

RESEARCH ARTICLE

Social sustainability for health and well-being in port areas: A general framework proposal with a social value approach

Patrizia de Luca  | Giorgio Valentinuz 

Department of Economics, Business,
Mathematics and Statistics, University of
Trieste, Trieste, Italy

Correspondence

Patrizia de Luca, Department of Economics,
Business, Mathematics and Statistics,
University of Trieste, Via Valerio 4/1, 34127
Trieste, Italy.

Email: patrizia.deluca@deams.units.it

Abstract

Sustainability is becoming increasingly critical in the port business, which generates economic, environmental, and social impacts in and around port areas. This study, focusing on social sustainability, intends to investigate the potential creation of multi-functional social health and well-being facilities to benefit the staff of the port community. Qualitative research was performed in port areas in Italy. A thematic analysis of textual data obtained from interviews and secondary data was also administered. The original contribution of this study, which proposes a framework with different potential interventional areas, comes from the suggestion for an economic-financial analysis with the social return on investment. This method permits consideration of valuable aspects for evaluating the potential social value of the multi-functional social health and well-being facility.

KEYWORDS

health, Italy, port area, social sustainability, SROI, well-being

1 | INTRODUCTION

From different perspectives, sustainability is becoming increasingly critical in any human activity. In recent years, the environmental, social, and governance (ESG) parameters have acquired growing importance in disclosing and measuring the commitment of companies and public operators to improving their carbon footprint and the positive effects on the different stakeholders and the community. These parameters are connected to the economic and financial perspectives and can be considered risk management tools. In particular, with the green deals and the next generation UE actions in the European Union, sustainability has assumed a central role in public and private decisions. Transportation is one of the fields in which environmental aspects assume a relevant role. However, the social dimension of sustainability in the port business, which involves many people, companies, and public operators, is relevant to the impacts in and around port areas.

Ports represent high-risk work environments because of the complex handling operations performed daily and the potential exposure of workers to noise and pollution, psycho-physical stress, the transmission of contagions, bio-terrorist attacks, and other latent risks from different sources. The use of technology in the health sector is becoming increasingly relevant, and digital transformation can enable—among other things—the creation of new processes, better knowledge, and faster and more professional access to information (Abbate et al., 2022).

The safety culture in port workplaces has grown significantly in recent years in many countries (Antão et al., 2016; Berg, 2013; Naevstad, 2017). However, a broader vision capable of integrating health and safety aspects in a logic of social sustainability within a system generating welfare and social value for all stakeholders still seems to be missing.

To respond to the needs and expectations of stakeholders operating in the port area, the authors set out to analyze the potential of a

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structure that—articulated on different levels of complexity and broader objectives—could provide support for the health and well-being of people. This multi-functional social health and well-being facility (MSHWF) can improve “workers” physical and psychological health, promoting their overall well-being and attractiveness to new human resources due to increased commitment. Its adoption can contribute to reducing health and social costs through prevention and fostering synergetic policies among employers for compliance with health and safety regulatory obligations.

This study focuses on social sustainability and intends to investigate the potential creation of MSHWF to benefit the staff of the port community. With this goal, this study addresses the following questions to contribute to the understanding of related issues meaningfully:

- What is the level of awareness and personal perception concerning the issue of social sustainability developed by actors involved in a port area?
- Supposing to activate an MSHWF in the port area, what could be the advantages and disadvantages of such a service?
- How could social benefits be measured?

This study comprises three parts. The first part presents the theoretical background and the research method. The second part of the study reports the research results of field “experts” in-depth interviews used as the methodological approach (Gustafsson, 2007; Keceli, 2011). The third part presents a feasibility analysis of an MSHWF in a port area using the Social Return on Investment (SROI).

2 | LITERATURE REVIEW

2.1 | The ports' evolution

In recent decades, ports have experienced relevant changes at macro- and microeconomic levels, leading to a significant widening of strategic and competitive areas (Brooks & Cullinane, 2006; Ferrari & Musso, 2011; Ferretti et al., 2017; Musso & Ghiara, 2008). The increased relevance of public-private partnership (PPP) caused ports to be considered hybrid organizations: ports act at the intersection of public and private domains (Koppell, 2006; Secinaro et al., 2019). Indeed, throughout the 1990s, several port reforms resulted in new organizational frameworks and governance mechanisms for most European countries. The main governance models are the private port, landlord, tool port, and public port (Ferrari et al., 2015). The most commonly adopted model for utmost European countries, the landlord model, stipulates that the public port management entity, the Port System Authority (PSA), is responsible for the planning and management of port areas, intending to ensure traffic growth and social and economic wealth, without directly carrying out commercial activities, which are reserved instead for private companies (Ferrari et al., 2015).

This evolution has introduced modern ports into multi-actor contexts and redefined the different stakeholders' roles. Within a port, stakeholders consist of two different groups of people. On the one hand, some stakeholders directly use, regulate, maintain, and control the port, such as port authorities and, more broadly, local and national government; on the other hand, some operators indirectly benefit from or are otherwise affected by the port's activities, such as terminal operators (including owners and investors), cargo owners, shipping firms (shipowners), inland carriers (including logistic firms, trucking and rail transport firms), global and supra-national regulators, society/citizens, workers/labor (internal customer). (Dooms et al., 2013; Duru et al., 2020).

Additionally, objectives and activities are expanding, with a new focus on marketing, information and communication technologies (ICT), customer relationship management (CRM), and above all, growing attention to corporate social responsibility (CSR) and sustainability.

2.2 | The literature on the social dimension of port sustainability

In the academic literature, some of the most studied topics regarding ports and their impact on the environmental and local areas and communities are: (a) underwater noise pollutions (Bittencourt et al., 2014; Erbe et al., 2020; Kellett et al., 2013; Merchant et al., 2012); (b) airborne sound emissions to be disturbing for citizens (Badino et al., 2016; Bernardini et al., 2019; Borelli, 2019; Fredianelli et al., 2020; Fredianelli et al., 2021; Fredianelli et al., 2022; Nastasi et al., 2020; Schiavoni et al., 2022; Vukić et al., 2022); and—since longer—(c) air pollution and other pollutants (Bailey & Solomon, 2004; Kotrikla et al., 2017; Maragkogianni & Papaefthimiou, 2015; Mueller et al., 2023; Saxe & Larsen, 2004; Tichavska & Tovar, 2015; Wang et al., 2019).

Regarding sustainability, the port business generates different economic, environmental, and social impacts in and around port areas. In this study, the social dimension of sustainability is the focus. The social dimension of sustainability is widely accepted as crucial, but it is still poorly theorized and unclear in theory and practice (Dillard et al., 2009; Vallance et al., 2011; Woodcraft, 2012).

This study recognizes that the social dimension, related to labor, impacts the community, people and culture (Duru et al., 2020, p. 173), considering that “the goal of social sustainability is to improve the quality of life of people in port regions by providing higher employment, better educational opportunities, and better living standards” (Stanković et al., 2021, p. 4). According to this perspective, social sustainability contributes to better life quality for people by sustaining port facilities to meet socio-economic priorities, such as work opportunities, education for employees and communities, and improving the social quality of the area around ports (Narula, 2014).

The literature is not particularly rich about the specific social dimension in the port context and is far less developed than the other

two dimensions of sustainability (i.e., environmental and economic). “Previous research remarkably focused on the environmental aspects of sustainability (65%) and sometimes modestly integrated the economic (14%) and social (3%) aspects. Similarly, only 17% of studies covered the TBLs (triple bottom lines, AN) of sustainability including technical reports.” (Alamouh et al., 2021, p. 12).

In recent years, several studies have focused on developing a framework to classify actions and measures taken by ports. These studies aim to establish composite science-based indices for monitoring different dimensions of sustainability, including social sustainability. (Alamouh et al., 2021; Lim et al., 2019; Stanković et al., 2021). Similarly, Ashrafi et al. (2020) aimed to synthesize various research perspectives for corporate sustainability drivers in maritime ports; they use the lens of stakeholder theory, offering global case examples. All these studies use literature review and secondary data analysis as research methods.

Other studies contributed differently to this research field without a specific citation of the social dimension of sustainability. Regarding labor and social stability, it can be highlighted a study based on a two-stage process that combines quantitative and qualitative data from ports and unions around the world focusing on social conflict because it is “still a key determinant of the competitive (dis)advantage of firms and the terms and conditions of labor” (Turnbull & Wass, 2007, p. 584). Some other articles concentrate on seafarers' welfare and mental health. A study reviewed published and unpublished information on seafarers' mental health to provide a window into the current status of seafarers' mental health and suggest an industry-wide effort (Iversen, 2012). Sampson and Ellis (2019) also contributed new data to the current debates on seafarers' welfare and mental health using gray literature analysis and qualitative and quantitative research.

This study intends to contribute to filling the gap in the literature and the operational reality with research on the specific social dimension of sustainability, targeting the potential development of a MSHWF in a port area, its perception, and feasibility analysis, using a SROI approach.

2.3 | The literature on the social return on investment approach

Measuring social value is a developing science, and several frameworks have been proposed accordingly (Taylor & Bradbury-Jones, 2011). One of the most common quantitative metrics of social, economic, and environmental value companies create is the SROI. This measure was developed in 1996 by the Roberts Enterprise Development Fund (REDF, 2001), with the “triple bottom line” (TBL) approach: social, environmental, and financial. It tries to gauge the social impact of a company in financial terms as the difference between (a) the social impact value (the results after the action less an estimate of results would have happened nevertheless) and (b) the initial investment amount, which is then divided by the initial investment amount.

SROI was intended to be a method that had to be implemented when measuring socio-economic and environmental impact in the value creation of a specific project of a firm, having the advantage of combining cost and benefit analysis (CBA), stakeholder engagement, financial proxies, and project improvement (Maldonado & Corbey, 2016).

Comparison between different costs and benefits that can occur at different periods—as in any project valuation—should be discounted after adjusting for inflation (Hutchinson et al., 2019). Practical challenges to its use are related to the difficulties in identifying and evaluating outcomes in monetary terms and verifying the process of reporting information. A qualitative method suggested by the literature is the analytic hierarchy process (APH), a multicriteria method that permits ranking a set of alternatives concerning an overall goal broken down into criteria (Salmeron & Herrero, 2005).

The SROI approach is not grounded in welfare theory but is pragmatic, which rises from social value calculation and is frequently employed by consultants. It “is an outcomes-based measurement tool that helps to understand and quantify the social, environmental, and economic value being created from an intervention” (Rhiannon & Lawrence, 2021, p. 635).

The Guidebook on Best Practices in Public Health (OECD, 2022) suggests that the economic evaluation assessment in the health sector for capital projects should be evaluated using the CBA.¹ A similar approach, among others, is considered also by Ananthapavan et al. (2021) and Glied and Robinson (2023). However, SROI has started to be explored to achieve value for money and analyze social prescribing interventions as it considers “well-being” impacts in the analysis (Jones et al., 2020). Rhiannon and Lawrence (2021) propose a guide to choosing between SROI and CBA in public health decisions.

The first academic research to use SROI in the health and social care field was by Nicholls et al. (2009). A systematic review of academic contributions to SROI methodology in health and social care programs was conducted by Hutchinson et al. (2019) and Banke-Thomas et al. (2015). Both reviews found limited use of SROI methodology in the health and social care sector.

Social outcomes should represent a change in well-being for the impacted individuals and must not be confused with output, which is the conclusion of an activity. The proposed metric can assist in defining the appropriate mission of a specific firm/project and assessing its economic performance and social impact. In this field, metrics can be highly subjective because they cover intangible aspects evaluated subjectively by different stakeholders, like soft outcomes that pose a measurement challenge perceived by many as complex to overcome (Bertotti et al., 2011). Another aspect of analyzing with care is the discount rate, particularly for long-term projects, because the longer the time, the lower the present value. In the SROI analysis, the discount

¹Despite the first formalization of the CBA in 1936 (Arnold, 1988), the use of CBA started to be applied from the 1950s onwards in connection to the new welfare economy. In the 1960s, it was developed in social CBA techniques (Little & Mirrlees, 1974) that were initially used by UNIDO. In more recent years, considering the limits of the neoclassical welfare economics paradigms, the behavioral CBA was introduced to take care of peoples' non-rational behavior. In health economics, the CBA was employed first by O'Reilly et al. (1994).

TABLE 1 Respondents' roles and organizations to which they belong.

Role of interviewees (in alphabetical order)	N.	Organizations involved in the research (in alphabetical order)	N.
Business or health consultant	2	Cooperative, consortium, corporation, or social enterprise	12
Editor-in-chief of port magazine	1	Independent advisors	2
Employee of a cooperative, consortium, or social enterprise	3	Port system authorities	5
Member of the board of a cooperative	1	University	1
Port system authority manager	2		
President of a cooperative, consortium, or social enterprise	10		
Scientific coordinator of a laboratory of economic and political geography	1		
Total	20		20

rate should be the social rate of time preference (for example, the country risk-free rate) that differs from discount rates used in finance to evaluate projects (Pathak & Dattani, 2014).

3 | RESEARCH METHODS

This study has been conducted in two steps: (a) a study in a port area for the analysis of the context and stakeholder expectations regarding the potential creation of a multi-functional social-health facility (MSHWF) to benefit workers in the port environment; (b) a proposal of a feasibility analysis model.

As regards the first step, after an initial desk research phase, with a literature review and analysis of the port context, we conducted field research collecting secondary and primary data.

Primary data were collected through 20 in-depth, single, or repeated interviews for the same subject, with several qualified field experts working in the Port of Trieste, in other Italian ports (Genoa, Livorno, Ancona, and Naples), and from other stakeholders, such as local public health authorities, and social cooperatives.

Table 1 lists the respondents' roles and the organizations they belong to. To maintain anonymity and avoid easy association between the role and its organization, each list in the table is alphabetical.²

The interviews, each with an indicative time between 40 and 90 minutes, were conducted from October 2020 to June 2021, and an interview guide was prepared with the following three sections: (a) in your opinion, what is the current situation in the port area regarding social sustainability? (b) if it were possible to activate a social health service in the port area, what characteristics should this service have? (c) what could be the advantages and disadvantages of such a service?

All the interviews were audio-recorded and transcribed verbatim, resulting in about 200 pages and 100,000 words. Following the literature on qualitative research (Corbin & Strauss, 2008; Yin, 2016), a thematic analysis was conducted on the textual data obtained from primary (interviews) and secondary sources (reports and industry publications) (Braun & Clarke, 2006). Researchers read and codified

transcripts, following the phases of familiarizing themselves with the data, creating initial codes, grouping codes into themes, reviewing and revising themes, and writing narrative text. Coding was mainly done ex-post, with a multi-stage iterative process. Then, a feasibility analysis of the MSHWF was performed based on the primary and secondary data findings. The research results were presented in two steps, namely (a) primary and secondary data analysis in a narrative form and (b) feasibility analysis. The results of these two steps are explained in the following paragraphs.

Regarding the second step, the proposal of a feasibility analysis model, the authors used the SROI approach, which combines economic and financial aspects to social benefits to implement the traditional ratios and profitability measures. The authors propose an evaluation framework that identifies the most relevant drivers for a wide-ranging use as a general reference scheme without specific data.

4 | CONTEXT AND RESULTS

4.1 | Step 1—A study on a healthcare and well-being facility in a port area

4.1.1 | The situation in the main Italian ports

The significant situation of land-based port workers' health surveillance and injury management was analyzed in some Italian ports. The first three Italian ports for the 2021 volume of goods handled (Trieste, Genoa, and Livorno) and the other three ports in the first 15 positions in this ranking (Venice, Naples, and Ancona) were considered.

To this end, the websites of these ports were looked at first to verify the existence of specific content related to the social dimension of sustainability. The data collected shows a situation in the dawning phase, characterized by occasional initiatives and reflections. However, translating this interest into daily commitment and a coherent strategic vision proved challenging. In particular, at the moment of the analysis, only the Venice Port Authority website had a specific section dedicated to sustainability, articulated—according to the TBL approach—in environmental, economic, and social dimensions. On the Port of Naples website, various initiatives are mentioned, such as participation in the “Permanent Forum for Social Responsibility in the

²The study was carried out following the ethical guidelines laid down by the Research Integrity Policy of the University of Trieste. Researchers requested participants no personal details. They obtained informed consent orally.



Mediterranean” and the promotion of debates dedicated to CSR within CSRMed, the Mediterranean Exhibition of Shared Social Responsibility. In other cases, the emphasis was preferably placed on environmental sustainability issues. For instance, a section called “Green Port” was found on the website of the Port of Genoa, a presentation of the “European Project Adrigreen” was presented on the website of the Port of Ancona, and sub-sections dedicated to safety and environmental issues were provided on the website of the Port of Trieste. For the Port of Livorno, a document drawn up in 2018 containing the analysis of energy-environmental sustainability is available on the website. Hence, it can be perceived that the focus on the issue of social sustainability is growing gradually. For example, Port of Livorno’s Strategic Planning Document lists the economic, social, environmental, and technological development framework as macro-areas of interest on its website. In 2021, the city of Genoa and its port—as reported on the website—hosted a national event called “Stati Generali Mondo Lavoro del Mare” (the General States of the Maritime Labor World), during which welfare, sustainability, and the environment were also discussed.

4.1.2 | In-depth interviews

Testimonials offered opinions regarding the presence of social health facilities in the port, along with assigned tasks, financing forms, and operational methods used to deal with emergencies. A thematic analysis has been developed in line with the qualitative research (Yin, 2016). Textual interview data have been codified *ex-post* throughout a coding grid to create general content categories, adopting a multi-stage iterative process.³

The data collected revealed a holistic picture from a regulatory perspective and a rather varied situation regarding managerial aspects. Some critical topics from different interviewees are presented and commented on below. A brief overview of the core findings of this research is presented in Table 2, where the category of concepts, the main topics and some examples of meaningful sentences from original field notes (but translated from Italian) are reported (Yin, 2016).

Somebody highlighted critical issues, particularly failures, and new perspectives regarding port labor regulation and human resources management. The evidence of operators in the field offers valuable insights. For instance, in port operations, employees were navigating the complexities of a burdensome social scenario resulting from multiple failures, particularly within cooperative frameworks. A first attempt to recover some elements for regulating and overcoming the problems of the extreme fragmentation of labor regulation was made by creating a labor agency. Subsequently, there is a need to transform people handling sacks of goods into multi-functional workers through

training and adopting protective equipment. Another point of view underlines the port’s vision as a community of workers who carry out essentially the same operational cycles regardless of the type of employer. However, this community has broken down since the reform divided the port into different companies and the workers among employers of different juridical forms.

In Italian ports, the responsibility for health and emergency management is spread between the PSA and the companies operating within the port area, following national legislation, special regulations, and specific protocols of individual ports (Satta et al., 2019). In particular, health surveillance is entrusted to occupational physicians, who are present at each terminal operator, while emergencies are managed in the first instance by workers trained in first aid techniques, from basic life support (BLS) to the use of defibrillators. In more complex situations, an ambulance with external help is called in. There is no permanent health facility to support the surveillance activities of occupational physicians in the ports considered in this study. Even when these structures were formulated, they were progressively abandoned over time. During the period of field research, the issue was very topical following the coronavirus disease (COVID-19) emergency.

As suggested by the interviewees, the homogeneous vision of the port work is re-emerging because of particular needs, such as a first aid service. This service would guarantee a higher level of safety for workers, who would then be able to use the outpatient port clinic for any minor health problems they might have.

Many parties desired to activate an MSHWF in the port, but the costs were deemed unsustainable for the PSA. Indeed, the Italian PSAs must follow the guidelines fixed by the Ministry of Infrastructure and Transport for the sources of revenues. The port charges can be partially influenced by negotiations among port users and other stakeholders; in this context, an MSHWF could be considered a facility for which the PSA can charge the port operators as a service provided directly, influencing the port’s competitiveness.

As highlighted in the interviews, the suggested MSHWF could raise the dialectic between the stakeholders, such as PSA, private companies’ workers, and trade unions. Moreover, a lack of prompt intervention emerged in some ports, such as Genoa, Ancona, and Livorno. The main criticality seems to be linked to the high costs for a single stakeholder compared to the limited number of serious accidents every year.

At the time of the study, only two ports, Venice and Naples, had a first-aid station. In Venice, the service is entrusted to a cooperative specialized in medical transport. The service, financed by the port’s private companies, is provided 24 hours a day, 7 days a week, under the supervision of at least one nurse specialized in first aid techniques and a rescue driver. In the port of Naples—from 8 am to 8 pm, 7 days a week—an ambulance is equipped with a driver, a trained rescuer, and a professional nurse who can be contacted through the public emergency phone number. However, statistics reveal that the ambulance is rarely used. In the other ports, the discussion on this issue, solicited by the workers, seems to be at a standstill. Immobilizing a public health service ambulance at the port

³A first researcher independently worked out the open coding phase, with selection of parts of the text and assignment of the main topics, and the phase of organizing the codes into general categories (category of concepts). A second researcher then carried out an independent check on the identified topics and codes. The final definition of the interpretative framework presented here was jointly arrived at by accepting some marginal changes.

TABLE 2 Main critical aspects arising from interviewees.

Category of concepts	Main topics	Meaningful quotes: Some examples*
Port work critical issues	Port workers' organization and management	<p>“The failures of the cooperatives were added to a labor regulation based on extreme fragmentation.”</p> <p>“We tried to recover some elements for regulating and overcoming these problems with patience and difficulty. The first was the creation of a labor agency [...] Then, we provided ourselves with protection and training instruments because we had to take workers who were used to pulling sacks, and therefore to manual work, and try to make them multi-purpose workers.”</p> <p>“Every day, about 2000 dockers do the same work in an area of 700 hectares. It is like a big factory, which has this homogeneous character. This community has broken down since the reform divided the port into different companies and the workers among employers of different juridical forms.”</p>
	Port workers need	<p>“However, the homogeneous vision of the port work is re-emerging because of some needs, for example, a first aid service.”</p> <p>“First aid is an emerging need. It occurs every time there is an accident. It is necessary to wait for an ambulance for a long time because the cost of an ambulance is not sustainable for a single cooperative [...]. Considering that all these people contribute to the same operational cycle, in which risk rates are homogeneous, you should give a standard answer to the common need.”</p>
Health and well-being issues	No permanent health facility	<p>“There is no permanent health facility to support the surveillance activities of occupational physicians in the ports. Even when these structures were formulated, they were progressively abandoned over time.”</p>
	Level of safety	<p>“Such a service would guarantee a higher level of safety for workers, who would then be able to use the outpatient port clinic for any minor health problems they might have because eventually—with the health professionals there—the clinic would also become a point of reference for asking for information.”</p> <p>“A health service can reduce the effects of sunstroke or save workers' lives. There are many types of accidents in ports; when we talk about this topic and look at the statistics, we realize that too much time has passed since something serious has happened without the problem being addressed.”</p>
	Stakeholders relationship	<p>“It is a real problem of vital importance. It introduces elements that give rise to a dialectic between the public institution that oversees the port, the private companies with their prerogatives and their profit rationale, the workers, and the role of the trade union: it is a fascinating topic.”</p>

*The sentences quoted here have been translated from Italian.

usage would only reduce service quality for citizens living in the surrounding area (i.e., the number of ambulances is defined based on the number of inhabitants).

4.1.3 | Proposals

Based on the indications from the in-depth interviews, four different areas of intervention could be identified, to which an MSHWF within a port area could contribute (refer to Figure 1).

Medical coordination for health surveillance

At the first level, the MSHWF would be called upon to assist the occupational physicians engaged in health surveillance activity. As foreseen by Italian law, occupational physicians are included in specific lists at the Ministry of Labor, Health, and Social Policies. They are selected by the company wishing to use their services as they can operate—in agreement with the entrepreneur—as employees or collaborators of an external public or private structure, but also as freelancers or as employees of the same employer. Health monitoring, which is entirely the responsibility of the employer, includes a broad set of activities: (1) assessment of suitability for a specific task;

(2) periodic medical tests—at least once a year—to check the workers' health status; (3) examinations to be administered in different circumstances (change of tasks, resumption of work after a prolonged absence due to illness, termination of employment in the cases provided for by the regulations); and (4) health tests requested by the worker (in case of health or occupational hazards).

Medical checks involve various tests (clinical and biological tests, diagnostic investigations), including those aimed at ruling out alcohol dependence or psychotropic and narcotic substance addiction. Therefore, the MSHWF could offer a physical space where the occupational physician could implement the foreseen controls and checks. In the same structure, the examinations prescribed by the occupational physician (e.g., blood test, cardiogram, spirometry, toxicological test) could be carried out. This initiative can save time and costs considerably because a blood test typically takes 20 minutes, while the same examination—carried out at an external facility—could involve 2 or 3 hours of work abstention.

First aid for non-serious injury

At the second level, the MSHWF could additionally perform first aid in case of non-serious injury. Working life in a high-risk environment, such as a port, is characterized by contusions, cuts, abrasions, sprains,

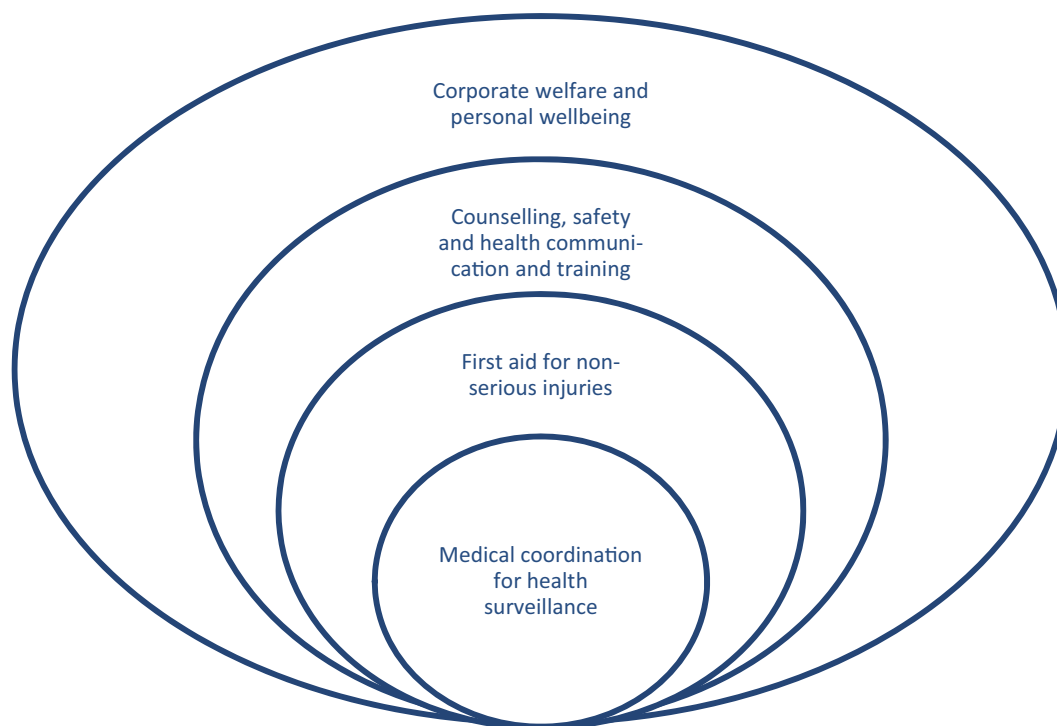


FIGURE 1 A scheme of health and wellbeing service implementation levels. *Source:* Authors' elaboration.

and minor burns, which do not necessarily require access to the hospital emergency unit if a professional staff timely medicates the injured person. In the most critical cases, staff members working at an MSHWF may perform an assessment and initial intervention and then accompany the injured person to the hospital or request an ambulance. Even in extreme situations, the assessments offered by professionally trained staff members can prove helpful for the medical staff arriving on site in the ambulance.

Counseling, safety, and health communication and training

Further, the MSHWF could contribute to counseling, safety and health communication and training. Italian law foresees the presence of first aid officers in every company. These officers would be trained workers responsible for implementing internal first-aid measures and activating first-aid interventions. Under the National Health Service, the training of workers designated for these tasks must be undertaken by medical personnel, assisted by nurses or other specialized personnel. The port's health personnel could also be involved in campaigns to prevent cardiovascular risk, smoking, and excessive alcohol consumption and promote physical activity and a healthy diet. Activities of this kind could utilize specific tools—blood pressure tests, cholesterol surveys, and the definition of the body mass index—to calculate the cardiovascular risk for individuals aged 40 years and above.

Other initiatives could address the health and mental well-being of port workers and seafarers (Sampson & Ellis, 2019), who are exposed to an activity that is often a source of psychological and physical stress.

The MSHWF could also represent an “informal” point of reference for workers wishing to acquire information and advice on health and prevention issues. For example, rapidly discerning whether a migraine results from a trivial heat stroke related to prolonged exposure to sunlight, or the principle of cerebral ischemia, can be vital. In addition, in epidemiological emergencies and biological risks, the healthcare staff could offer workers useful indications on hygienic and behavioral norms to limit the circulation of the pathogen and reduce the risk of infection. Besides, healthcare personnel could administer swab tests and oversee vaccination campaigns.

Corporate welfare and personal well-being

At a more general level, the MSHWF could broaden the focus to adjacent subjects, such as welfare, wellness, and social care. In this case, the MSHWF could make other professional figures available to port workers, such as a physiotherapist who could be called upon to manage postural gymnastic activities for workers moving heavy objects. Other initiatives could also be linked to the welfare area, such as corporate kindergarten and parenting support services for port workers with young children or job placement for disabled and disadvantaged persons.

4.2 | Step 2—Feasibility analysis using social return on investment

The specific field of study that evaluates investment projects is corporate finance. In the case of the MSHWF, identifying potential costs is simple, but it does not seem easy to determine prices and revenues

that can generate the activities mentioned above. This fact limits capital budgeting techniques and investment decision criteria, such as net present value (NPV) and internal rate of return (IRR). However, these criteria only account for cash flow-based effects of value creation and cannot account for non-financial effects.

The suggested project can be included in the Social Value perspective. Its definition, proposed by the International Valuation Standard Council, is: “Social Value’ includes the social benefits that flow to asset users (social investment) and the wider financial and non-financial impacts including the well-being of individuals and communities, social capital and the environment, that flow to non-asset users” (IVSC, 2021, p. 4). Many other definitions can also be found in the literature, but the one stated above seems more connected to the finance and valuation framework. The monetary benefits to investors in the MSHWF and its users are limited and represent just a tiny portion of the social value, similar to other not-for-profit entities. Public funds can support projects that offer social benefits—at least partially—to permit a balance between costs and revenues. In the SROI approach, costs are partially covered by the payments for services offered to companies that operate in the port area and, to a certain extent, could be paid by end users (the workers). The fees, however, impair profitability from a business economics perspective, at least considering the idea of offering the worker services at a price that could be lower than the market price to incentivize the use of the facility. With this approach, employees and employers can acquire intangible (social) benefits while experiencing difficulties in employing traditional metrics to evaluate economic profitability.

The obstacle to evaluating the value creation of social investment in terms of criteria and measures used in finance does not imply the impossibility of evaluating its impact on—at least—particular business performance using the collection of qualitative or quantitative data (WBCSD, 2015).

SROI differs from ROI calculated for many businesses and projects. The latter (Equation 1) employs the operating profit after tax compared to the investment, whereas SROI (Equation 2) compares the present value of the net benefits (after selecting the outcomes to measure and value) to the investment

$$\text{ROI}_{\text{net}} = (\text{Net operating profit after taxes}) / \text{Investment}. \quad (1)$$

$$\text{SROI}_{\text{net}} = (\text{Present value of net benefits}) / \text{Investment}. \quad (2)$$

Following their suggested pattern, the project under our analysis should employ SROI to be evaluated because of local relevance, different local stakeholders facing costs and benefits, and relevant information at the local level.

This study tries to identify the primary key elements of the investment (not only in terms of monetary benefits based on cost reduction) for companies operating in the harbor in a small/medium size city, where most of the health facilities are already present in the urban area. The Authors followed the Principles of Social Value (Social Value International, 2021) to identify the relevant social outcomes produced by the MSHWF project. These principles are an adaptation

of the original international principles developed by the International Association of Impact Assessment (Vanclay, 2003). The eight principles (initially seven) provide the fundamental building blocks to reflect a broader definition of value and are social accounting principles used broadly in practice. Table 3 presents the application of SROI principles to the case presented in this study.

The use of SROI—which often anchor definitions from the Principles of Social Value proposed by Social Value International—requires an approach in six stages: (1) fix the scope of the analysis and identify the stakeholders affected by the activity, (2) map outcomes, (3) evidence outcomes and attribute them a value, usually employing financial proxies and scenario analysis, (4) establish impact (assessing impacts causality), (5) calculate the SROI, and (6) reporting (to share findings with stakeholders).

5 | DISCUSSION

Once implemented, the MSHWF would benefit operators, workers, and the local community. First and foremost, it would allow considerable savings on time needed for some activities, such as blood tests, diagnostic investigations, and minor medications. Given that the charges for these services usually fall on the employer, it is reasonable to assume that companies involved in the project would be able to limit the costs associated with emergency and health surveillance activities. Furthermore, this solution would make it possible to generate social value by involving a plurality of stakeholders and actors within and around the port in a joint path. An initiative of this kind could be proposed as a pilot project to experiment with a network approach. If successful, it could be extended to the relations among companies (cooperative and non-cooperative) gravitating around a port and backport system. The initiative would strengthen the relationship between the port and the city based on community health and well-being.

The obstacles to carrying out the project can be categorized into three types. The definition of a method for cost allocation among the actors involved represents the first type. This mechanism could be simple and intuitive on paper but capable of generating friction situations in case of manifest imbalance in the proportion of services provided. The second puts into action the relationship between public and private. A project of this kind requires strong sponsorship by the PSA and implies constant coordination with the health authority. Sole formal support and an unclear distinction of roles and responsibilities could generate overlaps and misunderstandings instead of mutual collaboration. The third type regards the possible competition with private health organizations, which already offer service packages in health surveillance and health promotion in the workplace.

In summary, managing the strict health aspects of a project could generate conflict situations, while agreement on well-being (i.e., psychological and relational) and corporate welfare issues should be easier to achieve. Therefore, a project capable of developing the theme of social sustainability, following the WHO's directive of ensuring “a state of complete physical, mental and social well-being” (WHO, 2020,

TABLE 3 Main drivers used in the SROI forecast.

Principles	Description of the MSHWF project	Key elements
1. Involve stakeholders	Identify stakeholders that have to be involved	Port System Authority Companies that operate in the port Workers Regional Health System
2. Understand what changes	Identify the positive and negative outcomes	Improvement of the services offered compared to the existing: <ul style="list-style-type: none"> • Prevention • First aid • Training • Well-being Create a network of collaborations between entities operating in the port area with the creation of synergies Reduction of time and timeliness of the provision of services Potential friction with the regional health service for possible “competition” and loss of control and coordination of processes Improvement in the health and lifestyle of workers Reduction of individual and social costs of health troubles
3. Value the thing that matters	Define financial proxies to evaluate benefits that are important (SROI approach)	Reduction of working hours lost for visits and minor urgent health interventions Reduction of days/hours of work lost thanks to prevention Better level of attention to health and correct lifestyles with organizational and economic impacts (cost reduction) Offer of nursing services for the benefit of workers at subsidized rates, with potential improvement in the balance between work and family times (saving of costs for families for the service and for the minor time spent, reduction in potential absenteeism for companies) Reduction of agency costs among stakeholders (challenging to identify, but a stakeholder meeting could contribute to identifying and sharing critical drivers)
4. Only include what is material	Identify the outcomes which must be included because they could be relevant or significant	As above
5. Do not overclaim	Identify only the additional value created concerning the activities	Compare the activities under point three and operate for cost/revenue/benefit differences
6. Be transparent	Any decision must be explained and documented	Create an income statement of the initiative with the three results (three bottom line–TBL)
7. Verify the result	Propose criteria to verify the results as credible and useful	Create an income statement of the initiative with TBL MSHWF usage indicators: <ul style="list-style-type: none"> • Number of first aid interventions performed • Number of preventive visits • The average duration of disability* • Injury frequency rate* • Severity index of claims* • Reduction of costs for families for nursing services • Cost reduction for businesses
8. Be responsive	Verify to be coherent with societally agreed goals as far and as fast as possible	Periodic reporting with stakeholders Presentation and sharing of the objectives achieved Periodic acquisition of proposals for improvement, given the non-temporary nature of the project

Source: Authors' elaboration on principles of social value, 2021 (* required by sector legislation).

p. 6), would be at risk of being split into two parts. Accepting this dualistic approach would also make it more difficult—though not impossible—to measure the SROI, as the variables related to health and well-being would no longer be managed as part of an integrated pathway.

Interviewees consider the ability of the organizational model to run the MSHWF crucial. A plurality of players (public, private, and third sector) have to interact to generate social value for the benefit of the port community and the city. Hence, the most appropriate solution seems to be activating a network contract (Leoncini et al., 2020;

Sciuto, 2014) among companies in the port and backport areas. This contract is an innovative institution provided by Italian law as it enhances the collaboration between companies that contribute to shared projects and objectives while maintaining their legal and operational autonomy, increasing the innovative capacity and competitiveness in the market. The network contract allows the constitution of a subject of ample dimensions endowed with negotiating strength in the relationships with the market and the various stakeholders. A solution of this type would facilitate the PSA to relate to a single

interlocutor, opening the door to structured forms of collaboration among stakeholders in the port and backport area. In countries other than Italy, similar contractual forms could be identified or—assessing their applicability in the specific situation—PPP contracts.

6 | CONCLUSIONS

This research aimed to fill the gap in the literature and the operational reality regarding the social dimension of sustainability. It focuses on the potential development of an MSHWF in a port area. It is a high-risk work environment because of the danger involved and the significant psycho-physical stress and potential conflict situations developing within it. Based on the indications gathered through in-depth interviews with qualified observers, the authors formulated a project idea and attempted to identify the criteria following the SROI approach to measure the social value generated by an MSHWF.

As this research is exploratory, the findings cannot be generalized. However, the indications gathered through the in-depth interviews and the SROI analysis makes it possible to identify the managerial implications of realizing an MSHWF in a port area.

The choice of organizational formula becomes particularly relevant. The most appropriate solution for Italy seems to be the network contract, as it encourages cooperation between enterprises that contribute to realizing shared projects and objectives while maintaining their individuality and autonomy. In other countries, identifying a similar legal framework that permits strong and integrated cooperation could be helpful.

The SROI analysis helps better define the specific project's appropriate mission, considering the different stakeholders and assessing its economic performance and social impact. As highlighted in the paper, the coverage of intangible aspects requests an evaluation effort, implying a measurement challenge many see as difficult to overcome.

Concerning directions for future research, the authors highlight three possible issues.

First, a deepening with an extension of qualitative research to other national and international port areas would be desirable. Additionally, it might be helpful to conduct quantitative research to measure the perceived risk of different operators and the usefulness of the MSHWF at different levels of implementation. Finally, the possibility of making evaluations as precise and context-sensitive as possible through the SROI would require specific information to be gathered concerning well-identified projects which may have different configurations and stakeholders. A research development could consider pilot projects with homogeneous characteristics and the potential influence of digital technologies on the management and improved usability of the MSHWF, to conduct pseudo-empirical evaluations through the SROI.

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ORCID

Patrizia de Luca  <https://orcid.org/0000-0001-6418-2534>

Giorgio Valentinuz  <https://orcid.org/0000-0003-0266-4196>

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