

Uncertain Supply Chain Management

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Indonesian seafarers in global job competition: Developing global work competencies in increasing end-user acceptance

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ABSTRACT

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The demand for global seafaring labor has also increased drastically because of a shortage of qualified seafarers. This study examined the effect of global employability competence and sensory, behavioral, and intellectual experience mediating the end-user acceptance of ship crew management. The study's sample consisted of 240 ship crew managers who employed Indonesian seafarers. The analysis was completed utilizing the Partial Least Square-Structural Equation Method. The results stated that global employability competence significantly influenced end-user acceptance, even though the sensory experience could not mediate the relationship between global employability competence and end-user acceptance. Furthermore, the behavioral and intellectual experiences bridged these links where the intellectual experience's impact was more potent than the behavioral experience to increase end-user acceptance.

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1. Introduction

The development of sea transportation has now developed rapidly. Around 90 percent of the world's business system, especially in the shipping industry from country companies, uses sea transportation (Benamara et al., 2019). The distribution of products to various countries has developed since the 1970s, especially in Southeast Asia. Nowadays, the country's economy has been able to influence the community. However, young generations are not interested in developing their careers in shipping. It happens in developed countries such as Britain, Japan, and France, which were categorized as limited human resources in shipping. This causes the change in developed countries to become backward because of limited human resources in shipping (Tang & Zhang, 2021). Therefore, the country must improve the quality and quantity of seafarers that can work and become an essential part of shipping so that the distribution of country products can spread worldwide. The shipping industry in Indonesia has experienced rapid development, but the big problem is that human resources in shipping are still in the lack of category (Praharsi et al., 2021). It causes Indonesia to increase their salaries and coat seafarers from other countries. The biggest challenge in shipping is finding seafarers who genuinely have the ability and experience and can contribute to shipping in Indonesia. The shipping industry in Indonesia can minimize the problems or obstacles that occur in the Indonesian business system. Crew recruitment and selection processes for ship crews in Indonesia have been carried out using ideal competency standards implemented by ship crewing companies (Anastasiou, 2017). However, it is often challenging to find seafarers who meet the qualifications. For example, when a company needs seafarers consisting of officers to ratings for shipping vessels, it has difficulty finding capable bodies because they do not have skilled competencies even though they already have certificates that meet the STCW amendment standards. Hence, the company must look for crew members who are genuinely qualified and appropriate according to their skill and competence. Indonesia must develop quality human resources focusing on work productivity, which can impact the economy, society, and culture. The quality of human resources is a country's identity in competing at the international level. The shipping industry is a sector that must be developed in terms of capability, experience, and loyalty of human resources in Indonesia (Raharjo & Achmad Rinaldo Fernandes, 2018). Various qualifications are given to prospective seafarers who are genuinely qualified. It is a strategy used in developing the country.

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Progress over time has become an influence in developing the acceptance of new seafarers who have the best qualities, especially education, experience, and skills in sailing (McCulloch et al., 2010). However, the current problem is unstable financial management, resulting in most seafarers resigning because of inconvenience and salaries that do not match their contracts or expectations. Seafarers also choose to remain with shipping companies only to seek personal gain. This problem causes the quality of shipping to be low. It would be worse if senior seafarers did not contribute to the sailing that new seafarers had developed.

Human resources are determined based on education, experience, and abilities, which the work environment influences (Carnevale & Smith, 2013). However, recruiting seafarers with various qualifications, such as training certificates or education in shipping, can be manipulated by prospective seafarers. What causes seafarers to not master the shipping system with the applicable competencies? Furthermore, the problem in shipping is the low wages of seafarers, which results in shipping companies experiencing a reduction in seafarers yearly (Yazir et al., 2020). In addition, several studies from Mui et al. (2018), Zhang & Zhao (2017), Othman et al. (2023), Rasu et al. (2010), Liu et al. (2021), and Wakelin-Theron et al. (2019) conclude that competency work competency does not have a significant influence on end-user acceptance. Crew owners assume that employees with certification only have adequate technical skills but lack motivation, interpersonal skills, critical thinking skills, problem-solving skills, and entrepreneurial skills (Rasu et al., 2010). Conversely, the research findings from Abbas et al. (2019), Kenayathulla et al. (2019), McKinnon et al. (20017), (Oksavik et al., 2021), (Fei & Caesar, 2018), (Kibik et al., 2019), show that there is a significant relationship between Employability Competence and end-user acceptance. Robinson (2005) states a significant demand for seafarers with general and specific technical skills. According to the theory of resource-based-view (RBV), the unique resources and capabilities of a country supplying seafaring labor are developed by developing global employability competency standards for Indonesian seafaring workers. These dimensions consist of skills in using Information Technology (IT) applications (Misra & Khurana, 2017); problem-solving (Ghosh et al., 2014); decision-making ability (Roberts, 2018); ability to adapt to work environment culture (Rayos & Borbon, 2022); multitasking (Rajapakse et al., 2022); spiritual workers (Anser et al., 2021); Cultural Repertoires (Xue & Lai, 2023). The authors are eager to improve the standard seafarer capabilities that transform into several dimensions of global competencies based on a unique resource. Developing internal resources in the form of global employability competence can increase End-User Acceptance, namely international shipping companies, towards Indonesian seafaring workers. Thus, there is a research gap in the relationship between global employability competence and end-user acceptance.

In order to address the above research gap in international shipping companies, the authors try to put brand experience by expanding into three dimensions, sensory experience, behavioral experience, and intellectual experiences, as mediators by the perspective theory of self-determination (SDT). Furthermore, international shipping companies tend to recruit seafarers based on previous work experience on their merchant ships. This leads to positive evaluations of the seafarer workforce and facilitates engagement between international shipping companies and seafarers (Ghosh et al., 2014). The SDT approach states that the success of merchant ship owners is influenced by the satisfaction of basic psychological needs (Deci et al., 1991). Fulfilling these basic needs, related to the attachment of international shipping companies to the country of origin of seafarers who work on commercial ships, is represented as a brand (Chin, 2016). Based on the national association, the match between international shipping companies and the seafarer workforce creates a brand experience demonstrating that fulfilling work competency can influence needs. Wang et al. (2022) stated that international shipping companies are satisfied with the competence of their seafaring workforce when they can solve problems with the latest technology, which influences intrinsic motivation and positive emotions in international shipping companies. The firms are more likely to look for a brand experience that matches the seafarer's country of origin when the competence of the seafarer's country of origin matches the work needs of the international shipping company. Furthermore, the researchers attempt to answer the gap in research results by putting inter-firm collaboration and government role as another mediator variable. The role of the government through related agencies in efforts to encourage and accelerate the increase in demand for Indonesian seafarers to work for international shipping companies through intensive promotion is essential. A series of international campaigns such as "Go to Sea" and "Day of the Seafarer" have succeeded in reducing problems related to work and living conditions on board ships (Christodoulou & Echebarria Fernández, 2021). According to Rai (2020), the government can develop several branding strategies to position the Indonesian seafaring workforce as a choice in the international shipping industry. This strategy includes improving the image of the existence of Indonesian seafarer workforce training facilities that meet the standards of the International Maritime Organization with the STCW convention, the characteristics of the Indonesian seafarer workforce, professionalism, and quality management certification held by Indonesian ship crew agency companies as well as competitive salaries for seafarer workers. Moreover, International shipping companies can run joint training programs with seafarer training institutions and crew agency companies to provide training for seafarer workers by investing in creating international-scale competency curriculum standards (Mazhari, 2018). Collaboration with these training institutions also bridges delivering training places for graduates so that international shipping companies can employ cadet students after training at sea. The quality of graduates can be improved by the availability of competent ship officers and seafarers at sea to assist cadet students during training on ships. Exchange of experience and receiving direct knowledge from the seafaring workforce while on board the ship will benefit cadet students who will become prospective seafarers on the ship. Ultimately, well-trained cadet students will become a reliable source of talent supply for shipowners. With access to seafarer training institutions, international shipping companies can ensure a sustainable supply of seafarer labor and fulfill their fleet development plans (Nguyen et al.,

2014). In addition, international shipping companies can strengthen their seafarer workforce by recruiting competent seafarers with high experience from other international shipping companies through facilitation from ship crew agency companies.

This research delivers four essential concerns. First, what dimensions impact the end-user acceptance of international shipping companies? The author contemplates this concern from the viewpoint of global employability competence. Second, how does global employability competence impact end-user acceptance, mediated by several brand experience dimensions? Third, how does global employability competence impact end-user acceptance, mediated by the government role? Fourth, how does global employability competence impact end-user acceptance, mediated by inter-firm collaboration? Based on the knowledge management approach, the author examines the mediating part of brand experiences, government role, and inter-firm collaboration, which bridges the relationship between global employability competence and end-user acceptance.

2. Literature Review

2.1 Theory of Resource Based View (RBV)

Resource View (RBV) is a company system that focuses on the strategies used to achieve company goals: success, progress, and development (Barney, 1991). Human resources are essential in RBV because they are the company's strength in providing work productivity, loyalty, and contribution to company development. Companies must organize and manage all aspects of their operations run by human resources. Therefore, companies must be able to compete with other companies by making changes or innovations, especially human resources, which become the company's identity so that they are different from other companies. In this research context, Indonesia's unique resources and capabilities as a country supplying seafaring workers are developed by developing global employability competence for Indonesian seafaring workers. The global employability competency dimension forms a unique resource, so it becomes a novelty in this research. These dimensions consist of skills in using Information Technology (IT) applications (Misra & Khurana, 2017); problem-solving (Ghosh et al., 2014); decision-making ability (Roberts, 2018); ability to adapt to work environment culture (Rayos & Borbon, 2022); multitasking (Rajapakse et al., 2022); spiritual workers (Anser et al., 2021); Cultural Repertoires (Xue et al., 2020). Combining internal resources in the form of global employability competence can increase End-User Acceptance of the Indonesian seafaring workforce.

2.2 Theory of Relational View (RV)

Relational View (RV) focuses on cooperation from other companies, which can benefit the company, especially resources that positively impact the company's development (Dyer & Singh, 1998). The role of external companies has an essential influence on achieving success in business (Dyer & Singh, 1998). This collaboration is an advantage for both parties in the business. They have the same goal, namely the success of both companies, which is a strength in the company's business because they will develop, organize, and implement strategies, resources, and business systems that are superior to other companies. RV was developed based on a framework for conceptualizing the relationship between the Global Employability Competence of Indonesian seafarers' workforce, which is an internal resource, as well as collaboration between companies (ship crew agency companies, ship management services companies, and shipping companies international) and the government's role as an external resource that can increase End-User Acceptance of the Indonesian seafarer workforce through the collaboration of these two resources.

2.3 Theory of Self-Determination (SDT)

Self-determination theory states that psychological well-being arises when basic psychological needs, namely autonomy, competence, and relatedness, are all met (Deci et al., 1991). This theory shows that seafarers who work for international shipping companies can positively contribute to the company's business performance through the success factors experienced by international shipping companies and customer/client satisfaction from these shipping companies. This research is supported by previous research results showing a significant relationship and influence on the subjective well-being of ship owners (Ryan & Deci, 2022).

This research focuses on shipping company satisfaction based on the experience of seafarers at the international level, which influences the recruitment of seafarers from other countries. Seafarers who are human resources can develop skills, experience, and contributions to international shipping companies by providing quality work productivity to achieve company excellence. Companies must provide opportunities for seafarers to participate in the company's development so that in the future, this can positively influence them and make the company's reputation of higher quality. It can motivate seafarers to have a good relationship with the company because they feel the company is close and understand the quality of their shipping in this era. So that seafarers can provide the best performance for the shipping company.

2.4 Relationship of Global Employability Competence and End User Acceptance

Global Employability Competence focuses on the quality of performance, which is influenced by skills in information and communication based on problem-solving abilities regarding all aspects and factors in the company (Fan et al., 2017). Performance is not only seen from the seafarer's outlook but also in character and critical thinking. Seafarers must be able to carry out responsibilities in shipping because this is a work skill. Job skills are human resource skills that focus on personal quality in basic skills, thinking, information and communication, and technology (Bachari-Lafteh & Harati-Mokhtari, 2021).

Global work competencies are competencies possessed by human resources to provide quality performance based on their competencies at the international level. It is the basis for them to develop to improve the company's performance quality (Riordan & Rosas, 2003). Recruitment for international seafarers is rigorous because the qualifications must be dedication to the company, high commitment, good communication skills, and skills in technology and information. Employment skills and attributes involve personal qualities, such as a positive work attitude, adaptability, initiative, self-confidence, willingness to learn, and stress tolerance. The Global competencies, such as Information Technology (IT) applications (Misra & Khurana, 2017); problem-solving (Ghosh et al., 2014); decision-making ability (Roberts, 2018); ability to adapt to work environment culture (Rayos & Borbon, 2022); multitasking (Rajapakse et al., 2022); spiritual workers (Anser et al., 2021); Cultural Repertoires (Xue et al., 2020), are also involved in employability (Kabir, 2014).

From the perspective of the seafaring profession, it can be described as based on global-scale work skills and great responsibility. Job skills and attributes of the seafarer workforce include subject matter knowledge, communication skills, adaptation to a multicultural environment, problem-solving skills, sense of responsibility, leadership and teamwork skills, indefatigable spirit, prudence and foresight, skill situational awareness, and physical fitness. Among these skills and attributes, communication skills are prerequisites for a quality seafaring workforce (Fan et al., 2017). Thus, global employability competence from the seafaring workforce increases trust in international shipping companies. International shipping companies appreciate and provide positive feedback, learning opportunities, training, and resources to improve necessary skills; they provide autonomy through empowerment and information sharing. It leads to increased motivation, engagement, and proactive behavior, such as increased learning. Increased knowledge and skills lead to increased confidence and competence, improving outcomes and performance for individuals and organizations. Thus, the following hypothesis is:

H₁: *Global Employability Competence has a significant effect on End-User Acceptance.*

2.5 The Mediation of Brand Experiences

The self-determination theory approach from the perspective of international shipping companies shows that satisfaction comes from the need for autonomy, competence, and relatedness, which can influence emotional attachment to the brand. It takes the perspective that the brand in question is the country of origin or nationality of the seafarers who work for the international shipping company. Furthermore, several international shipping companies perceive that seafarers' high global employability competence is reflected in the seafarers' country of origin. Job competency refers to the feelings of effectiveness, accomplishment, and challenge for international shipping companies when employing seafarers (Ryan & Deci, 2019). Global Employability Competence can influence the brand experience in the context of the seafarer workforce. An international shipping company's brand experience refers to the overall perception that customers and stakeholders have of a company based on their interactions with it, including its products, services, and reputation (Ahn et al., 2019). The job competencies of globally employable seafarers can influence the brand experience of international shipping companies in several ways. First, the companies rely on their seafaring workforce to operate their merchant vessels safely and efficiently and provide high-quality service to customers. Suppose the seafaring workforce is insufficiently trained or does not have the necessary work competencies. In that case, this can result in safety incidents, delays, or other problems that can damage the international shipping company's reputation and brand experience. Second, the job competencies of globally employable seafarers can influence the brand experience of international shipping companies by influencing perceptions of the company's commitment to the welfare and training of the seafarer workforce. Customers and stakeholders may view companies that invest in their seafarer workforce and prioritize their well-being more positively than those that do not, which can positively impact the brand experience.

Customers tend to display loyalty when highly attached to a brand (Tang & Gekara, 2020). From the perspective of the international shipping industry, they are very attached to a brand related to the country of nationality of their seafaring workforce, so they are willing to pay premium salaries to get them and still have strong commitment and loyalty (Mitroussi & Notteboom, 2015). A strong emotional bond with a brand has a higher probability that customers are more likely to forgive the brand in case of a service failure or promote the brand with positive word of mouth. In previous research, engagement influenced customers' future purchasing behavior (Bhattacharya, 2015). For example, a high level of attitudinal attachment to the brand from the country of origin of the seafarers' workforce hopes to recruit seafarers who have previously worked for the international shipping company even though there are alternative seafarers with lower salary offers. Furthermore, the brand experience can influence end-user acceptance by its ability to attract and retain a skilled seafaring workforce. Suppose the company has positive brand experience and is known for providing high-quality training and support to its seafarers. In that case, it is more likely to attract and retain skilled workers (Ahn, 2019). It can help improve the quality of a company's services and reputation among customers and stakeholders. Therefore, a shipping company's brand experience can significantly impact end-user companies' acceptance in the seafaring context by influencing reputation, regulatory compliance, and the ability to attract and retain skilled workers. The following hypothesis is:

H₂: *Brand Experiences mediate the relationship between Global Employability Competence and End-User Acceptance.*

2.5 The Mediation of Government Role

Global Employability Competence aims to get work at the global level by having a background such as knowledge, education, and experience, especially in shipping (Ghosh et al., 2016). The government has a vital role in developing global work

competencies by compiling, regulating, and managing all aspects that influence the performance of seafarers, especially education and training funds for seafarers to provide higher quality performance. According to Tsai & Liou (2017), seafarers must also try to convince companies to provide funding for education and training by showing their quality at work. The government has a greater responsibility to improve seafarers' work competency by making policies that require seafarers to follow competency standards in shipping, especially applicable SOPs. So that seafarers understand every aspect of shipping, such as work rules, safety, and performance, which are controlled by maritime companies (Manuel, 2017). According to Nguyen et al. (2014), the government has the authority to check, control, and determine the suitability of seafarers based on distribution industry standards, such as the legality of training and education certificates in shipping. The shipping has SOPs that must be adhered to by seafarers as guidelines for working on shipping. This is a legality that the government has approved in the shipping industry, which is the company's reputation. The problem in the shipping industry is that companies do not care about the quality of seafarers in shipping. They do not receive adequate education or training, which results in poor performance, and the company's reputation will also be harmful. This will hurt customers and companies that work with the company. Their trust will be lost because the company's reputation is terrible. Therefore, companies must create an international shipping program in the form of shipping standards whose legality has been tested at the international level so that the company's contribution can provide the best reputation in shipping (Li et al., 2014). It can help incentivize international shipping companies to invest in their seafaring workforce and promote a positive image within the maritime industry and merchant shipowner community. The government's role in setting standards and regulations for the international shipping industry can significantly impact end-user acceptance based on its treatment of the seafaring workforce. Thus, the following hypothesis is:

H₃: *Government Role mediates the relationship between Global Employability Competence and End-User Acceptance.*

2.6 The Mediation of Inter-Firm Collaboration

Inter-firm collaboration aims to mitigate the complexity and uncertainty associated with collaboration on the benefits and costs arising in alliances, identification and potential partners, and negotiation of the terms and structure of the relationship. In this context, the global employability competence of the seafaring workforce can form alliances and collaborations through ship crew agency companies to better overcome this complexity and uncertainty (Albert et al., 2016). International shipping companies recruit seafarers based on global employability competence, requiring collaboration with ship crew agency companies to provide references regarding optimal seafarer performance. For example, Gammoh and Voss (2013) suggest that firms with solid alliance competencies may develop a mindset that focuses on finding and forming new alliances. Firms with high alliance competence, seeking opportunities to use cooperative relationships for mutual benefits, should optimize the benefits of interfirm alliances. The main benefit that can be obtained is building collaboration between companies that position international shipping companies in a way that allows other crew agency companies to provide seafarers with high quality and competency (Pantouvakis & Syntychaki, 2022). This can strengthen the associations that consumers have regarding brand quality. In this way, companies can use the capabilities they have gained in forming alliances to form inter-firm collaboration, which helps advance the reputation of seafaring workers from ship crew agency companies, thereby increasing inter-firm collaboration. The high level of global employability competence of seafaring workers in carrying out operational duties on commercial ships is an important factor for international shipping companies in increasing collaboration with ship crew agency companies regarding providing seafaring workers with international scale capabilities. Strong support for the relationship between interfirm collaboration and performance fully enhances innovative performance (Cao & Zhang, 2011). Information exchange facilitates affiliates to forecast market demand and adjustments precisely in a collaborative seafarer recruitment process (Yan & Dooley, 2013). By collaborating with other companies in the industry, international shipping companies can promote best practices regarding seafarer welfare, training, and safety, enhance their reputation and competitive advantage, and ultimately increase the satisfaction of their clients or customers, referred to as end-users. Thus, the following hypothesis is:

H₄: *Inter-firm Collaboration mediates the relationship between Global Employability Competence and End-User Acceptance.*

3. Methodology

3.1 Questionnaire

This research aims to identify the problems faced by seafarers in the shipping industry. This research uses a questionnaire as a data collection technique that focuses on global work competencies. This research analysis technique also uses convergent analysis and data path analysis. This questionnaire is based on the Global Employability Competence theory in the form of information technology, critical thinking, commitment and contribution, and multitasking (Fan et al., 2017; Manuel, 2017; Xue et al., 2020; Ghosh et al., 2016; Kenayathulla et al., 2019; Anser et al., 2021). Inter-firm Collaboration consists of three items: effective coordination between shipping management and ship owners, sharing information and knowledge, and collaborative training (Ariadi, 2022; Gammoh & Voss, 2013b). Subsequently, Government Role consists of three items that are cooperation between government and international organizations, training support, and regulation enforcement (Wang & Yeo, 2016; Yuen et al., 2018). Brand experience has three dimensions: sensory experience, behavioral experience, and intellectual experience (Ahn, 2020; Choi et al., 2017; Jo et al., 2020). Lastly, end-user acceptance consists of three items: adequate job instructions, efficient working time, and seafarer retention (Tsai & Liou, 2017). This questionnaire uses a Likert scale, namely strongly disagree with a score of 1 to agree with a five firmly.

3.2 Sampling

This research aimed to examine problems in the recruitment system for seafarers in the shipping industry. The questionnaire was given to the company's CEO, responsible for recruiting seafarers at the international level. Of the 312 questionnaires sent by researchers to the company's CEO, 240 were returned, and 72 questionnaires were categorized as incomplete and were deleted. Then, 240 were declared valid, and this research showed that 76.92 percent of the questionnaires were returned. The following is the demographic sample for this study:

Table 1

Demographics

Characteristic	Frequency	Percent	Characteristic	Frequency	Percent
Education Level			No of Seafarers in a Ship		
University	193	80,42%	< 100	167	69,58%
Master	47	19,58%	> 100	73	30,42%
Tenure			Working Experience		
5 – 10 years	35	14,58%	5 - 10 years	43	17,92%
10 – 20 years	151	62,92%	10 – 20 years	81	33,75%
> 20 years	54	22,50%	> 20 years	116	48,33%

3.3. Scale validation

This study uses PLS-SEM (partial least square-structural equation modelling) which is a model technique that focuses on structural equations based on the estimated purpose. Table 2 shows the loading of standard items ranges from 0,709 to 0,899, the Alpha Cronbach construct ranges from 0.924 to 0.960, and the extracted average variant (AVE) ranges from 0.871 to 0.926. Table 3 shows that we have also conducted Heterotrait and Monotrait (HTMT) test for verifying the discriminant procedure that the construct value is lower than 0,9. It. The results show the level of reliability, convergent, and validity that is very acceptable.

Table 2

Item Measurement Model

Item Name	Item Loading	Cronbach's alphas	AVE	Item Name	Item Loading	Cronbach's alphas	AVE
Problem Solving				Spiritual Worker			
PS1	0.807	0.942	0.895	SW1	0.899		
PS2	0.806			SW2	0.919	0.945	0.901
PS3	0.781			SW3	0.889		
Use of IT				Sensory Experience			
UIT1	0.721	0.926	0.871	SE1	0.806		
UIT2	0.794			SE2	0.807	0.946	0.902
UIT3	0.746			SE3	0.781		
Decision Management				Behavioural Experience			
DM1	0.709	0.954	0.915	BE1	0.888		
DM2	0.817			BE2	0.85		
DM3	0.781			BE3	0.836	0.949	0.907
Operating in organizational support				Intellectual Experience			
OOS1	0.899			IE1	0.785	0.954	0.916
OOS2	0.82	0.951	0.911	IE2	0.76		
OOS3	0.716			IE3	0.899		
Multitasking				Government Role			
MT1	0.796			GR1	0.791		
MT2	0.94	0.946	0.902	GR2	0.76	0.96	0.926
MT3	0.904			GR3	0.808		
End-user Acceptance				Interfirm Collaboration			
EUA1	0.768			IC1	0.768		
EUA2	0.847	0.936	0.886	IC2	0.847	0.941	0.895
EUA3	0.864			IC3	0.864		

Table 3

Discriminant Validity

Construct	GEC	BE	IC	PP	AE
GEC					
BE	0.486				
IC	0.494	0.891			
PP	0.707	0.486	0.669		
AE	0.632	0.585	0.672	0.719	

4. Result Analysis

This study uses PLS-SEM as an analysis in a structural model. There are three stages carried out in this research. First, the researcher determines the path coefficients and statistical significance focusing on the outcomes that have an influence.

Second, the coefficient of determination (R2) which focuses on endogenous variables used to calculate predictive power. The researcher tested the relative importance based on the first-level indicators which focused on the second-level constructs related to the weight of the indicators (Hair Jr et al., 2014). Fig. 1 is the result of the structural model and Table 4 is the result of the standard path coefficient model of this study. In addition, Fig. 1 and Table 4 describe the path coefficient of Global Employability Competence to End-user Acceptance is positive and significant ($\beta = 0.342$; p -value < 0.01), so that H1 is supported. Moreover, the indirect relationship of the Global Employability Competence to End-user Acceptance through Brand Experiences, and Interfirm Collaboration as mediators are also positive and significant respectively ($\beta = 0.079$, $p < 0.01$; $\beta = 0.085$, $p < 0.01$). H2 and H4 in the supported category. It can be concluded that the intervening variable has an influence in the partial mediation used to link Sustainable Supply Chain and Sustainability Performance. Conversely, the indirect relationship of the Global Employability Competence to End-user Acceptance through Government Role as mediator is positive and non-significant respectively ($\beta = 0.025$, $p > 0.05$). So, H3 is not supported.

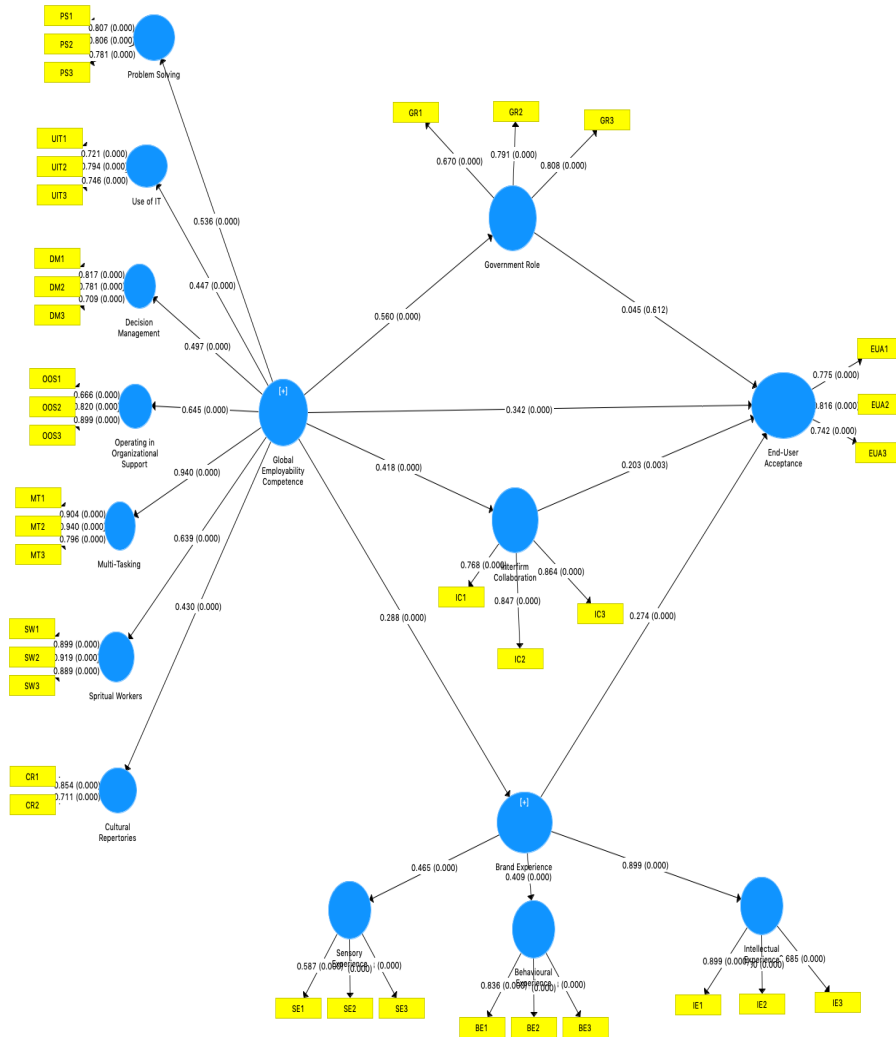


Fig. 1. The Model Results

Table 4
The Hypotheses Results

Hypotheses	Relationship	Standardized effect	Test Result
H1	Global Employability Competence → End-user Acceptance	0.342	Significant 99%
H2	Global Employability Competence → Brand Experience → End-user Acceptance	0.079	Significant 99%
H3	Global Employability Competence → Government Role → End-user Acceptance	0.025	Non-Significant
H4	Global Employability Competence → Interfirm Collaboration → End-user Acceptance	0.085	Significant 99%

5. Findings and Implications

The results of this research indicate that global employer competency significantly influences end-user acceptance in seafarer crew management companies. These competencies can carry out basic functional tasks on foreign shipping vessels. Related to this, the multi-tasking dimension is the central aspect that has the most influence on increasing the competence of Indonesian seafarers on foreign-owned shipping vessels compared to other dimensions. The needs of foreign shipping vessels that prioritize seafarers' competence in multi-tasking in the form of decision-making processes by seafarers, such as determining the most efficient routes and simultaneously carrying out technical automation, such as prediction and diagnosis of failures in the event of extreme weather such as typhoons. The work carried out by seafarers, such as automation from the use of low-level applications where the system only collects information, on the other hand simultaneously, the seafaring crew analyses and determines the nature of the information collected and acts according to their duties and responsibilities. Thus, the implementation of work instructions becomes more effective, and the time for completing tasks becomes more efficient (Tsai & Liou, 2017). The use of new applications and information technology for shipping vessels is becoming increasingly important in the maritime industry. Hence, most Indonesian seafarers are already competent to use digital-based navigation tools and read weather forecasts from information system applications on ships. For example, information communication technology, such as Big Data Analytics competency, has become a new requirement for seafarers working on autonomous ships where crew management companies recognize that they can operate technology, information systems, and equipment based on internet networks (Jo et al., 2020). Furthermore, implementing maintenance activities in shipping operations is a dimension of operating in an organizational environment that can increase the competence of seafarers on a global scale. Scheduled engine maintenance is crucial to maintaining sustainable operational activities of shipping vessels when navigating the high seas where weather and storm conditions are unpredictable and extreme. Companies must prepare, organize, and manage facilities, bills, and operational time and resolve problems within the company. This is a company strategy to improve the quality of seafarers by following applicable SOPs so that problems and obstacles that occur during shipping can be minimized and the shipping process at sea runs smoothly (Islam et al., 2017).

Then, seafarers' vision, organizational commitment, and willingness to sacrifice can be characteristics of spiritual workers. From the crew manager's point of view, most Indonesian seafarers are pretty qualified and maintain their ongoing loyalty to the company. Indonesian seafarers have a strong relationship with spirituality in the work environment in developing soft skills to increase positive contributions to shipping companies' organizational spiritual leadership culture. Thus, spiritual workers can potentially encourage seafarers' creative and innovative spirit by encouraging them to speak openly and express their spiritual values as part of creating values that are in harmony with each other and improving organizational performance (Hunsaker, 2022). A hierarchical organization with a social structure for seafarers, when they start working on a ship resulting in cultural repertoires, can hinder communication regarding actual safety procedures from seafarers in general who are well qualified and competent. Most Indonesian seafarers can make social adjustments with colleagues and supervisors where Indonesian seafarers respect and appreciate their superiors. Furthermore, multicultural knowledge and the ability to adapt to multicultural and multilingual work environments will increase seafarers' communicative competence. In this way, the soft skills of Indonesian seafarers can increase the acceptance of foreign ship owners to employ seafarers from Indonesia (Fan et al., 2017). Moreover, seafarers' problem-solving is an individual's capacity to use cognitive processes to solve problems that occur in shipping. For example, extreme weather conditions resulting from a hostile marine environment can affect ship engine maintenance actions by seafarers. In these conditions, most Indonesian seafarers can analyze and project based on future weather data so that seafarers will carry out ship engine maintenance earlier than the schedule previously set with permission from the supervisor. Furthermore, decision management from seafarers when facing problems must be decided immediately; otherwise, it could hurt the ship's condition. For example, pack ice management operations while sailing because the safety of these operations depends heavily on the judgment and decision-making of experienced captains and their bridge teams and the team's ability to adapt tasks regularly. Most Indonesian seafarers can regularly adapt operating procedures to safely manage offshore ice floes through increased transfer of skills from experienced operators to new seafarers working on ships. The results of this research support the findings of Tsai & Liou, (2017); Jo et al., (2020); Islam et al., (2017); Hunsaker, (2022); Fan et al., (2017); (Islam et al., 2018); (Smith et al., 2020), which shows that Global Employability Competence increases end-user acceptability in seafarer crew management companies.

The empirical data research results state that global employability competence can indirectly increase end-user acceptability through the brand experience in the shipping industry. Its seafarers provide impressive experience for foreign shipping vessel owners. The findings of this research confirm that the seven dimensions of Global Employability Competence influence the positive emotional attachment of crew management to the brand of seafarers from Indonesia. Apart from that, in line with the positive psychology perspective, the influence of the multi-tasking dimension, which is part of seafarer competency, on the intellectual experience dimension means that Indonesian seafarers are recognized as able to carry out work instruction tasks simultaneously. When crew management is satisfied with the spiritual worker, a seafarer's work competency in the ship environment, they tend to experience a more positive interaction with Indonesian seafarers. The theoretical perspective of self-determination, which explains the behavior of ship crew management in recruiting Indonesian seafarers based on experience working on previous ships based on assessments from sensory, behavioral, and intellectual dimensions where the intellectual experience dimension is the main factor in influencing positive perceptions for Indonesian seafarers in particular related to the knowledge and skills of seafarers.

Crew management can feel satisfied with competency needs when the recruited seafarers can work well and achieve the desired goals using their capabilities or abilities (for example, problem-solving and multi-tasking). Furthermore, ship crew management tends to feel a high level of attachment to Indonesian seafarers when the work competencies of the recruited seafarers match their expectations. Therefore, the research results show that the dimensions of operating in an organizational environment, namely working by standard operational procedures and prioritizing urgent tasks, are the main factors influencing sensory experience satisfaction. Hence, ship crew management views Indonesian seafarers as responsible for preventing accidents at sea. Thus, when ship crew management is satisfied with the competence of Indonesian seafarers, they tend to get positive results, such as brand attachment associated with the seafarers' country of origin. The results of this research support the findings of Hung & Lu, (2018), Ahn (2019), Ahn (2020), (Ahn & Back, 2019), Choi et al., (2017), Jo et al., (2020), which shows that Global Employability Competence improves the brand experience in seafarer crew management companies.

The impressive experience for ship owners when employing Indonesian seafarers has increased the level of acceptance of Indonesian seafarers working on these ships even higher. Related to this, the intellectual experience dimension is the central aspect that has the most influence on increasing the brand experience of foreign ship owners, so it becomes the main concern for managing foreign ship crews to continue to employ Indonesian seafarers. Most Indonesian seafarers have a high level of responsibility for preventing ship accidents. They are highly disciplined in maintaining their equipment and work equipment, thereby increasing the sensory experience of ship crew management. Ship owners were impressed with the high sensitivity of Indonesian seafarers in anticipating relatively dangerous events.

Most Indonesian seafarers have positive interactions with supervisors and seafarers and are oriented toward seafarers' work safety, thereby improving the behavioral experience of ship crew management. Ship owners experience strong feelings and emotions towards brands associated with the seafarers' country of origin. These affective stimuli help create a high level of acceptance for Indonesian seafarers when the recruitment process is a priority. Having a work safety culture, fostering positive interactions with seafarers from other countries, and seeing co-workers engaging in unsafe behavior, Indonesian seafarers intervene to protect their co-workers and themselves. A solid and highly emotional experience for ship crew management is a significant factor in increasing satisfaction for ship owners. It encourages shipping management to recruit Indonesian seafarers by maintaining the position of seafarers in their field of duty compared to seafarers from other countries. Thus, when the crew management gains behavioral experience through recruitment, the experience of employing Indonesian seafarers can increase the acceptability and feelings of the crew management. Furthermore, most Indonesian seafarers have high knowledge and expertise as well as continuous learning, increasing the intellectual experience of ship crew management. Shipowners gain experience with brands associated with the seafarer's country of origin, as the knowledge and expertise of these seafarer's help create a high level of acceptance with crew management when recruitment is a priority. The high intellectual experience of Indonesian seafarers increases acceptance from ship crew management because it accumulates valuable knowledge and experience for the organization on board. The valuable knowledge gained through this learning can then be transferred to other seafarers and the management of shipping activities so that continuous learning occurs. When shipping management gains intellectual experience through recruitment, experience in employing Indonesian seafarers can increase the acceptability and informal knowledge of crew management. The results of this research support the findings of McVeigh & MacLachlan (2019); Tsai & Liou (2017); Ahn (2020); Smith et al. (2020); Wang & Yeo., (2016); Jo et al. (2020), which shows that brand experience increases end-user acceptance.

The empirical data research results state that applying global employability competence cannot indirectly increase end-user acceptance through the role of government in the international shipping industry. Global competency in the form of work by standard operational procedures such as maintaining water cleanliness and shipping safety. In this case, the SOLAS (Safety of Life at Sea) Convention focuses more on regulations in the field of shipping safety than the MARPOL (Maritime Pollution) Convention, which regulates efforts to protect and overcome the marine environment from the threat of various pollution. Meanwhile, STCW (Standard of Training Certification for Seafarers) is a convention regulating seafarers' competency or expertise. Furthermore, the Maritime Labor Convention (MLC) aims to ensure seafarers' welfare worldwide. It provides standard guidelines for each country and ship owner to provide a good working environment for seafarers. Thus, based on these four rules, it is mandatory to ratify various conventions issued by world institutions from the International Maritime Organization (IMO), including ratifying the MLC convention, which was issued in the regulations of the Indonesian Minister of Transportation, Directorate of Maritime Transportation. The demands regarding global employment competency that Indonesian seafarers must possess must be by IMO regulations, so the government is obliged to adjust national competency standard regulations to become IMO standards. The results of this research support the findings of Daszuta & Ghosh (2018); Sydney, (2014); Berg et al. (2013); De Jesus (2022); Pike et al. (2021), which shows that Global Employability Competence encourages the government's role in organizing regulations related to international standard seafarer competency. Conversely, the government cannot influence end-user acceptability in shipping management. The policies and regulations prepared by the government have not yet ratified the IMO regulations, so foreign ship owners or ship crew management cannot recruit Indonesian seafarers because several competency standards have not been met according to global standards. In this regard, collaboration with IMO is a primary indicator that Indonesian government regulations are not yet synchronized with international rules. There are still many regulations in Indonesia that are not in sync with international regulations, especially in the maritime industry. Apart from that, ratification of international conventions is still minimal, so several factors still make

the protection of ship crews weak in Indonesia. The results of this research support the findings of the (Elisabeth, 2018); (Nursanto & Imigrasi, 2019); (MT SAGALA, 2021); (Mallam & Lundh, 2016); (Kostidi et al., 2021), which shows that the role of government policy does not increase end-user acceptability in the international maritime industry.

The empirical data research results show that global employability competence can indirectly increase end-user acceptability through interfirm collaboration in the shipping industry. The operating in the organizational environment dimension is the central aspect that influences increasing the competence of seafarers, so it becomes the main concern for seafarer agents to promote Indonesian seafarers to foreign ship crew management. The responsibility of the company agent is to maintain standardization of seafarer competency by paying attention to the quality of Indonesian seafarers on board European Union ships. They are provided with training and education by the official international certification of the STCW Convention following Directive 2008/106.

Each country has differences in seafarer training, education, and policies due to differences in the laws that apply in each country. However, these countries aim to improve the quality of seafarers. Global standardization in shipping will continue to be updated based on developments in the modern era, especially in technology and information. The STCW Convention plays a vital role, and the responsibility for implementing the STCW Convention lies with the seafaring crew company. Every country that accepts the STCW Convention as an integral part of its national jurisdiction must follow the rules following the IMO. Shipping standardization is also being developed at the national level, with the main focus being the quality of human resources. These seafarers have the ability, training, education, and experience in officially certified shipping. This research is supported by the research results of Ghosh et al. (2017), (McLaughlin, 2015), and Ghosh et al. (2014), which shows that Global Employability Competence increases inter-firm collaboration in the international shipping industry. Crew agent companies must follow and comply with the STCW Convention. Therefore, increasing competency and new knowledge for Indonesian seafarers encourages crew companies to follow STCM rules, which are IMO standards.

The implementation of inter-firm collaboration increases end-user acceptability in the international shipping industry. The crew agent company, a training institution for seafarers, coordinates and collaborates with foreign ship crew management companies regarding seafarer competency certification, which must comply with IMO standards so that foreign-flagged ship owners can employ seafarers from Indonesia. The STCW has become the primary basis for companies providing maritime education and training for prospective seafarers. It sets training standards that educational and training academies for seafarers must meet. Competency standards must be accredited by an IMO focusing on management, operations, and support responsibilities. This is vital in the shipping system, which consists of competencies every seafarer must possess. Seafarers will be recognized as legal if they fulfill all the qualifications stipulated in the shipping policy. So that Indonesian shipping can compete with other countries because the quality of seafarers has official certification with applicable policies.

The Maritime Education and Training Academy, which STCW has accredited, creates high-quality seafarers in the shipping industry. Seafarers are trained to play an active role in every aspect of sailing. Seafarers are given training and education while still focusing on the character of seafarers in their work. Seafarers must have opportunities in the future, not only focusing on one thing, but they must be critical in dealing with certain things, especially problem-solving and decision-making. Training and education academies must collaborate with company agents and ship owners. Collaboration between companies can influence the shipping industry. This is by the results of research by (Rowihil & B. A. Farag, 2021), (Kim et al., 2021), (Heirs & Manuel, 2021), (Demirel, 2020), and (Phewa, 2021).

An essential role in the development of the shipping industry is global employment competence, brand experience, company cooperation, and the role of government. The results of this study indicate that Global Employability Competence significantly influences end-user acceptance, which is mediated by brand experience and inter-company collaboration in foreign ship crew management. This research is a new-order research model that focuses on crew management. Aspects of seafarer competency are critical thinking, information technology, decision-making, performance, multi-tasking, character, and culture.

6. Conclusions and Limitations

The results of this research provide information to shipping management that seafarers who will be recruited by ships must have skilled competencies on a global scale and consider inter-firm collaboration and brand experience so that ship owners have a high level of acceptance of seafarers from Indonesia. The competency of skilled seafarers on a global scale required by shipping management is the dimension of operating in organizational support where maintenance activities are carried out in shipping operations. The factor of scheduled engine maintenance is significant to maintaining sustainable operational activities of shipping vessels when navigating the high seas where weather and storm conditions are unpredictable and extreme. Therefore, working by standard operational procedures and prioritizing urgent tasks are the main factors influencing sensory experience satisfaction. Hence, shipping management views Indonesian seafarers as having a high responsibility to prevent accidents at sea. Then, the ship owners are satisfied with the competence of Indonesian seafarers. Hence, they tend to get positive results, such as brand attachment associated with the seafarers' country of origin. Indonesian seafarers are assessed based on intellectual experience, which can provide opportunities to be accepted on ships from other countries. Mediators that can influence Global Employability Competence and end-user acceptance are brand experience and collaboration.

The limitation of this research is the cross-sectional design analysis, which focuses on future research. Future research is expected to provide novelty in the form of developments in seafarer recruitment from time to time. Apart from that, this research only focuses on seafarers in the merchant sea who are different from seafarers in the fishing industry. Therefore, further research is needed to implement an approach to fisheries industry seafarers that focuses on differences in the results of different marine industry seafarers.

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