2004). "This tool contains 45 questions measured by a 5-point Likert scale. The values of this model range from 0 to 4 (0 = Not at all, 1 = Once in a while, 2 = Sometimes, 3 = Fairly often, 4 = Frequently, if not always). MLQ-5x model measures three types of leadership styles: A) Transformational leadership, which

contains five dimensions: i) Idealized Influence – Attributes (4 items/questions), ii) Idealized Influence – Behaviors (4 items/questions), iii) Inspirational Motivation (4 items/questions), iv) Intellectual Stimulation (4 items/questions), and v) Individual Consideration (4 items/questions). B) Transactional leadership, which contains two dimensions: i) Contingent Reward (4 items/questions), ii) Management-by-Exception Active (4 items/questions). C) Passive leadership, which contains two dimensions: i) Management-by-Exception Passive (4 items/questions), ii) Laissez-Faire (4 items/questions). Apart from the leadership styles, the MLQ-5x model measures the outcome of the leadership styles. This outcome consists of the following three dimensions: i) Extra effort (3 items/questions), ii) Effectiveness (3 items/questions), iii) Satisfaction with leadership (3 items/questions)".

The second instrumental tool was used to measure the communication satisfaction variable. This tool was introduced by Downs and Hazen (1977) (Communication Satisfaction Questionnaire). *“This tool contains 46 questions measured by a 7-point Likert scale (1 = Very dissatisfied, 2 = Dissatisfied, 3 = Slightly dissatisfied, 4 = Indifferent, 5 = Slightly satisfied, 6 = Satisfied, 7 = Very satisfied). Communication Satisfaction Questionnaire consists of eight primary dimensions: a) General organizational perspective (5 items/questions), b) Organizational integration (5 items/questions), c) Personal feedback (5 items/questions), d) Relation with supervisor (5 items/questions), e) Horizontal - informal communication (5 items/questions), f) Relation with subordinates (5 items/questions), g) Media Quality (5 items/questions), h) Communication climate (5 items/questions). Apart from the above sub-variables of communication satisfaction, this tool measures job satisfaction (2 items/questions) and job productivity (2 items/questions)”*.

The final instrument tool was used to measure the variable of group dynamics. More thoroughly, group dynamics was measured through the Group Dynamics Inventory (GDI) introduced by Phan et al. (2004). *“GDI includes 20 questions measured through a 4-point Likert Scale (1 = Strongly disagree, 2 = Disagree, 3 = Agree, 4 = Strongly agree). Group Dynamics is divided into three dimensions: a) Cohesiveness (10 items/questions), b) Altruism (10 items/questions), and c) Universality (10 items/questions)”*.

Data Analysis

As mentioned, this research aimed to evaluate a Greek version of three instrumental tools (MLQ-5x Questionnaire, Communication Satisfaction Questionnaire, GDI) that can be used in Greek four- and five-star hotels. The authors investigated the tools’ validity and internal consistency based on statistical methods of Exploratory Factor Analysis and Cronbach’s Alpha Coefficient. More specifically, the tools’ validity and adequacy were examined through Kaiser –Meyer–Olkin (KMO) and Total Variance Explained (TVE). KMO measure should be between 0.8 and 1 so that the sample would be considered adequate. If the value of KMO is less than 0.6, then the sample would be considered inadequate. The percentage of TVE should be higher than 50%, and all loadings should be more than 0.40 in order to be accepted. As far as Cronbach’s Alpha Coefficient is concerned, all items should be accepted with more than 0.40.

RESULTS

The first instrument analyzed through Exploratory Factor Analysis is the Multiple Leadership Questionnaire 5x (MLQ-5x) (Avolio & Bass, 2004). EFA (Exploratory Factor Analysis) investigated the evaluation of twelve sub-variables (five sub-variables regarding the Transformational Leadership Style, two sub-variables relating to the Transactional Leadership Style, two sub-variables regarding the Passive Leadership Style, and three sub-variables regarding the outcome of the leadership).

Table 2: Factor Analysis Results Regarding Leadership Styles (Avolio & Bass, 2004)

Variables	Items	Communalities	Loadings	KMO	p-Value	% of Total Variance
<i>Transformational Leadership Style Variables</i>						
Idealized Influence Attributed	Item 10	.828	.910	.804	.000	73.994
	Item 18	.792	.890			
	Item 21	.862	.928			
	Item 25	.478	.691			
Idealized Influence Behavior	Item 6	.947	.303	.668	.000	53.909
	Item 14	.779	.873			
	Item 23	.775	.797			
	Item 24	.685	.817			
Inspirational Motivation	Item 9	.787	.887	.835	.000	75.137
	Item 13	.732	.856			
	Item 26	.696	.834			
	Item 36	.791	.889			
Intellectual Stimulation	Item 2	.654	.809	.754	.000	71.403
	Item 8	.692	.832			
	Item 30	.716	.846			
	Item 32	.797	.891			

Variables	Items	Communalities	Loadings	KMO	p-Value	% of Total Variance
Individual Consideration	Item 15	.604	.777	.688	.000	59.277
	Item 19	.584	.764			
	Item 29	.469	.685			
	Item 31	.715	.845			
<i>Transactional Leadership Style Variables</i>						
Contingent Reward	Item 1	.545	.738	.787	.000	66.161
	Item 11	.642	.801			
	Item 16	.751	.867			
	Item 35	.708	.842			
Management by Exception Active	Item 4	.475	.689	.722	.000	56.958
	Item 22	.442	.665			
	Item 24	.702	.838			
	Item 27	.660	.812			
<i>Passive Leadership Style Variables</i>						
Management by Exception Passive	Item 3	.275	.525	.692	.000	46.882
	Item 12	.562	.750			
	Item 17	.520	.721			
	Item 20	.518	.720			
Laissez - Faire	Item 5	.675	.822	.811	.000	70.597
	Item 7	.691	.831			
	Item 28	.791	.889			
	Item 33	.667	.817			
<i>Output of Leadership Variables</i>						
Extra Effort	Item 39	.855	.925	.746	.000	89.913
	Item 42	.912	.955			
	Item 44	.930	.965			
Effectiveness	Item 37	.819	.905	.841	.000	82.181
	Item 40	.823	.907			
	Item 43	.858	.926			
	Item 45	.787	.887			
Satisfaction	Item 38	.907	.952	.500	.000	90.693
	Item 41	.907	.952			

According to Table 2, all sub-variables of leadership styles, as well as the sub-variables of the leadership outcome, are acceptable since the KMO value (Column 5 in Table 2) is more significant than 0.50 and Bartlett's test p-value significance (Column 6 in Table 2) is 0.000. As a result, this is a consistent sample. The values of the communalities on all sub-variables are more significant than 0.40, so all loadings can be examined. However, Item 3 of Management, by exception, is a passive sub-variable that shows a low communality score (0.275), so Item 3 was excluded from further analysis. In addition, all loadings reveal the high validity of all sub-dimensions since all loadings have values greater than 0.40. The only exception to this phenomenon comes from the sub-variable Idealized Influence behavior (Transformational leadership style). More thoroughly, EFA

showed that the items of this sub-variable are extracted to two factors (Items 14, 23, and 24 are extracted on Factor 1, and Item 6 is extracted on Factor 2). Since creating a factor with only one item is unacceptable, the researchers decided to exclude Item 6 from further analysis.

The Communication Satisfaction Questionnaire is the second instrument analyzed through Exploratory Factor Analysis (Downs and Hazen, 1977). EFA (Exploratory Factor Analysis) evaluated eight sub-variables of communication satisfaction: General organizational perspective, Organizational integration, Personal feedback, Relation with supervisor, Horizontal-informal communication, Relation with subordinates, Media quality, and Communication climate.

Table 3: Factor Analysis Results Regarding Communication Satisfaction (Downs & Hazen, 1977)

Variables	Items	Communalities	Loadings	KMO	p-Value	% of Total Variance
<i>Communication Satisfaction Variables</i>						
General Organizational Perspective	Item 6	.737	.859	.833	.000	73.312
	Item 12	.759	.871			
	Item 13	.750	.866			
	Item 16	.663	.814			
	Item 17	.756	.869			
Organizational Integration	Item 4	.793	.891	.866	.000	79.458
	Item 5	.769	.877			
	Item 10	.813	.902			
	Item 11	.808	.899			
	Item 15	.790	.889			
Personal Feedback	Item 7	.538	.734	.852	.000	71.489
	Item 8	.831	.912			
	Item 9	.791	.890			
	Item 14	.745	.863			
	Item 18	.669	.818			
Relation with Supervisor	Item 20	.795	.892	.864	.000	78.648
	Item 22	.806	.898			
	Item 24	.779	.883			
	Item 29	.776	.881			
	Item 34	.776	.881			
Horizontal Informal Communication	Item 28	.230	.479	.828	.000	65.873
	Item 30	.803	.896			
	Item 31	.799	.894			
	Item 32	.817	.904			
	Item 37	.646	.804			
Relation with Subordinates	Item 42	.741	.861	.858	.000	79.061
	Item 43	.750	.866			
	Item 44	.869	.932			
	Item 45	.773	.879			
	Item 46	.821	.906			
Media Quality	Item 25	.689	.830	.898	.000	78.625
	Item 33	.798	.893			
	Item 35	.805	.897			
	Item 36	.849	.921			
	Item 38	.791	.889			
Communication Climate	Item 19	.758	.871	.884	.000	77.108
	Item 21	.781	.884			
	Item 23	.781	.884			
	Item 26	.788	.888			
	Item 27	.747	.864			

According to Table 3, all sub-variables of communication satisfaction are acceptable since the KMO value (Column 5 in Table 3) is more significant than 0.50, and Bartlett’s test p-value significance (Column 6 in Table 3) is 0.000. As a result, this is a consistent sample. The values of the communalities on all sub-variables are more significant than 0.40, so all loadings can be examined. However, Item 28 of Horizontal Informal Communication shows a low communalities score (0.230), so Item 28 was excluded from

further analysis. In addition, all loadings reveal the high validity of all sub-dimensions since all loadings have values greater than 0.40.

The third and final instrument analyzed through Exploratory Factor Analysis is the Group Dynamics Inventory (Phan et al., 2004). EFA (Exploratory Factor Analysis) evaluated three sub-variables of group dynamics: cohesiveness, altruism, and universality.

Table 4: Factor Analysis Results Regarding Group Dynamics (Phan et al., 2004)

Variables	Items	Communalities	Loadings	KMO	p-Value	% of Total Variance	
<i>Communication Satisfaction Variables</i>							
Altruism	Item 1	.366	.605	.643	.000	45.839	
	Item 2	.503	.709				
	Item 3	.570	.755				
	Item 4	.542	.736				
	Item 5	.311	.558				
Cohesiveness	Item 6	.576	.712	.863	.000	50.1	64.1
	Item 7	.531	.703				
	Item 8	.709	.830				
	Item 9	.658	.789				
	Item 10	.760	.835				
	Item 11	.553	.720				
	Item 12	.551	.742				
	Item 13	.748	.310	.807			
	Item 14	.729	.493	.697			
Item 15	.598	.767					
Universality	Item 16	.500	.707	.748	.000	54.858	
	Item 17	.547	.739				
	Item 18	.523	.723				
	Item 19	.668	.817				
	Item 20	.505	.710				

According to Table 4, all sub-variables of group dynamics are acceptable since the KMO value (Column 5 in Table 4) is more significant than 0.50, and Bartlett’s test p-value significance (Column 6 in Table 4) is 0.000. Hence, this is a consistent sample. The values of the communalities on all sub-variables are more significant than 0.40, so all loadings can be examined. However, Item 1 and Item 5 of Altruism show low communality scores (0.366 and 0.311, respectively), so Item 1 and Item 5 were excluded from further analysis. Hence, the researchers executed EFA again for the other three items of Altruism (Items 2, 3, and 4). The results indicated that this sub-variable is constant since KMO is valued at 0.610 (p-value sig. = 0.000). In addition, communalities ranged from .545 - .751, and all loadings were acceptable since the value was from .738 to .867 (Item 2 loading = .762, Item 3 loading = .867, and Item 4 loading

= .738). Moreover, EFA extracted factors regarding the sub-variable of Cohesiveness. The first factor consisted of Items 6, 7, 8, 9, 10, 11, 12, and 15, whereas the second factor consisted of Items 13 and 14. Since creating a factor with only two items is unacceptable, the researchers decided to exclude Items 13 and 14 from further analysis. Finally, all loadings of sub-variable Universality were accepted since their value ranged between .707 and .817.

After executing EFA, the researchers examined the internal consistency of the scales using Cronbach’s alpha coefficient. Table 5 describes the Cronbach’s alpha coefficients of the sub-variables of all instruments. All variables in all scales are accepted since the values of Cronbach’s alpha coefficients range from .629 to .944 (acceptable values must be greater than .600) (Gliem & Gliem, 2003).

Table 5: Cronbach's Alpha Results Regarding Leadership Styles (Avolio & Bass, 2004), Communication Satisfaction (Downs & Hazen, 1977), and Group Dynamics (Phan et al., 2004)

	Variables	Number of Items	Cronbach's Alpha
Leadership Styles and Outcomes	Idealized Influence attributed	4	.880
	Idealized Influence behavior	3	.787
	Inspirational Motivation	4	.888
	Intellectual Stimulation	4	.866
	Individual Consideration	4	.769
	Contingent Reward	4	.827
	Management by exception active	4	.743
	Management by exception passive	3	.629
	Laissez - Faire	4	.860
	Extra Effort	3	.944
	Effectiveness	4	.927
	Satisfaction	2	.897
Communication Satisfaction	General Organizational Perspective	5	.908
	Organizational Integration	5	.935
	Personal Feedback	5	.896
	Relation with supervisor	5	.932
	Horizontal Informal Communication	4	.905
	Relation with subordinates	5	.934
	Media Quality	5	.931
	Communication Climate	5	.926
Group Dynamics	Altruism	3	.700
	Cohesiveness	8	.901
	Universality	5	.787

CONCLUSIONS

This study addressed the need for more empirical research examining the interrelationships among leadership styles, communication satisfaction, and group dynamics. To this end, the research model was grounded in established instruments by Avolio and Bass (2004), Downs and Hazen (1977), and Phan et al. (2004). Exploratory Factor Analysis and Cronbach's Alpha were employed to assess construct validity and reliability. Data were collected from employees working in Greece's four- and five-star hotels.

The findings of this study confirmed the reliability and applicability of the Greek adaptations of the Multifactor Leadership Questionnaire (Avolio & Bass, 2004), Communication Satisfaction Questionnaire (Downs & Hazen, 1977), and Group Dynamics Inventory (Phan et al., 2004) within the Greek hospitality sector. However, item refinement was necessary. Specifically, Item 6 (*"Talks about his/her most important values and beliefs"*) of the Idealized Influence component of the MLQ was eliminated due to multicollinearity. Additionally, Item 3 (*"Fails to interfere*

until problems become serious") of the Management by Exception Passive subscale and Item 28 (*"Extent to which the grapevine is active in our organization"*) of the Horizontal Informal Communication subscale within the CSQ were excluded due to low communality. Lastly, items 13 and 14 (*"I learned that others have some of the same "bad" thoughts and feelings as I, "I learned that others had parents and backgrounds as unhappy or mixed up as I"*) of the Cohesiveness component in the GDI were removed due to multicollinearity issues.

This study identified significant gaps in the existing literature concerning the intricate relationships among leadership styles, communication satisfaction, and group dynamics. Previous research has established the influential role of leadership styles on various organizational outcomes, including communication and group cohesion. A comprehensive understanding of these interconnections is imperative for Human Resource Management to optimize organizational performance, potentially yielding substantial time and cost savings through effective strategic planning and implementation.

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APPENDIX

ITEMS
1. Provides me with assistance in exchange for my efforts.
2. Re-examines critical assumptions to question whether they are appropriate.
3. Fails to interfere until problems become serious.
4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards.
5. Avoids getting involved when important issues arise.
6. Talks about his/her most important values and beliefs.
7. Is absent when needed.
8. Seeks differing perspectives when solving problems
9. Talks optimistically about the future.
10. Instills pride in me for being associated with him/her.
11. Discusses in specific terms who is responsible for achieving performance targets.
12. Waits for things to go wrong before taking action.
13. Talks enthusiastically about what needs to be accomplished.
14. Specifies the importance of having a strong sense of purpose.
15. Spends time teaching and coaching.
16. Makes clear what one can expect to receive when performance goals are achieved.
17. Shows that he/she is a firm believer in "If It ain't broke, don't fix it".
18. Goes beyond self-interest for the good of the group.
19. Treats me as an individual rather than just a member of a group.
20. Follows the strategy that he/she takes action only with long-term problems.
21. Acts in ways that builds my respect.
22. Concentrates his/her full attention on dealing with mistakes, complaints, and failures.
23. Considers the moral and ethical consequences of decisions.
24. Keeps track of all mistakes.
25. Shows strength and confidence.
26. Articulates a compelling vision of the future.
27. Directs my attention toward failures to meet standards.
28. Avoids making decisions.
29. Considers me as having different needs, abilities, and aspirations from others.
30. Gets me to look at problems from many different angles.
31. Helps me to develop my strengths.
32. Suggests new ways of looking at how to complete assignments.
33. Delays responding to urgent questions.
34. Emphasizes the importance of having a collective sense of mission.
35. Expresses satisfaction when I meet expectations.
36. Expresses confidence that goals will be achieved.
37. Is effective in meeting my job-related needs.
38. Uses methods of leadership that are satisfying.
39. Gets me to do more than I expected to do.
40. Is effective in representing me to higher authority.
41. Works with me in a satisfactory way.
42. Heightens my desire to succeed.
43. Is effective in meeting organizational requirements.
44. Increases my willingness to try harder.
45. Leads a group that is effective.

Fig. 1: Leadership Styles MLQ-5x Questionnaire

ITEMS
4. Information about my progress in my job
5. Personnel news
6. Information about company policies and goals
7. Information about how my job compares with others
8. Information about how I am being judged
9. Recognition of my efforts
10. Information about departmental policies and goals
11. Information about the requirements of my job
12. Information about government action affecting my organization
13. Information about changes in our organization
14. Reports on how problems in my job are being handled
15. Information about benefits and pay
16. Information about our organization's financial standing
17. Information about accomplishments and/or failures of the organization
18. Extent to which my superiors know and understand the problems faced by subordinates
19. Extent to which the organization's communication motivates and stimulates an enthusiasm for meeting its goals
20. Extent to which my supervisor listens and pays attention to me
21. Extent to which the people in my organization have great ability as communicators
22. Extent to which my supervisor offers guidance for solving job related problems
23. Extent to which the organization's communication makes me identify with it or feel a vital part of it
24. Extent to which the organization's publications are interesting and helpful
25. Extent to which my supervisor trusts me
26. Extent to which I receive in time the information needed to do my job
27. Extent to which conflicts are handled appropriately through proper communication channels
28. Extent to which the grapevine is active in our organization
29. Extent to which my supervisor is open to ideas
30. Extent to which horizontal communication with other organizational members is accurate and free flowing
31. Extent to which communication practices are adaptable to emergencies
32. Extent to which my work group is compatible
33. Extent to which our meetings are well organized
34. Extent to which the amount of supervision given me is about right
35. Extent to which written directives and reports are clear and concise
36. Extent to which the attitudes toward communication in the organization are basically healthy
37. Extent to which informal communication is active and accurate
38. Extent to which the amount of communication in the organization is about right
42. Extent to which my subordinates are responsive to downward directive communication
43. Extent to which my subordinates anticipate my needs for information
44. Extent to which I do not have a communication overload
45. Extent to which my subordinates are receptive to evaluation, suggestions, and criticisms
46. Extent to which my subordinates feel responsible for initiating accurate upward communication

Fig. 2. Communication Satisfaction Questionnaire

ITEMS
1. I felt that helping others has given me more self-respect.
2. I felt like putting others' needs before my own needs.
3. I was forgetting myself and thinking of helping others.
4. I was giving part of myself to others.
5. I felt that I was helping others and having an important impact in their lives
6. I felt a sense of belongingness to the group and that the group accepted me.
7. I felt like keeping in touch with other people
8. I felt that after revealing embarrassing things about myself, I was still accepted by the group.
9. I have the feeling that I am no longer alone
10. I feel that I belong to a group of people who understand and accept me.
11. I learned that I am not the only one with my type of problem (i.e. "We're all in the same boat").
12. I am seeing that I was just as well off as other people.
13. I learned that others have some of the same "bad" thoughts and feelings as I.
14. I learned that others had parents and backgrounds as unhappy or mixed up as I.
15. I learned that I am not very different from other people and that the group gave me a "Welcome to the human race" feeling.
16. I recognized that life is at times unfair and unjust.
17. I recognized that ultimately there is no escape from some of life's pain and from death.
18. I recognized that no matter how close I get to other people, I must still face life alone.
19. I learned that by facing the basic issues of my life and death, I am more able to live my life more honestly and be less caught up in trivialities.
20. I learned that I must take ultimate responsibility for the way I live my life no matter how much guidance and support I get from others.

Fig. 3. Group Dynamics Inventory