



Cultural codes and conflict resolution tendencies of shipboard and shore-based professionals in the maritime sector

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ABSTRACT

In the maritime industry, the importance of shipboard and shore-based (office) personnel working in harmony to ensure safety and success of operations is important. The objective of this study is to examine the cultural codes of both groups, their tendency to resolve organizational conflicts and the relationship between these two variables and demographic factors. The analyses were performed based on the data collected from 143 Turkish maritime professionals through the Hofstede Cultural Dimensions Scale and Rahim Organizational Conflict Inventory (ROCI-II). The results show that the cultural profiles of the participants are described by low power distance, high uncertainty avoidance and high long-term orientation. The two most common tendencies in conflict resolution are the styles of “integrating” and “compromising”, while the least preferred style is “avoiding”. Furthermore, the shipboard personnel scored higher on the power distance and masculinity dimensions than the office-based personnel, but no significant difference between the two groups was found in the styles of organizational conflict resolution. The findings suggest that seafarers are beginning to challenge their leaders (low power distance) while adhering to rules (high uncertainty avoidance), and it is likely that sectoral developments such as the International Safety Management (ISM) and Bridge Resource Management (BRM) have played a role in this shift.

1. Introduction.

As with other professions, the maritime profession emerged and developed through an effort to align institutional patterns with human needs. Considering that society is constantly changing and needs are increasing, it is reasonable to anticipate that this alignment effort will continue. During these processes, certain inconsistencies and tensions among people may arise. As a result, specific difficulties, frictions, and conflicts may occur; members of this profession may be exposed to problems they

did not create, which then become personal challenges and contradictions (Elias, 1950).

Considering that a significant proportion (78.8%) of accidents in the maritime sector are attributed to human error (EMSA, 2025), it is clear that professional and environmental risk factors such as seafarers’ sleep quality, working hours and watches, the length of voyages, work demands, work-related stress, sleep disorders and time zone changes (MacLachlan et al., 2017) need to be regulated or reduced. In this high-pressure environment, combined with the seafarers’ struggle against nature, there is a high probability that this unique group will experience conflicts internally or with external groups.

Although there are numerous studies on conflict resolution tendencies, the most prominent and widely accepted framework is the organizational conflict resolution strategies developed by Rahim & Bonoma (1979). Based on the work of Blake & Mouton (1964), this framework defines each strategy as a function

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of an individual's degree of concern for self and others. An individual's conflict resolution strategy may vary depending on whether the target of the conflict is personally or group-oriented (Rahim, 1992).

In terms of culture, Hofstede's classification is remarkable because of its pioneering role of identifying cultural values and its ongoing acceptance. Within this framework culture is defined as the "software of the mind", using the notions of values and culture in its formulation (Hofstede, 1980).

With the growth of "flags of convenience", shipowners move the registration of their vessels to another flag for specific benefits. It is increasingly common to see crews from diverse cultural backgrounds working together (Lu et al., 2012). It has been observed that seafarers from different nations have varying preferences regarding compliance, cooperation, and the acceptance of hierarchy, based on their cultural values (Krakus and Cecilie, 2022).

This study aims to determine the cultural codes of maritime employees (shipboard and shore-based), their methods of resolving organizational conflicts, and the relationships between these factors (including demographic characteristics).

2. Literature Review, Theoretical Framework, and Research Hypotheses.

Notable studies related to maritime culture include research on leaders in the maritime sector (Atik, 2013; Krakus & Cecilie, 2022), the impact on organizational commitment (Yıldırım et al., 2021), safety and employee performance (Mearns & Yule, 2009; Başkol, 2021), job satisfaction and intention to stay at work (Senbursa, 2022), the effects on vessel detentions (Bao & Yip, 2010), employee motivation (Kesiktaş & Ayan, 2017), the effects on human failures in container shipping (Lu et al., 2012), how role conflict, ambiguity and overload mediate these effects in relation to cultural intelligence (Kubicek et al., 2019), criticisms regarding the outcomes of collective programming applied to cross-cultural crews (Knudsen & Froholdt, 2009), the relationship between work, hierarchy, occupational culture and multinational crews on ships (Sampson, 2021), and maritime culture from a sociological perspective (Dekker, 2018).

The existing literature on conflict resolution reveals a limited number of studies focusing on the maritime sector and seafarers; these include studies examining the conflict management styles of seafarers (Garcia et al., 2019; Ertürk, 2020b; Jamora et al., 2020; Dedaş, 2024) and a study investigating the conflicts between ships and Vessel Traffic Services (VTS) (Arslan, 2017).

Despite some studies addressing cultural codes and conflict issues together (Moreno, 2023) and others evaluating seafarers and shore-based personnel jointly (Karadağ, 2019; Sampson, 2016; May, 2023), the current literature contains only a single study (Siarapis, 2017) that links these two contexts, conducted at a yacht company.

The impact of cultural factors on accidents is well - documented. A significant example is the research linking the Korean Air Flight 801 crash to national culture, specifically high

power distance (Gladwell, 2008). Cultural characteristics can also lead to certain adverse outcomes in the maritime sector. For instance, in a cultural environment where leaders' decisions cannot be questioned due to the strict hierarchy (high power distance), as observed among sailors from Pakistan, Malaysia, Indonesia, and Myanmar, accidents occur, as in the case of the ship "Bunga Teratai Satu," which struck the Great Barrier Reef in Australia without changing course (Grech et al., 2019).

Seafarers are exposed to constant environmental stressors and experience sleep and fatigue issues (Hystad & Eid, 2016). High work demands and unpredictable hours contribute to mental health issues, sleep problems, injuries, and near-miss incidents (Andrei et al., 2018). Furthermore, high levels of responsibility and administrative duties, often paired with perceived colleague incompetence, create significant mental stress (Jensen & Oldenburg, 2020). Low job satisfaction and high burnout lead to lower overall well-being (Tavacıoğlu et al., 2019).

Conflict is to be expected between multicultural crews in such an environment. The main determinants of these conflicts are cultural characteristics, work conditions, personal differences, crew incompetence, management styles, factors related to work stress, and some competence standards (Ertürk, 2020a; Inegol et al., 2025; Garcia et al., 2019).

This study aims to contribute to the essential maritime industry in the world and human-centered maritime research to reduce accidents.

Research hypotheses: In light of the aforementioned literature and the critical significance of the subject matter, the following primary hypotheses have been formulated to identify the cultural codes and conflict tendencies of seafarers, and to examine the relationships between them:

H1: There is a significant relationship between the cultural dimensions of seafarers and their preferred organizational conflict resolution styles.

H2: There is a significant difference in maritime professionals' cultural dimensions and conflict resolution styles based on demographic factors (such as age, gender, marital status, and professional experience).

H3: There is a significant difference in maritime professionals' cultural dimensions and conflict resolution styles depending on their work environment (Shipboard or Office-based Personnel).

3. Method.

3.1. Research Design and Sample.

In this study, a correlational survey model, one of the quantitative research designs, was utilized to identify the relationships between cultural dimensions and organizational conflict resolution styles. The population of this study consisted of Turkish seafarers holding at least officer positions onboard ships and office-based personnel, such as Designated Person Ashore (DPA), superintendents, managers and assistant managers. Analyses were conducted using survey data obtained from 143 maritime professionals (n=143) after removing incomplete or incorrect forms from the dataset.

3.2. Data Collection Instruments and Ethical Approval.

The survey was structured into the three distinct sections.

Section 1: Five items regarding demographic and professional information, including work environment, professional experience, gender, marital status, and age.

Section 2: The Hofstede Cultural Dimensions Scale, comprising 26 items measured on a five-point Likert scale. This scale covers the sub-dimensions of power distance, uncertainty avoidance, collectivism/individualism, long-term/short-term orientation, and femininity/masculinity.

Section 3: The Rahim Organizational Conflict Scale-II (ROCI-II, Form B), consisting of 28 items on a five-point Likert scale. This instrument measures five sub-dimensions: integrating, compromising, obliging, dominating, and avoiding.

Before initiating the data collection process, ethical approval was obtained from the relevant university Ethics Committee on December 9, 2024 (Project Number: 595).

3.3. Data Analysis.

Statistical analyses were performed using Python. Principal Component Analysis (PCA) and Exploratory Factor Analysis (EFA) were conducted to ensure validity and reliability. Pearson Correlation Analysis and Regression Analysis were applied to determine the relationships between the sub-dimensions of the scales and to identify their predictive effects. Additionally, independent samples t-tests were used for comparisons between two groups, and one-way ANOVA tests were employed for three or more groups to analyze group differences.

4. Findings.

4.1. Demographic Characteristics of The Sample.

The study included 125 male and 18 female participants, with 107 working onboard ships and 36 based in offices. Over half of the participants were married (54.5%), 68.5% were over 30 years old, and 69.2% possessed five years or more of professional experience.

4.2. Demographic Characteristics of The Sample.

As shown in Table 1, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.910 for the Cultural Dimensions Scale and 0.905 for the Organizational Conflict Scale. All values are larger than the threshold of 0.70, which means good adequacy. Furthermore, Bartlett's Test of Sphericity, employed to evaluate the inter-correlation and factorability of the variables, produced statistically significant results for both the Cultural Dimensions Scale ($\chi^2=7856.11$, $p=0.000$) and the Organizational Conflict Scale ($\chi^2=8943.26$, $p=0.001$).

4.3. Demographic Characteristics of The Sample.

A regression analysis was conducted to determine the impact of cultural dimensions (independent variable) on organizational conflict (dependent variable). According to the regression model in Table 2, cultural dimensions exhibit a statistically significant positive relationship with organizational conflict ($p<0.05$). Overall, cultural dimensions account for 28.9%

of the variance in organizational conflict ($R^2=0.289$). Specifically, a one-unit increase in the perception of cultural dimensions yields a 0.277 unit increase in the organizational conflict variable ($\beta=0.277$, $p<0.05$).

Examination of the regression model in Table 3 reveals that certain cultural subdimensions have a statistically significant relationship with organizational conflict ($p<0.05$). Collectively, these subdimensions explain 29.1% of the variance in organizational conflict ($R^2=0.291$).

Table 1: Results of exploratory factor analysis.

Cultural Dimensions Scale	Variance Explained	Cronbach's Alpha (CA)
Power Distance	19.44%	0.821
Uncertainty Avoidance	17.65%	0.817
Collectivism / Individualism	14.29%	0.814
Long-Term / Short-Term Orientation	12.66%	0.813
Femininity / Masculinity	9.18	0.809
KMO = 0.910; Bartlett's $\chi^2=7856.11$ and $p=0.000$; Total Variance Explained: 73.22%		
Organizational Conflict Scale	Variance Explained	Cronbach's Alpha (CA)
Obliging	20.37%	0.820
Integrating	18.96%	0.819
Avoiding	16.54%	0.816
Dominating	13.09%	0.812
Compromising	10.21%	0.810
KMO = 0.905; Bartlett's $\chi^2=8943.26$ and $p=0.000$; Total Variance Explained: 79.17%		

Source: Authors.

Table 2: Regression results for the impact of cultural dimensions on organizational conflict.

Independent Variables	Unstandardized	Standardized Coefficient	t-statistic		p
	β	Standard Error (SE)	β		
Constant	2.597	.233		11,139	.000*
Cultural Dimensions	.226	.066	.277	3.417	.001*
R ² = 0.289; F _{calculated} = 21.68; F _{significance} = 0.000; Harvey test (p) = 0.153; LM test (p) = 0.106 Jarque-Bera (p) = 0.219					

Source: Authors.

Table 3: Regression results for the impact of cultural subdimensions on organizational conflict.

Independent Variables	Unstandardized		Standardized coefficient	t-statistic	p
	β	Standard Error (SE)	β		
Constant	2.476	.325		7.606	.000*
Power Distance	.076	.032	.214	2.341	.021*
Uncertainty Avoidance	.171	.069	.163	2.716	.028*
Collectivism / Individualism	.011	.047	.023	.243	.809
Long-Term / Short-Term Orientation	.193	.086	.198	2.261	.025*
Femininity / Masculinity	.232	.057	.292	4.090	.013*
R ² = 0.291; F _{calculated} = 31.58; F _{significance} = 0.000; Harvey test (p) = 0.139; LM test (p) = 0.144 Jarque-Bera (p) = 0.283					

Source: Authors.

5. Discussion and Conclusion.

5.1. Evaluation of Cultural Dimensions (Including Demographic Characteristics).

An examination of the percentage distributions and group comparison analyses regarding cultural dimensions reveals the following profile for the surveyed Turkish seafarers:

- Participants exhibit high uncertainty avoidance (mean $\pm$ standard deviation = 4.19 ± 0.44) and a high level of longterm orientation (4.16 ± 0.43). Furthermore, they demonstrate low power distance (2.63 ± 0.68), moderate-to-high collectivism (3.50 ± 0.70), and a neutral stance regarding masculinity/femininity (3.01 ± 0.97).
- Male participants (2.68 ± 0.67) reported a higher power distance compared to females (2.26 ± 0.63). Men also scored higher in collectivism (Male: 3.55 ± 0.70 ; Female: 3.15 ± 0.56) and masculinity (Male: 3.14 ± 0.93 ; Female: 2.16 ± 0.84). Seafarers with 16–20 years of service displayed higher power distance (3.11 ± 0.74) than those in other experience brackets. And finally, maritime professionals aged 40–49 demonstrated a higher power distance (2.84 ± 0.71) compared to other age groups.

One mistake in the maritime industry can be catastrophic, leading to huge financial losses or environmental disasters. Therefore, safety management systems have very strict procedures, policies and guidelines. These structural characteristics align closely with the findings of this study. In such a high-risk environment, it is understandable that maritime professionals prioritize the avoidance of uncertainty.

Nevertheless, high uncertainty avoidance can have dual consequences. While it can strengthen organizational resilience (Fietz et al., 2021) and promote safety-oriented behaviors, perceptions, and attitudes (Okolie & Okoye, 2013), it may also hinder the acceptance of risks necessary for innovation (Shane, 1993). It can also lead to an over-reliance on static procedures and impede the development of strategies to cope with ambiguous and dynamic safety scenarios (Helmreich, 1999).

A study analyzing 12,675 ship detention records in the Tokyo MOU region identified correlations between cultural dimensions and detention rates. It was found that there is a negative correlation between individualism and uncertainty avoidance, and a positive correlation between long-term orientation and power distance (Bao & Yip, 2010). Based on the findings of this study, it can be deduced that the vessels operated by our participants are less likely to face port state detentions, given their remarkably high *uncertainty avoidance* and low *power distance* scores.

Existing literature indicates that cultural dimensions significantly influence human error. For example, a study of the container shipping industry revealed that high *uncertainty avoidance* and *collectivism*, and low *power distance*, helps in reducing human error (Lu et al., 2012). Hence, in general, the participants of this study, characterized by high *uncertainty avoidance*, low *power distance*, and moderate to high *collectivism*, are expected to have a lower propensity for human error.

In high-risk industries such as aviation and maritime, safety culture remains a critical area of research (Helmreich, 1999; Håvold, 2005; Noort et al., 2016; O'Connor et al., 2011; Okolie & Okoye, 2013). Safety culture encompasses a broad spectrum of constructs such as collaboration, knowledge sharing about safety, incident reporting practices, and risk communication, all of which are likely influenced by underlying cultural tendencies (Noort et al., 2016). For instance, crew members with low *power distance* working on the navigational bridge or in enclosed spaces might challenge traditional risk management strategies by proactively reporting any observed safety deficiencies to their superiors. Based on the study by Okolie and Okoye (2013), we can say that our participants' cultural characteristics, high uncertainty avoidance, high long-term orientation, low power distance and moderate-to-high collectivism, facilitate their safety-related behaviors, perceptions, and attitudes.

As communication, technology, and education advance, movements toward freedom and independence in society become more pronounced, causing a decline in power distance. Our study aligns with this global trend, as older participants showed greater power distance compared to younger participants. Furthermore, while masculinity is not strictly tied to biological gender in all literature, our study showed that men exhibit more masculine traits than women (Hofstede et al., 2010).

Finally, the analysis indicated no significant differences in the cultural codes of the surveyed seafarers based on their marital status.

5.2. Evaluation of Conflict Resolution Tendencies (Including Demographic Characteristics).

Analysis of the percentage distributions and group comparisons regarding participants' conflict resolution tendencies reveals the following findings:

- Primarily, participants demonstrate a strong preference (scoring at the upper extreme of the high level) for the integrating style (4.15 ± 0.42), as well as a high preference for the compromising style (3.81 ± 0.48). Conversely, they refrain from avoiding style (2.71 ± 0.71) and maintain a neutral stance toward compromising (3.33 ± 0.52) and dominating (2.91 ± 0.58) styles.
- Regarding professional experience, participants with 1–5 years of service prefer the obliging (3.56 ± 0.61) and compromising (3.97 ± 0.46) styles more frequently than those in other experience cohorts. The youngest group (20–29 years) preferred more the obliging (3.49 ± 0.56) and dominating (3.12 ± 0.67) styles, than the other age groups. Finally, as far as marital status is concerned, single participants prefer the dominating dimension (3.09 ± 0.63) compared to married participants.

The maritime professional performs routine tasks with clear job descriptions in team-oriented environments with sufficient time to complete the tasks. However, in case of emergency or maneuver, time is very limited and action is immediate. Therefore, it is more accurate to evaluate their conflict resolution methods based on these operational dynamics.

The *integrating* tendency is particularly suggested for complex issues that require collective effort and adequate time. Conversely, the *compromising* tendency is appropriate when both parties hold equal power and a temporary solution is required to prevent long-term conflict (Rahim, 2001). It is believed that maritime professionals' tendency towards *integrating* and *compromising* styles to resolve conflicts, except in emergency situations, aligns with the functioning of the profession and the theoretical conceptualizations in the literature regarding these styles.

In the maritime sector, where crew sizes (which is stated on safe manning certificate) are often reduced and individual workloads increased, all operational procedures naturally carry critical importance. Consequently, maritime professionals understandably do not prefer the *avoiding* tendency, which is better suited for trivial or minor issues (Rahim, 2001).

The *dominating* style is prioritized during emergencies, such as fire or abandoning ship, when rapid decision-making is vital and a clear hierarchy must be maintained. By contrast, the *obliging* is a style, often favored by young, inexperienced officers, preferred when the opposing party is correct or when preserving a relationship is beneficial (Rahim, 2001).

These findings, particularly concerning the preference for integrating, mirror previous studies of seafarers' conflict resolution methods (Garcia et al., 2019; Jamora et al., 2020; Dedaş, 2024). In parallel with our results, some studies analyzing the relationship between demographic characteristics and conflict resolution styles demonstrates that age (Havenga, 2008), professional experience (Rahim et al., 2022) and marital status (Jamora et al., 2020) are related. Moreover, a study conducted with seafarers showed that marital status and experience influence the choice of conflict management tendencies (Jamora et al., 2020). Nevertheless, while other studies in the literature suggest that it may affect conflict resolution styles (Rahim, 1983; Rahim et al., 2022), certain studies indicate that there is no significant difference based on gender (Shadare et al., 2011; Agras & Oz, 2022).

The most notable demographic result is for officers aged 20–29 with 1–5 years of experience. Because they are at the bottom of the hierarchy, they tend toward *obliging* and *compromising* styles that reflect the influence of the stronger opposing party. They have low to moderate concern for self and high concern for others.

The hierarchical nature of ships implies that these officers are in contact with subordinates and superiors, and as such, a dualistic approach to conflict resolution styles is used. They tend to use *dominating* styles with their subordinates and *obliging* styles with their superiors. This is consistent with research showing that while younger participants may prefer *obliging*, *avoiding* or *compromising* styles (Havenga, 2008; Akman & Yakut, 2018), they also prioritize the *dominating* tendency (Havenga, 2008). Finally, this study found no statistically significant difference in conflict resolution tendencies based on gender.

5.3. Evaluation of The Relationship Between Cultural Dimensions and Conflict Resolution Tendencies.

Individual conflict resolution styles may vary according to cultural dimensions or professional context. For example, cultures with high power distance and masculinity typically prefer the *dominating* style, whereas those characterized by uncertainty avoidance, collectivism, and femininity tend toward *integrating* styles (Caputo et al., 2019). Moreover, a study conducted in the automotive industry revealed that buyers prefer the *integrating* style to resolve conflicts to a greater extent than suppliers, while suppliers tend to adopt more *obliging* and *avoiding* styles (Kozan et al., 2006).

Pearson correlation analysis reveals the following significant relationships between cultural codes and conflict management styles ($p < 0.05$), as follows (Table 4):

- Power distance exhibits a positive correlation with the avoiding and dominating styles, and a negative correlation with the integrating and obliging styles.
- Uncertainty avoidance demonstrates a positive correlation with the integrating and compromising styles.
- Long-term orientation is positively correlated with the integrating and compromising styles.
- Finally, the masculinity / femininity dimension reveals a positive correlation with the avoiding and dominating styles.

Table 4: Correlation Analysis Between Cultural Dimensions and Organizational Conflict.

	Obliging	Integrating	Avoiding	Dominating	Compromising	Organizational Conflict
Power Distance	r -0.166*	-0.269*	0.368*	0.359*	-0.092	0.239*
	P 0.038	0.001	0.000	0.000	0.273	0.009
Uncertainty Avoidance	r -0.005	0.276*	0.026	-0.016	0.237*	0.138*
	P 0.956	0.001	0.756	0.852	0.004	0.001
Collectivism / Individualism	r 0.122	0.119	0.065	0.033	0.083	0.135
	P 0.145	0.158	0.443	0.693	0.326	0.108
Long-Term/Short-Term Orientation	r 0.112	0.252*	0.037	0.036	0.153*	0.159*
	P 0.185	0.002	0.662	0.668	0.008	0.008
Femininity/Masculinity	r 0.152*	-0.059	0.244*	0.256*	0.049	0.280*
	P 0.009	0.484	0.003	0.002	0.564	0.001
Cultural Dimensions	r 0.067	0.037	0.237*	0.245*	0.102*	0.270*
	P 0.428	0.663	0.004	0.003	0.004	0.001

Source: Authors.

These findings are consistent with the broader literature; for example, the positive correlation between power distance and avoiding and dominating styles fully aligns with the findings of Gunkel et al. (2016), examining the relationship between cultural dimensions and conflict resolution styles in a multinational sample of 1,527 participants.

Additionally, Hofstede et al. (2010) indicated that the individualism/collectivism subdimension of cultural codes cannot be accurately measured for certain professions. This important finding may clarify the reason for the absence of any correlation between individualism/collectivism and conflict management methods in this study.

5.4. Evaluation Based on Work Environment: Shipboard Versus Office-Based Personnel.

While both shipboard and shore-based maritime professionals prioritize organizational culture, employee well-being, work-life balance, and safety through collaborative efforts for a healthy organizational environment, distinct differences remain between the two groups. Seafarers working onboard focus on immediate working conditions and interpersonal factors, such as mutual respect. Conversely, shore-based managers may emphasize concerns related to corporate governance, strategic innovation, and financial management (Slišković & Katsounis, 2025).

Inherently, maritime working conditions are substantially more rigorous and stress-inducing compared to shore-based environments. Under such circumstances, seafarers with more than a year of service exhibit higher rates of general psychological symptoms, including somatization, depression, and phobic anxiety, in comparison with shore-based counterparts (Karadağ, 2019).

Seafarers maintain contact with numerous shore-based entities, such as owners, operators, charterers, port authorities, and shipyards. But these relationships can sometimes be strained. In particular seafarers can be exploited or operationally coerced by shore-side staff in developing countries. These interactions are often characterized by a wide gulf of understanding, a lack of trust and extensive operational pressure (Sampson et al., 2016). Such negative dynamics can increase seafarers' workloads and trigger unexpected organizational conflicts.

Recent research aims to improve cultural alignment by identifying barriers between shipboard and shore-based personnel. A study suggest adopting a culture based on "people-first" values, holistic communication, low power distance, and reciprocal trust to facilitate this alignment, noting that hierarchy, patriarchy, autocracy, and disconnected communication remain primary barriers to cohesion (May, 2023).

In our study, shipboard personnel exhibited significantly higher cultural power distance (Shipboard: 2.73 ± 0.65 ; Office-based: 2.32 ± 0.67) and masculinity (Shipboard: 3.17 ± 0.95 ; Office-based: 2.56 ± 0.91) compared to their office-based counterparts. Based on these findings, it can be inferred that, office-based managers, operating outside the high-risk and emergency-prone environment of the ship, tend to be more effective and solution-oriented by relying on their own experience and their teams with a lower power distance.

From an occupational perspective, while engineers in various professions tend to focus more on technical performance, managers focus on both technical and human-centric issues. General office workers, on the other hand, place relatively less emphasis on competitive success and prioritize interpersonal relationships. Consistent with these professional dynamics, the cultural masculinity of an engineer is generally higher than that of a manager, and a manager's masculinity is, in turn, higher than that of a standard office worker (Hofstede et al., 2010). Our finding that shipboard personnel (including engineers, captains, and captain candidates) exhibit more masculine traits compared to office-based personnel strongly aligns with this established literature. Ultimately, however, no statistically significant difference was detected in organizational conflict resolution styles

between participants based on their work environment (shipboard versus office-based).

Conclusions.

This study fills a significant gap in existing literature by comparatively analyzing the cultural codes and organizational conflict resolution tendencies of shipboard and shore-based personnel, which are the core workforce of the maritime industry. Given the influential role that the human factor plays in maritime accidents, the necessity of ensuring sectoral safety not only through technical measures but also through socio-cultural harmony between ship and shore formed the basic starting point of this study.

Despite previous findings suggesting that seafarers exhibit high power distance (e.g., Atik, 2013), low power distance scores in this study may signal a transformative shift in the maritime sector. It is believed that the Bridge Resource Management (BRM) training under the Standards of Training, Certification and Watchkeeping for Seafarers (STCW) Convention, which entered into force in 2012 and were fully implemented in 2017, could have a significant role in these changes (IMO, n.d.). Furthermore, the finding that seafarers in the 40-49 age group show a higher power distance than younger seafarers in this study reflects this generational shift.

The most striking finding regarding the relationship between cultural codes and conflict resolution styles is that, regardless of their level of concern for self, participating maritime professionals choose conflict resolution styles that reflect high concern for others. Indeed, our correlational analyses indicate that power distance is negatively correlated with *integrating* and *obliging* tendencies (reflecting a high concern for others), while it exhibits a positive correlation with *dominating* and *avoiding* tendencies (reflecting a low concern for others).

In addition, this is supported by the fact that cultural characteristics of uncertainty avoidance and long-term orientation are positively correlated with *integrating* and *compromising* tendencies (reflecting a high or moderate concern for others). Seafarers who have to rely on each other in an isolated environment under harsh conditions may prefer conflict resolution styles that prioritize a high concern for others as a result of operational necessity.

When examined by demographics, two findings stand out: seafarers aged 40 - 49 maintain higher power distance than younger participants, and the youngest seafarers (ages 20–29) utilize a dualistic approach - toggling between dominating and obliging styles based on their hierarchical position.

The primary and unique contribution of this study is the paradoxical structure of ship-shore interaction. The research indicates that shipboard personnel have created a subculture that has significantly higher masculinity and power distance compared to shore-based personnel. This differentiation can be attributed to harsh conditions, hierarchical structure, and necessity of absolute authority during emergency situations on ships. In contrast, the shore-based personnel seem to have more feminine characteristics of culture with the environment created by a safer place and a flatter organizational structure.

However, despite these clear cultural differences, the impressive conclusion of this study is that there is no statistically significant difference between shipboard and shore-based personnel regarding conflict resolution tendencies. This conclusion shows that regardless of their physical location and cultural characteristics, both personnel with differences in job descriptions, risk perceptions and hierarchical organizations activate the procedures and collaborate with each other when conflict resolution is needed in critical situations.

To sum up, this study indicates that ship-shore integration in human-centered maritime research is not only a technical or managerial issue, but a complex socio-cultural process that requires in-depth consideration. Shipping companies should acknowledge the cultural differences between the seafarers and the office staff to ensure operational success and safety. They should also foster a trust-based organizational culture by using conflict resolution skills—which are common to both groups—as a flexible bridge.

In conclusion, based on the findings and assessments discussed in the previous sections, it appears that all of the research hypotheses H1, H2, and H3 formulated in Section 2 have been partially supported.

Conclusions are drawn on what has been explained previously. Conclusions should not be drawn from assumptions, ideas or data not presented in the previous sections.

Limitations.

Despite the valuable findings of this study in terms of the relationships between conflict resolution styles and cultural dimensions in the maritime industry, there are several methodological and contextual limitations.

One of the limitations is that the present study was conducted on a sample of 143 Turkish maritime participants. Another limitation is that only 18 persons of the participants are women and 36 persons work in an office. The global maritime industry today commonly uses “flags of convenience” and, consequently, it is increasingly common to find multinational crews. Hence findings from a single national culture may be of limited generalizability.

The present research employs a quantitative, cross-sectional design based on self-report questionnaires. In highly regulated industries such as the maritime industry, where a safety culture is a top priority, there is a potential that participants may have exhibited social desirability bias, answering in a way that reflects the institutional expectation rather than personal reality.

Recommendations.

The study provides several important insights in the sectoral and managerial frameworks and practical implications for the maritime stakeholders such as shipping companies and educational institutions.

The cultural and structural transformations that are currently reshaping the maritime sector suggest that further research is required to explore the factors underpinning these changes. Especially, future research should look into the generation gap,

behavioral adaptations due to conventions like Bridge Resource Management (BRM), the effects of questioning authority, and the reasons for a tendency to “care about others”.

The power distance of shipboard seafarers is significantly more than shore-based personnel in this study. Such a perceptual divide can undermine communication and encourage a perilous “silence,” where seafarers are reluctant to report near misses or harassment. To bridge this gap, shore managers need to proactively establish transparent communication channels and safety policies grounded in trust.

Future research would benefit from a design that supports quantitative data with qualitative methods such as interviews, focus group discussions and simulator-assisted observations. Incorporating multinational crews in these studies will provide a more detailed understanding of the interaction between conflict tendencies and cultural dimensions on a global scale.

Finally, it is necessary to include cultural awareness and conflict management training programs in the pre-embarkation orientation or standard training modules of shipping companies and relevant departments of educational institutions.

Conflicts of Interest.

The authors have no relevant financial or non-financial interests to disclose.

Data Availability.

The data is provided upon request due to privacy and ethical restrictions.

Ethics approval.

It was obtained from the Ethics Committee of Istanbul Technical University on December 9, 2024 (Project Number: 595).

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