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RESEARCH ARTICLE

The Impact of Dominant Personality Traits on Team Roles

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Abstract:

Background:

The Gulf region is notorious for importing Asian laborers for blue-collar work due to the cheap costs associated with it. With many languages and cultural barriers present, understanding the needs of these workers and their preferred methods of communication has proven to be a challenge. Their ways are often misinterpreted, both collectively and individually. From years of observation, these mishaps are primarily due to the lack of understanding and resources available to investigate such issues, especially in masses. Team effectiveness and efficiency depend on numerous factors, such as structure, competencies of team members, commitment, collaboration, support, benchmarks of perfection, and leadership qualities. It is the most important component; the individuals can benefit from an evaluation of how each of their unique characteristics can contribute to the whole. Thus, we investigate the personality type and see if it has an association with their ethnicity, as well as correlations to their individual team roles.

Objective:

The study aims to find relationships between ethnicity and personality types in order to enhance their value creation in the workplace. Also, if there are correlations between them and team roles, managers will be better equipped when making decisions regarding team building and cohesiveness.

Methods:

Each participant was given the Myers-Briggs Type Indicator (MBTI) personality type and Belbin team role type computer-based questionnaires. Based on the test results, the participants were divided on the basis of their ethnicity, having one personality among 16 personalities and the team-work role played. The ethnicity, personality type, and the team-work role played were measured in terms of frequency. The hypothesis was tested to determine the relationship among the variables of the study, and cross-tabulation was done among personality and team-work roles to determine the association between them.

Results:

The test results indicated a significant relationship between ethnicity and personality type, however, personality type and ethnicity do not impact the team role. From the outcome of the research conducted and the use of several types of statistical analysis, it can be concluded that there is a significant relationship between personality and ethnicity type. As observed, the findings are as follows: - Egyptians are primarily (42%) ISTPs and secondarily ENFJs (25%). - In Indians, the most frequent type is ISTJ, with an occurrence of 52%. - Lebanese are most frequently ESTPs (46%). - In Filipinos, the most frequent type is ENFP, with 31%. Although the test results indicated that there is a significant relationship between ethnicity and personality type, however, personality type and ethnicity do not impact the team role. Furthermore, it was observed that ENFP personality types were complete finishers, coordinators and monitor evaluators in a team. ESTP personality types were implementers, team-workers and specialists. ISTP played the role of plant, investigator, or specialist. ISTJ was observed to be shapers.

Conclusion:

The combined instruments will help break cross-cultural barriers and allow for a better understanding of ethnicity and stigmas, which may subconsciously exist, both projected by the individual and perceived by the receiver.

Keywords: Ethnic groups, MBTI, Belbin team role and ethnicity, Stigma, Cross-cultural barriers, Shapers.

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1. INTRODUCTION

With an ever-growing arena of competitive businesses, the

continuous struggle is required to increase the bottom-line.

Unfortunately, there are no rules or formulas for absolute

or guaranteed success, but there are plenty of ways to increase the odds that holds for both individuals and organizations alike. As the two go hand in hand, it is often the case that successful employees create successful companies. In order to become a successful employee, one must work on several dimensions of one's being and must also seek to have a system of encouragement and support from their workplace as well [1]. Proper management and training are essential for success in any workplace.

As companies strive to save costs in every department possible, they have realized that investing in their human resources and its process is just as important as investing in any other domain in their business [2]. Online questionnaires are not reliable data collection. Psychologists have long emphasized that determining one's personality traits using these questionnaires can help determine how well they do in a given task [3, 4]. Based on these recommendations, many personality-type questionnaires have been developed, some with little to no credibility [5 - 7]. Therefore, one must be careful upon making the decision of which one to use.

The great works of psychologist Geert Hofstede, and how he was able to identify cultural groups into clusters of 'types', were of great interest as in Kuwait's Food and Beverage Sector; there are many stereotypes and unexplained happenings when it comes to imported laborers [8, 9]. There are obvious qualities that were noticed over the years, but most remained simply stereotypes without much further explanation. Perhaps there was a scientific way of answering questions like why one type of ethnicity does better at a certain job or task than another. In this work, which aims to find a connection between ethnicity, personality type, and team roles, Hofstede's findings will be used as a starting point to explore and investigate any connections as used in other scientific works [10]. To build a well-balanced team, the diversity in team roles and skills has been seen as an important factor [11, 12], therefore, the present study examines the ethnicity factor and its influence on the team roles.

Furthermore, the need for flexibility and higher performance has increased with the continuously changing environment. The productivity level of an organisation is dependent upon the team performance and the role played by each member of the team [2]. Moreover, team performance had been seen as an effective methodology to deal with the challenges [13, 14]. Teams are the crucial element of the organization, which can ensure high-performance within an organization [15]. In current scenarios, team performance and work have gained widespread recognition to accomplish the organizational goals [16]. In effect, the need to recognize the efforts in the team has increased over the past few decades. Team effectiveness and efficiency depend on numerous factors that can range from structure, competencies of team members, commitment, collaboration, support, benchmarks of perfection, and leadership qualities [17 - 19].

In the present paper, the central focus is Belbin's theory of teamwork. It has been seen as one of the highly relevant theor

-ies which are scientifically tested and evaluated by researchers [20, 21].

The study will examine the correlations between ethnicity & personality types, as well as how they relate to team roles. It is significant as it will help determine the right person for the right job in terms of ethnicity, personality, and expected team role [22]. The correct choice of personality will ensure that the specific team role is performed by the person chosen. Furthermore, the study explores the relationship between personality traits and team roles associated with a specific ethnicity [23, 24]. The paper proposes that personality traits and ethnicity have an impact on bringing out the team role, and therefore suggests a new technique through which organisations can plan to construct an effective team [25]. The study will add to the existing literature pertaining to personality, team role and ethnicity from an unexplored angle in past literature.

2. LITERATURE REVIEW

2.1. Personality Tests

A personality test is generally a questionnaire, or a similarly consistent device, with the intended purpose of exposing the characteristics or psychological temperament of a person [26]. The 1920s saw the initial introduction of personality tests during the staff selection process for certain organizations, predominantly in the armed forces [27, 28]. From these initial efforts, a large number of alternatives have been created, such as the Myers Briggs Type Indicator (MBTI) and the MMPI, as well as those developed from the Five-Factor Model of personality, for example, the Revised NEO Personality Inventory [29, 30]. Table 1 indicates the summarised form of MBTI elements.

Several personality surveys are now available either for free or for purchase on the internet.

- The Myers-Briggs Type Indicator (MBTI) is a psychometric style of a questionnaire that can be used to understand the psychological predilections associated with the way individuals view the world and undertake the decision-making process [32, 33]. Based on Carl Jung's *Psychological Types*, created during World War II by Isabel Myers and Katherine Briggs, this 16-type indicator test makes use of a number of factors, including Extroversion-Introversion, Sensing-Intuition, Thinking-Feeling, and Judging-Perceiving. By presenting a range of opposing natures, it leads to a personality type [34 - 36].

The Myer-Briggs test draws on the typological approach to personality taken by Carl Jung and Isabel Briggs Myers. It consists of a 64 forced-answer, 5-degree of Linkert style yes/no questions [37]. This type of subjective approach enables psychology researchers to examine a variety of psychological characteristics and to group them into different cultural clusters. When an individual has completed the survey, the researcher can: 1) determine the individual's four-letter formula as per Carl Jung's and Isabel Briggs Myers' typology, including preferences and personality type description [38, 39]; 2) determine the careers the individual's personality type is most suited to, including suggestions of appropriate education

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facilities and degrees/training; 3) identify which well-known people also have the individual’s personality type; 4) input the assessment results into the Jung Marriage Test and related demo in order to determine the individual’s compatibility with a romantic partner [40, 41].

In direct contrast to standardization and other similar tests that measure intelligence traits, the indicator is concerned with categorizing the preferred types of respondents. The Myers-Briggs Theory argues that personality traits and types are innate. Yet, traits can be enhanced (in the same way as skills), and personality types naturally evolve as time passes, assuming that the individual is operating within a positive environment [42, 43]. The indicator tries to determine the way in which this evolution and development take place in individuals. Full personality descriptions are based on this information, evaluated in collaboration with interviews with others who appear to have similar preferences [44, 45]. Thus, the indicator can be understood as an arrow that points towards the appropriate description [46, 47]

- The GET2 test is a 54 question with two forced, agree/disagree answers. The General Measure of Enterprising Tendency test, known as the GET2, was developed at Durham University Business School in 1988 [48, 49].

In this paper, we will review the development of personality testing by exploring some of the pioneers in the field as well as how different questionnaires were established. We will then discuss the uses of some of the more popular questionnaires, which will lead to a discussion on which one was chosen for the research part of this project. Then, the questionnaire chosen will be used to assess the personality types of the volunteered subjects, which will ultimately be tested within each ethnicity for correlations.

2.2. Belbin’s Team Role Test

The Belbin team role has been constructed by Belbin and the colleagues of the industrial units. The theory was constructed after the 9 years of research conducted mainly among the staff college [50, 51]. The team effectiveness was measured by the composition and manipulation of the team characteristics and observed how different personalities and personal characteristics affected the team’s success [52]. The team’s success is not limited by the hierarchical and

professional roles; instead, the interpersonal also have an impact [53, 54]. The participants in the research were asked to fill the Cattell’s 16 PF, personal preference questionnaires and Watson-Glaser constructed appraisal forms. The results were categorized into eight major roles: shaper, coordinator, implementer, resource investigator, Plant team worker, Monitor-evaluator, and completer-finisher. The specialist role was added later in the team roles. The theory indicated that these roles are complementary, and each person has at least 2-3 roles. An ideal team would have all the nine roles of a team. The theory gained popularity after his book, which was published in 1981 [12].

Cohen *et al.* [43] had utilised MBTI to measure the relationship between the team role played by a manager and its effect on the success of a particular project. McPeck and Breiner [55] analysis of the MBTI instrument contemplated that MBTI should be accomplished scholars because of the complex understanding. A study by Harrington and Loffredo [56] used a combination of MBTI and questionnaire to analyse students’ preference amongst online and face-to-face interaction. Another study was conducted which utilised MBTI and measured the relationship between the team role, grades and preferences [57]. Tzeng *et al.* [58] had investigated the validity of the MBTI instrument and the result implied that empirical evidence projects the validity instilled in the MBTI.

Table 2 provides a short description of the roles proposed by Belbin [52].

2.3. Associations Between Values

Studies have led to certain countries being linked to each other by evaluating their value scores along with other country-specific distinctions [59]. These factors include geographical location, common language, historical connections, religious/belief-based similarities, philosophical comparability, and similar political systems; all the elements that make up a country’s national culture and identity [60]. For instance, income impartiality and counseling political behavior are linked to low power distance, while high power distance is associated with an imbalance over income, in addition to bribery and exploitation within a country’s political system. Individualism is positively associated with progress and prosperity, for example, as a country increases its wealth, it develops a more individualistic culture [61, 62].

Table 1. –MBTI Summary.

Title	Description
Extroverts (E)	Are outgoing, action-oriented, expressive, social and impulsive
Introverts (I)	Do not socialize, present fully-furnished ideas, private, and quiet.
Sensors (S)	Heavily rely on facts, experience, reality, and proven results. Critical and careful in their approach.
Intuitives (N)	Imagination and theories help in forecasting the future. Abstract things are perceived by them among the relations, present conditions, possibilities, and connection in events.
Thinkers (T)	The decision making is based on the logical process. Logical reasoning and examining the results describe the actions.
Feelers (F)	The conclusion is achieved with the help of personal values and subjective thinking. Have empathy, warmth, and compassion towards people.
Judgers (J)	Inflexible, drives towards end goals, work as per the schedule, and plan only. Prioritization of the task is crucial.
Perceivers (P)	Welcomes new opportunities and possibilities by being flexible, open, unconstrained, and divergent.

Source: [31]

Table 2. Belbin team role theory.

Title	Characteristics
Shaper	Filled with nervous energy, aggressive, motivated to achieve higher goals, aims to win, extrovert, highly strung
Implementer	Conservative, predictable, dutiful
Complete Finisher	Painstaking, conscientious, orderly, consistent, anxious
Co-ordinator	Clam, controlled, self-confident, warm, tolerant, enthusiastic
Teamwork	Socially oriented, sensitive, rather mild, perceptive, trusting, diplomatic
Resource-Investigators	Extroverted, enthusiastic, communicative, warm, curious
Plant	Innovative, serious-minded, independent, introverted, individualistic, unorthodox
Monitor Evaluator	Sober, prudent, unemotional, intelligent, detached
Specialist	Single-minded, dedicated, self-starting. Shares the skills and knowledge wherever required.

Source: [52]

In 2003, the Sigma Two Group illustrated a further association between the cultural elements of a country and its principal religion [63, 64]. In general, high levels of uncertainty avoidance, fairly high power distance, average levels of masculinity, and rather low levels of individualism are seen in largely Catholic countries. In contrast, Atheist countries display low uncertainty avoidance, extremely high levels of power distance, average masculinity and low individualism. Reverse associations can be seen between particular forms of innovation within manufacturing companies and the number of large organizations in the country, in addition to the use of a certain type of strategy relating to manufacturing [27]. There is a positive correlation between the power distance, from a country's cultural point of view, and the ratio of organizations who approach innovation from a process only stance over those who employ a wider range of innovative activities (determinant of correlation: 28%) [64]. In summary, countries with a high power distance are more likely to host manufacturing organizations that employ a process-based approach to innovation.

By attributing a numeric value to cultural features, it becomes possible to evaluate various areas and develop a view of the differences that exist between regions as well as individual countries [65]. This can be seen in the cultural model of the Mediterranean countries, which shows a high level of tolerance towards unfairness, while many decisions are made based on the avoidance of uncertainty [66]. In terms of individualism and masculinity, Mediterranean countries generally display moderate levels; the same can be said for future orientation. Indulgence, however, scores much higher. "Culture is more often a source of conflict than of synergy. Cultural differences are a nuisance at best and often a disaster" [67].

Regardless of evidence to the contrary, there is a general tendency towards supposing that people are all the same at their core [68, 69]. As a consequence of not having a full understanding of a particular country's culture, the differences they display are often underestimated. This can result in false impressions and misconstrued ideas developing between those from different countries [70].

With the abundance of information technology in today's society, the convergence phenomena, or global village culture, were predicted to lead to a lessening of cultural differences, however, this does not appear to be the case. For this reason, so

as to remain considerate within cross-cultural situations, it is important to be sensitive to any differences [71].

Geert Hofstede's model allows an insight into these distinctions. It has the ability to provide an overall impression and allow for the development of a general appreciation for different cultures, what they are likely to deliver and how to interact with those from other countries [72, 73].

Communication is a vital component within the world of business. For those who undertake business transactions on a global scale, working together with people from a variety of countries, Hofstede's model provides an excellent understanding of the different cultures at play [74]. In order for successful cross-cultural communication to take place, it is necessary to have a good grasp of the cultural influences since what is the norm in one country may be considered distasteful in another. This applies to communication at all levels: verbal (the words and language used); non-verbal (body language and gestures); and customs (clothing, gift-giving, dining, *etc.*).

3. AIMS & OBJECTIVES

This study sought to investigate whether there was a relationship between the demographic variables and team role. Three demographic variables were considered, and these were gender, ethnicity, as well as personality. All the variables were measured on the categorical scale, and in this respect, according to [75], the optimal statistical analysis was the Chi-square test. The study aims at exploring the association among ethnicity, personality traits, and the team-role. If the association exists, then the study examines the significance of the association discovered and the techniques through which these associations can be utilized by organizations. The following objectives have been addressed:

- To find correlations between people of similar ethnicities & their personality types.
- To analyze that if the personality traits within the same ethnic group are gender-biased
- To assess the relationship between personality type & team role

3.1. Research Hypothesis

The first hypothesis sought to establish whether personality type was dependent on ethnicity. The hypotheses that were

tested were:

H: There is no significant relationship between ethnicity and personality type.

H_A: There is a significant relationship between ethnicity and personality type

The second hypothesis sought to establish whether gender had an affect on personality type. The hypotheses that were tested were:

H₀: The distribution of personality types is the same between genders

H_A: The distribution of personality types is not the same between genders.

The third hypothesis sought to establish whether personality was uniform. The hypotheses that were tested were:

H₀: The distribution of personality types is uniform in an ethnicity.

H_A: The distribution of personality types is not uniform in an ethnicity.

The fourth hypothesis sought to establish whether the team role was dependent on personality. The hypotheses that were tested were:

H_a: Action-oriented role is dependent on personality

H_b: People-oriented role is dependent on personality

H_c: Thinking-oriented role is dependent on personality

The corresponding analyses were carried out, and the results are presented in the sections below.

4. RESEARCH METHODOLOGY

4.1. Overview

The present study is entirely quantitative in nature as per the topic selected for the investigation. The study has an exploratory research design as the relationships amongst the personality, team role and ethnicity, are explored. Furthermore, the deductive reasoning approach was exploited as the hypothesis testing is done after the collection of data to achieve research objectives. A cross-sectional study was undertaken, and primary data was gathered from the food and beverage companies of Kuwait. However, before conducting the data, pilot testing was done to see which test is effective among the MBIT and GET2 [76]. The selection of the test was made on the parameters of logically easy to administer, time is taken, test availability online and cost attached. The researcher felt the need for a pilot test as it was aimed to collect data from more than a hundred participants at a lower cost. "Time" component was given importance as the test had to be conducted within the working hours. English was the chosen language and jargon was removed to make the questionnaire as effective as possible. The pilot study of MBTI and GET 2 lasted a couple of days and was administered to 10 friends and family members who volunteered for the job. They gave light to some issues which would not have been brought to light otherwise.

Overall, the GET2 test had much more negative feedback

from the test takers than the Jung/Briggs-Myers test, which further indicates the validity of MBTI. As a matter of fact, more people than initially planned were interested in the latter and asked to take the test as they liked the idea of the 4-letter outcome of personality type and wanted to see what their results would be. Therefore, it was decided that the Jung/Myers-Briggs questionnaire would be used for the experiment part of this paper.

For analyzing the team role, Belbin Self-perception inventory is adopted, which is a web-based survey. No pilot testing was done, as it is free of cost and does not consume a lot of time. Thus, the study had adopted two questionnaires that had utilized a nominal scale to measure the personality, ethnicity and team role of the participants. The ethnicity factor was included in the MBTI questionnaire.

Statistical tests were used to find the association between the MBTI personality, Belbin team roles and ethnicity. Chi-Square analysis was conducted with the help of SPSS to test the hypothesis of the study. The rejection and acceptance of hypotheses were based on the Chi-Square analysis results. Furthermore, to identify the similarities amongst the different personality types and team roles, cross-tabulation was conducted among the data gathered from the employees of F&B companies of Kuwait.

4.2. Sample and Sampling Technique

Before the experiment, friends in the industry were contacted in order to get as many participants as possible. From a group of eight companies contacted in the F&B world, only five of them decided to participate. Each of the companies would provide a list of available employees and their nationalities prior to an arranged meeting for them to take the test. A sample of 119 has been collected from the 5 companies of F&B.

*Some participants were given a secret number for confidentiality reasons.

The questionnaire administered was found online on the site [77], which allowed me to have numerous people take the test and have an automatic score for each participant.

4.3. Tools Adopted for the Study

A phone call for participation was sent, followed by a formal letter to several local Food & Beverage outlets.

The employees were given written notice that they would be participating in a group study, which requires them to fill out an online questionnaire. They were promised confidentiality in that no one other than myself, and my assistant will know their personal results. They would be able to see their results at the end of the session and can have them emailed to them if they so indicate on the consent form. They must sign the form as a means of consenting to participate in the experiment and have the right to refuse participation.

By obtaining permission from various food and beverage outlets, the researcher was able to conduct one-on-one computer tests using the same questionnaire for 119 randomly selected employees in five different companies. Each company would supply randomly sampled individuals for the test. They

varied in backgrounds, gender, age and education level.

All of the subjects were given as much time as they needed to fill the questionnaire; most were finished within ten minutes. The researcher was sitting on the opposite side of the table while each subject took the test. One laptop with an internet connection was used to administer all the tests.

All the subjects were given the test in English. All of the subjects were comfortable talking and understanding the English language enough to be able to take the test. Prior to beginning the test, each participant was given a brief explanation of what to expect, the time it may take to finish the questionnaire, as well as that if there was anything they did not understand (*i.e.*, a word) they are welcome to ask for the meaning.

5. RESULTS

5.1. Personality Types within Ethnic Groups

To begin with, the first hypothesis is tested:

H_{01} : There is no significant relationship between ethnicity and personality type.

H_{a1} : There is a significant relationship between ethnicity and personality type

The differences are best shown in contingency Tables 3-6 below, which show the personality types observed in each ethnicity:

Table 3. Distribution of personality types within ethnicity (Egyptian).

Valid	Frequency	Percent	Valid Percent	Cumulative Percentage
ENFJ	3	25%	25%	25%
ENTP	2	17%	17%	42%
ISTJ	2	17%	17%	58%
ISTP	5	42%	42%	100%
TOTAL	12	100%	100%	

Table 4. Distribution of personality types within ethnicity (Indians).

Valid	Frequency	Percent	Valid Percent	Cumulative Percentage
ENFJ	1	5%	5%	5%
ENFP	4	19%	19%	24%
ESTP	1	5%	5%	29%
INTP	1	5%	5%	33%
ISTJ	11	52%	52%	86%
ISTP	3	14%	14%	100%
TOTAL	21	100%	100%	

Table 5. Distribution of personality types within ethnicity (Lebanese).

Valid	Frequency	Percent	Valid Percent	Cumulative Percentage
ENFP	4	14%	14%	14%
ENTJ	3	11%	11%	25%
ENTP	1	4%	4%	29%
ESTJ	2	7%	7%	36%
ESTP	13	46%	46%	82%
INTP	2	7%	7%	89%
ISTJ	2	7%	7%	96%
ESTP	1	4%	4%	100%
TOTAL	28	100%	100%	

Table 6. Distribution of personality types within ethnicity (Filipino).

Valid	Frequency	Percent	Valid Percent	Cumulative Percentage
ENFJ	1	2%	2%	2%
ENFP	18	31%	31%	33%
ENTP	5	9%	9%	41%
ESTJ	7	12%	12%	53%

(Table 6) contd.....

ESTP	7	12%	12%	66%
INTJ	2	3%	3%	69%
INTP	5	9%	9%	78%
ISTJ	2	3%	3%	81%
ISTP	11	19%	19%	100%
TOTAL	58	100%	100%	

Table 7. Comparison of personality types between genders (All Ethnicities).

Type	Female	Male	TOTAL
ENFP	9	17	26
ENFJ	0	5	5
ENTJ	0	3	3
ENTP	2	6	8
ESTJ	4	5	9
ESTP	6	15	21
INTJ	2	0	2
INTP	2	6	8
ISTJ	7	10	17
ISTP	6	14	20
TOTAL	38	81	119

5.2. Differences Between Genders

The next analysis involved the comparison between genders in the whole sample, regardless of ethnicity. Table 7 shows some differences (e.g., in ENFJ where five out of five are men; similarly in ENTJ with three out of three being men and in INTJ with two out of two women), but these are based on small counts.

For the second hypothesis, to see if there is an association of gender with personality type, we conduct a chi-square test to test the following:

H02: The distribution of personality types is the same between genders

HA2: The distribution of personality types is not the same between genders.

The results are shown in Table 8 below. There is no significant effect of gender on the personality type ($X^2(9) = 9.9$,

$p = .36$), and we cannot reject the null hypothesis. The small differences mentioned indeed did not play a role.

5.3. Differences Between Genders Within Ethnicities.

Third, the procedure was repeated for the comparison between genders, but this time within each nationality (Egyptians, Indians, Lebanese, Filipinos) separately, that is, four hypotheses:

H03: The distribution of personality types is uniform in an ethnicity.

HA3: The distribution of personality types is not uniform in an ethnicity.

The results (Table 9) do not show any significant association in any ethnicity. We must conclude that there is no significant effect of gender on the personality type in either ethnicity, and we cannot reject the corresponding four null hypotheses.

Table 8. Testing for association between personality type and gender.

	Chi-Square Tests		
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.916 a	9	0.357
Likelihood Ratio	12.576	9	0.183
N of Valid Cases	119	-	-

a. 9 Cells (45,0%) have expected count less than 5. The minimum expected count is .64.

Table 9. Testing for association between personality type and gender within ethnicities.

	Chi-Square Tests (a)		
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.800(b)	3	0.187

(Table 9) contd.....

Likelihood Ratio	5.268	3	0.153
Fisher's Exact Test	4.406	-	-
N of Valid Cases	12	-	-

a. rEthnicity = Egyptian

b. 8 Cells (100,0%) have expected count less than 5.

The minimum expected count is .33.

	Chi-Square Tests (a)		
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.352 (b)	5	0.799
Likelihood Ratio	3.258	5	0.66
Fisher's Exact Test	2.579	-	-
N of Valid Cases	21	-	-

a. rEthnicity = Indian

b. 11 Cells (91.7%) have expected count less than 5.

The minimum expected count is .33.

	Chi-Square Tests (a)		
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.887 (b)	7	0.553
Likelihood Ratio	8.085	7	0.325
Fisher's Exact Test	5.741	-	-
N of Valid Cases	28	-	-

a. rEthnicity = Lebanese

b. 15 Cells (93.8%) have expected count less than 5.

The minimum expected count is .36.

	Chi-Square Tests (a)		
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.531 (b)	8	0.481
Likelihood Ratio	8.993	8	0.343
Fisher's Exact Test	6.562	-	-
N of Valid Cases	58	-	-

a. rEthnicity =Filipino

b. 15 Cells (83.3%) have expected count less than 5.

The minimum expected count is .33.

5.4. Personality and Team Role

The fourth hypothesis sought to establish whether the team role was dependent on personality. The hypotheses that were tested were:

H_{a4}: Action-oriented role is dependent on personality

H_{b4}: People-oriented role is dependent on personality

H_{c4}: Thinking-oriented role is dependent on personality

Table 10 below presents the cross-tabulation for an action-oriented role and personality.

To test whether the differences were significant, the Chi-square test is presented below in Table 11.

Table 10. Cross-tabulation - action-oriented role and personality.

		Personality										Total
		ENFJ	ENFP	ENTJ	ENTP	ESTJ	ESTP	INTJ	INTP	ISTJ	ISTP	
Action-oriented role	Low	3	14	2	5	4	11	2	3	8	14	66
	High	2	12	1	3	5	10	0	5	9	6	53
Total		5	26	3	8	9	21	2	8	17	20	119

Table 11. Chi-square tests - action-oriented role and personality.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.753 ^a	9	.764

(Table 11) contd

Likelihood Ratio	6.565	9	.682
Linear-by-Linear Association	.082	1	.775
N of Valid Cases	119	-	-

a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is .89.

Table 12. Cross-tabulation - people-oriented role and personality.

		Personality										Total
		ENFJ	ENFP	ENTJ	ENTP	ESTJ	ESTP	INTJ	INTP	ISTJ	ISTP	
People-oriented role	Low	2	14	3	4	5	9	2	4	11	12	66
	High	3	12	0	4	4	12	0	4	6	8	53
Total		5	26	3	8	9	21	2	8	17	20	119

Table 13. Chi-square tests - people-oriented role and personality.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.825 ^a	9	.655
Likelihood Ratio	8.703	9	.465
Linear-by-Linear Association	.417	1	.518
N of Valid Cases	119	-	-

a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is .89.

The results above show that $\chi^2(9) = 5.753$; $p = 0.764 > 0.05$. Since the p-value was greater than 0.05, the null hypothesis was not rejected, and the researcher confirmed that an action-oriented role was not dependent on personality.

The cross-tabulation for people-oriented role and personality is presented in Table 12 below.

The Chi-square test results for the above comparison are presented in Table 13 below.

From the above outcome, $\chi^2(9) = 6.825$; $p = 0.655 > 0.05$. The p-value was greater than 0.05, and in this regard, the null hypothesis was not rejected. In this regard, it can be confirmed that a people-oriented role was not dependent on personality.

The cross-tabulation for thinking-oriented role and personality is presented in Table 14.

Table 15 below presents the Chi-square test results for the above comparison.

Table 14. Cross-tabulation - thinking-oriented role and personality.

		Personality										Total
		ENFJ	ENFP	ENTJ	ENTP	ESTJ	ESTP	INTJ	INTP	ISTJ	ISTP	
Thinking-oriented role	Low	3	15	3	3	5	11	0	5	7	18	70
	High	2	11	0	5	4	10	2	3	10	2	49
Total		5	26	3	8	9	21	2	8	17	20	119

Table 15. Chi-square tests - thinking-oriented role and personality.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.131 ^a	9	.347
Likelihood Ratio	20.450	9	.015

The above results show that $\chi^2(9) = 7.131$; $p = 0.347 > 0.05$ and from these findings, the p-value was greater than 0.05. In this regard, the null hypothesis was not rejected, meaning that there was no statistically significant association between thinking-oriented role and ethnicity.

5.5. Conclusion of Findings

The first question actually consisted of 4 questions, one for each ethnicity. For each one, we tested the null hypothesis (H0) that the distribution of personality types is uniform in an ethnicity. All 4 hypotheses were rejected:

- o Egyptians are primarily (42%) ISTPs and secondarily ENFJs(25%).
- o In Indians, the most frequent type is the ISTJ, with an occurrence of 52%.
- o Lebanese are most frequently ESTPs (46%).
- o In Filipinos, the most frequent type is the ENFP, with 31%.

(Table 15) contd

Linear-by-Linear Association	.968	1	.325
N of Valid Cases	119	-	-

a. 11 cells (55.0%) have expected count less than 5. The minimum expected count is .82.

The second question was if there are differences between the genders. We tested the null hypothesis (H0) that the proportions of the personality types are the same among genders. This hypothesis could not be rejected as the differences observed were too small.

The third question was analogous to the second one and was actually 4 questions, one for each ethnicity. For each one, we tested the null hypothesis (H0) that the distribution of personality types is uniform in an ethnicity. All 4 hypotheses were rejected because the differences between men and women in each ethnicity were quite small.

The fourth hypothesis sought to establish whether the team role was dependent on personality. The hypotheses that were tested were by team role type. In this regard, all three null hypotheses were not rejected, meaning that there was no statistically significant association between team roles and ethnicity.

6. LIMITATIONS OF THE STUDY

6.1. One Test Type

When it comes to having an overall idea of one’s personality traits, it is wise to collect information using three different testing methods – subjective, objective, and projective. In this case, the test used was only an objective one. It would be wise to continue this study with complementary methods like subjective and projective [46.72].

6.2. Administration

The main drawback was that I could not simply create an online survey and send it out to countless individuals. I was restricted in the fact that the website, which offered the questionnaire free of charge, was not simple to navigate and needed to be explained. As well, the score is provided immediately after the questionnaire is completed and cannot be shared with anyone directly (or have the score sent to the administrator). It was not easy to explain how to copy and paste the score and have it sent to me. Another option was to have the participant simply send me an email with their score. However, this would complicate matters even more as it would bring an unneeded element of inaccuracy and dishonesty.

Furthermore, the randomly selected people from the food and beverage companies could not supply me with a list of emails where I can simply send the link of the questionnaire with a brief explanation on how to go about administering it to one’s self.

To minimize the possibility of inaccuracies and misunderstandings, I decided to be present at each and every one of those tests. I administered them myself and recorded the results of each of the participants.

6.3. Language barriers

All test takers were non-native English speakers with

varying degrees of understanding. This could have caused some confusion towards understanding the questions and could have, therefore faulted some of the results obtained.

6.4. Time

Time was also an issue as all the questionnaires were administered during working hours, which could have caused some to hurry up and try to finish the questionnaire as soon as possible.

6.5. Pressure

Though all test takers’ names were promised to remain anonymous, the employees could have felt some pressure to do well in the test, perhaps thinking that their managers will see how well they did.

6.6. Outdated Questions

The MBTI questionnaire administered has been established between the 1940s and 1960s [65] and similarly, Belbin’s team role model was developed in 1981. It could very well be outdated in terms of research and data collected back then to develop the test.

6.7. Fatigue

Again, due to the fact that the questionnaires were conducted during working hours, the employees could have been tired and wanted to get the test over and done with as quickly as possible. In addition, the fatigue could have led them to not really pay attention or ask questions about the meaning of words they did not understand, which could have further complicated the individual results.

7. DISCUSSION

7.1. Overview

The present study investigated the relationships between ethnicity, personality type and team-role by utilizing MBTI and Belbin tests. The results were gathered from 119 respondents who belonged to different ethnicities, and statistical tests were conducted to test several hypotheses. In this paper, we had a vague idea that inspired us to explore ethnicities and personality types. Geert Hofstede confirms that there are, in fact, distinguishable similarities and differences between ethnicities when it comes to personality traits. Therefore, we proceeded to collect a literature review regarding the subject. From the outcome of the research conducted and the use of several types of statistical analysis, it can be concluded that there is a significant relationship between personality and ethnicity type. As observed, the findings are as follows:

- Egyptians are primarily (42%) ISTPs and secondarily ENFJs (25%).
- In Indians, the most frequent type is the ISTJ, with an occurrence of 52%.

- Lebanese are most frequently ESTPs (46%).
- In Filipinos, the most frequent type is the ENFP, with 31%.

Although the test results indicated that there is a significant relationship between the ethnicity and personality type, however, personality type does not impact the team role. Furthermore, it was observed that ENFP personality types were complete finishers, coordinators and monitor evaluators in a team. ESTP personality types were implementers, team-workers and specialists. ISTP played the role of plant, investigator, or specialist. ISTJ was observed to be shapers.

7.2. Scientific Significance

This research adds to the wealth of applied psychology scientific research in that it gives a clear indication that there are, in fact, significant relationships and dominant characteristics amongst clusters of cultures. It is important to note these changes and take them into consideration when dealing with a multicultural environment. Since organizations are constantly looking for ways to find the right person for the right job, the insight gained from this research highlights the fact that ethnicities and personality types may be taken into consideration for the mentioned task. Research on the matter is rare and should be considered in future papers.

CONCLUSION

The sample size of the study was small, so to add more accuracy to the findings, future researchers can conduct a study on larger sample size. Also, the questionnaires utilised in this study were approximately 60 years old, so future researchers can modify the questionnaire and undertake the study. The different sectors can be explored, as the study was limited to the food and beverage industry of Kuwait. With this, the research findings can be validated. Lastly, the factors tested against one another for correlations were a few, like ethnicity, personality traits and team role. It would be interesting to suggest further analyses with more controlling factors, for example, socio-economic status of parents, educational levels, years of professional experience, *etc.*

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The local Ethics board, which is part of the ministry of health, was consulted prior to the study and they decided that this research did not need an ethics approval as nothing was physically administered.

HUMAN AND ANIMAL RIGHTS

No Animals were used in this research. All human research procedures followed were in accordance with the ethical standards of the committee responsible for human experimentation (institutional and national), and with the Helsinki Declaration of 1975, as revised in 2013.

CONSENT FOR PUBLICATION

All patients participated on a voluntary basis and gave their informed consent.

AVAILABILITY OF DATA AND MATERIALS

The authors confirm that the data supporting the findings of this study are available within the article.

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None.

CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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Declared none.

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