All changes are incorporated into revised manuscript and denoted in red.

Responses to reviewer's comments:

A1 Acronyms:
A Quality Management System (QMS) conforming to ISO 9001:2008 should be considered as an important additional step, in terms of quality, because ISO 9001 also takes into account economic and financial aspects, design and development aspects, and introduces a management review for measurement and analysis of a process with the aim of improving performances (Poli et al., 2012). However, this important issue forces every organization to start either with ISO 9000 or Total Quality Management (TQM) as a business strategy (Sedani and Lakhe, 2011).
The number and type of business processes in a seaport is defined with respect to American Productivity and Quality Center (APQC) Process Classification Framework (PCF) and process owner opinion.
The mentioned integration includes: a) presentation of a seaport as a network of unrelated business processes so the overall success of the business processes may be assessed on the level of predefined criteria; b) the assessment of business processes by fuzzy Analytic Hierarchy Process (FAHP); c) definition of management initiatives which should lead to the improvement of business success; the order of taking management initiatives is based on the obtained rank of business processes.

Experts and operational managers use the pre-defined linguistic expressions, which are modelled by triangular fuzzy numbers (TFNs).

A2 Organization:
References:
David, F.: Strategic Management, Upper Saddle River, N.J. USA: Prentice Hall-Pearson, 2011.
Hutchins, D.: Hoshin Kanri: The Strategic Approach to Continous Improvement. England: Gower e-Book, 2008.
have been removed from the manuscript.
Text:
The seaport operations may be described with a lot of uncertainties, so lately there have been many papers in literature that deal with risk management models (John et al., 2014) and metrics, proposed and numerically implemented to assess the overall performance of large systems, during natural disasters and their recovery – resilience (Shafieezadeh and Burden, 2014). This is due to the fact that much of the available data associated with port operations require a flexible but robust approach of handling as well as updating existing information with new data. As risk management activities are oriented to safety, port safety evaluation (Pak et al., 2015) is the first step in overall safety enhancement. After quality management certification, determining of performances of business processes is based on pre-defined critical success factors (CSFs) (Oakland, 2004).
has been moved to the section 1 in the revised manuscript.
Section 2 of the revised manuscript has been renamed to 2 Analysis of performances, key performances indicators and business processes in a seaport.
Section 2.1 has been renamed to 3. The model for evaluation of seaport business processes in the revised manuscript. Also, this section has been improved in a manner that the proposed algorhytm is not repeated as it has been suggested.

As the reviewer suggested, in order to make the reference with the application, the identified key performance indicators have been denoted as it is presented.

(Q1) Quality of the seaport services
(Q2) Average number of customers
(Q3) Average number of vessels in the queue
(Q4) Pilotage operation of the vessel
(E1) Quality of air
(E2) Water quality and (E3) Noise
(E4) Hazardous substances
(S1) Vessel safety
(S2) Traffic volume
(S3) Weather sea condition and channel condition
(S4) Other safety factors

A3

The notation has been formatted into table.

Table 2 Notation

	running index	set size symbol	set size
experts	e	E	4
performances	k	K	3
KPI of kth performance	j	J_k	4
business process	i	I	5

The structure (x; 2; 3; 4) has been transformed into (2; 3; 4).

very low importance/preferency: VL = (1,1,2)
low importance/preferency: L = (1,2,3)
moderate importance/preferency: M = (2,3,4)
high importance/preferency: H = (3,4,5)
very high importance/preferency: VH= (4,5,5)

All unnecessary symbols have been removed in the revised manuscript.
The alphabetical order is respected in revised manuscript.

A4

- Adjective business has been used with processes.

Sub process Business activities in seaport (p=5) has been changed into Activities in seaport (p=5).

- Matrices P11-P14 have been modified in compliance with reviewer's suggestion.
- Figure 1 has been simplified in revised manuscript.

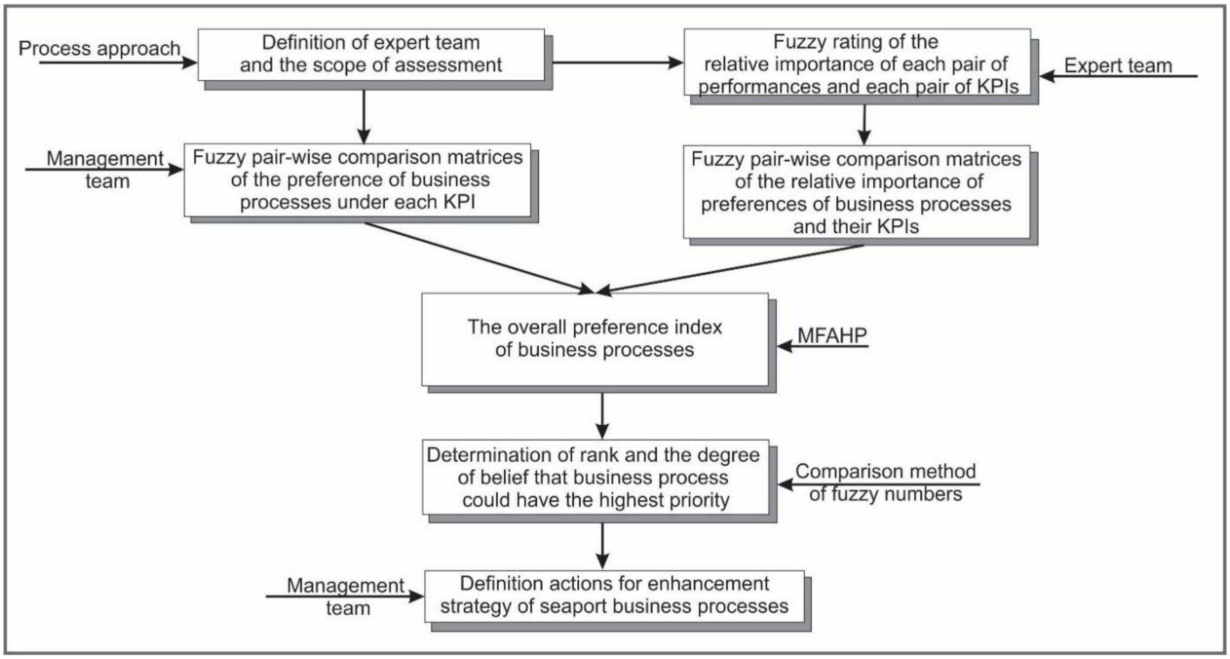

Figure 1 – The evaluation procedure of seaport business processes by FAHP

Figure 2 has been improved in the terms of notation for better understanding in the revised manuscript.

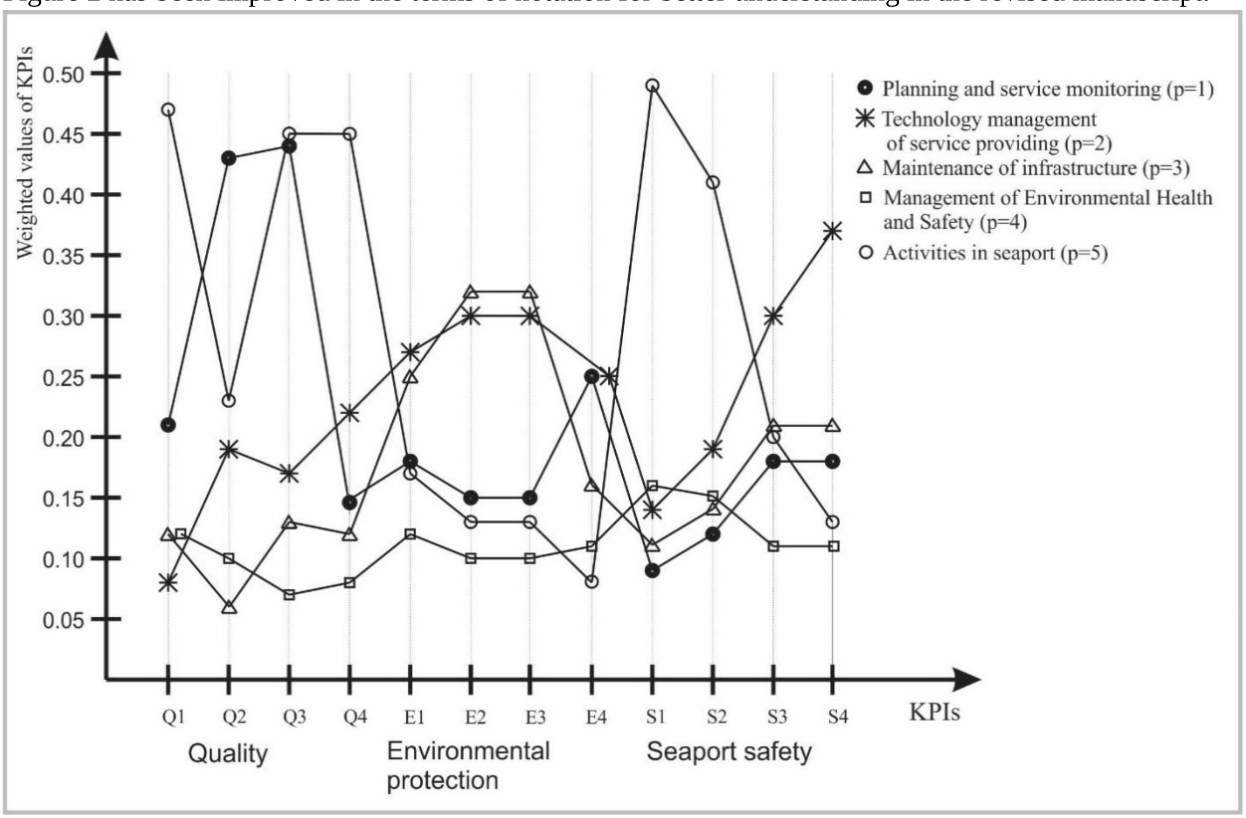

Fig. 2. Sensitivity of each business process with respect to the KPIs

- The sentence has been removed.

A5

- The table of processes has been incorporated into revised manuscript.
-
- Table 1 Identified business processes in the seaport

Running index	Title of the business process
p=1	Planning and service monitoring
p=2	Technology management of service providing
p=3	Maintenance of infrastructure
p=4	Management of Environmental Health and Safety
p=5	Activities in seaport

-

A6

English has been improved.

B1

The term verified is replaced in the revised manuscript.

The model is tested through an illustrative example with real life data, where the obtained data suggest measures which should enhance business strategy and improve key performance indicators.

B2

- All comments defined in the part A have been incorporated into revised manuscript.
- Based on the internal policy of treated seaport, the expert team is adjoined with different specific weights (table 3).

Table 3 – Specific weights of expert team

Experts	Specific weight of the expert
seaport owner	0.4
main manager	0.3
local government expert	0.2
The representative of operational management of the seaport	0.1

- We want to thank to the reviewer for this very useful comment. However, the proposed model is tested in one seaport in the process of restructuring in developing country. Our truthful intention was to describe the real situation so we had similar questions (like reviewer) but we have decided to stick with the real situation.
- According to Ishizaka and Labib, (2009), the verbal comparison must be converted into numerical scales, such as linear (Power, Geometric, Logarithmic, etc.). Also, mentioned authors have concluded that „Theoretically there is no reason to be restricted to these numbers and verbal gradation.“
  In the revised manuscript, we have decided to proceed like Chang (1996).
  The domains of fuzzy numbers can be defined on different scales (Ishizaka and Labib, 2009) and in this paper the domains of presented TFNs are defined into interval [1-5].
  Chang, D., Y.: Applications of the extent analysis method on fuzzy AHP, European Journal of Operational Research, 95, 649-655, doi:10.1016/0377-2217(95)00300-2, 1996.
- All judgements were made by experts and authors came to the similar conclusion as a reviewer. There are some crisp numbers (1, 1, 1) in the off-diagonal elements but we wanted to present the real state and opinion of experts.

B3

- The presence of the pairwise comparison matrix has been emphasized in the figure 1 in revised manuscript.
- Thank you for the very useful suggestion. We have calculated consistency of the matrices and expert team did the assessment again, more carefully. Improvement of the revised manuscript are following:
  Fuzzy pair-wise comparison matrices of the relative importance of performance, the relative importance of KPU under each performance and preference of business processes respecting each KPI are stated. Before all the calculation of vectors of priorities it is necessary to determine the

coefficient of consistency to reflect the consistency of the decision makers' judgements during the evaluation phase (Saaty, 2008). Calculation of consistency may be delivered by using the method of logarithmic least squares (Lootsma, 1996), eigen vector method (Saaty, 2008), method of geometric mean (Ramik, 2009), etc. The eigen vector method represents a natural measure for inconsistency and it is used in wide literature and it is used in this paper, too. It is worth to mention that all relevant indexes of consistence (C.I.) should be equal or below the threshold of 0.1.

The elements of constructed fuzzy pair-wise matrices are defuzzified, and after that, the consistence of fuzzy pair-wise matrices is determined. It is determined by analogy with Torfi et al., (2010).

The fuzzy-pair wise comparison matrix of the relative importance of performances is presented (according to Step 1 of the proposed Algorithm):

$$\begin{bmatrix} (1,1,1),(1,1,1),(1,1,1),(1,1,1) & M,H,(1,1,1),L & 1/L,1/VL,1/L,(1,1,1) \\ 1/M,1/H,(1,1,1),1/L & (1,1,1),(1,1,1),(1,1,1),(1,1,1) & 1/M,1/H,(1,1,1),1/VL \\ L,(1,1,1),L,(1,1,1) & M,H,(1,1,1),VL & (1,1,1),(1,1,1),(1,1,1),(1,1,1) \end{bmatrix}_{3x3}$$

Application of FOWA is illustrated by the following example. The aggregated relative importance of quality performance (k=1) over environmental protection performance (k=2) can be calculated as:

$$\tilde{W}_{12} = 0.4\cdot(2,3,4) + 0.3\cdot(3,4,5) + 0.2\cdot(1,1,1) + 0.1\cdot(1,2,3) = (2,2.8,3.6)$$

The fuzzy pair-wise comparison matrix of the aggregated relative importance of performances is:

$$\begin{bmatrix} (1,1,1) & (2,2.8,3.6) & (0.45,0.7,1) \\ (0.28,0.36,0.5) & (1,1,1) & (0.41,0.51,0.58) \\ (1,1.43,2.22) & (1.72,1.96,2.44) & (1,1,1) \end{bmatrix}_{3x3}$$, C.I.=0.048

The procedure for calculating quality weight is presented as follows (Step 2 of the proposed Algorithm):

$$\alpha_1 = \left[\prod_{k=1}^{3} 1\cdot 2\cdot 0.35\right]^{1/3} = 0.89,\quad \beta_1 = \left[\prod_{k=1}^{3} 1\cdot 2.8\cdot 0.7\right]^{1/3} = 1.25,\ \text{and}\ \chi_1 = \left[\prod_{k=1}^{3} 1\cdot 3.6\cdot 1\right]^{1/3} = 1.53$$

and

$$\alpha = \sum_{k=1}^{K}\alpha_k = 2.65,\quad \beta = \sum_{k=1}^{K}\beta_k = 3.22,\ \text{and}\ \chi = \sum_{k=1}^{K}\chi_k, = 3.95$$

Then the weight of quality performance (k=1) is calculated in compliance with Eq. (2) and Eq. (3):

$$\tilde{w}_1 = \left(0.89\cdot 3.95^{-1}, 1.25\cdot 3.22^{-1}, 1.53\cdot 2.65^{-1}\right) = (0.24, 0.39, 0.58)$$

Similarily, weights of the rest of the performances are calculated:

$\tilde{w}_2 = (0.12, 0.17, 0.25)$, and $\tilde{w}_3 = (0.30, 0.44, 0.66)$.

The fuzzy pair wise comparison matrix of the KPIs under quality performance is:

$$\begin{bmatrix} (1,1,1) & (0.78,0.95,1) & (1.25,2,2.70) & (0.85,1,1) \\ (1,1.05,1.28) & (1,1,1) & (1.4,2.10,2.90) & (0.5,1,1) \\ (0.37,050,0.80) & (0.34,0.48,0.71) & (1,1,1) & (0.34,0.55,0.87) \\ (1,1,1.18) & (1,1,2) & (1.15,1.82,2.94) & (1,1,1) \end{bmatrix}_{4x4}$$, C.I.=0.1

By using the procedure developed in (Wu et al., 2004), the weights of sub criteria under quality performance are:

$\tilde{v}_1^1 = (0.19, 0.28, 0.38)$, $\tilde{v}_2^1 = (0.19, 0.29, 0.41)$, $\tilde{v}_3^1 = (0.09, 0.14, 0.25)$, and $\tilde{v}_4^1 = (0.21, 0.28, 0.41)$.

The fuzzy pair wise comparison matrix of the KPIs under environmental protection performance is:

$$\begin{bmatrix} (1,1,1) & (0.22,0.25,0.40) & (0.31,0.48,0.80) & (1,1,1.30) \\ (2.50,3.57,4.55) & (1,1,1) & (1.40,2.10,2.90) & (0.50,1,1) \\ (1.25,2.08,3.23) & (0.34,0.48,0.71) & (1,1,1) & (0.34,0.55,0.85) \\ (0.87,1,1) & (1,1,2) & (1.18,1.82,2.94) & (1,1,1) \end{bmatrix}_{4x4}$$, C.I.=0.91

The weights of KPIs under environmental protection performance are:

$\tilde{v}_1^2 = (0.09, 0.14, 0.25)$, $\tilde{v}_2^2 = (0.21, 0.39, 0.59)$, $\tilde{v}_3^2 = (0.11, 0.20, 0.36)$, and $\tilde{v}_4^2 = (0.18, 0.27, 0.48)$

The fuzzy pair wise comparison matrix of the KPIs under safety criterion is:

$$\begin{bmatrix} (1,1,1) & (0.67,0.90,1) & (2.30,3.30,4.30) & (3.50,4.50,5) \\ (1,1.11,1.49) & (1,1,1) & (2.30,3.30,4.30) & (3.80,4.80,4.90) \\ (0.23,0.3,0.43) & (0.23,0.3,0.43) & (1,1,1) & (1.50,2.50,3.50) \\ (0.20,0.22,0.29) & (0.20,0.21,0.26) & (0.29,040,0.67) & (1,1,1) \end{bmatrix}_{4x4}$$, C.I.=0.016

The weights of KPIs under safety performance are:

$\tilde{v}_1^3 = (0.26, 0.38, 0.52)$, $\tilde{v}_2^3 = (0.29, 0.41, 0.58)$, $\tilde{v}_3^3 = (0.09, 0.14, 0.22)$, and $\tilde{v}_4^2 = (0.06, 0.07, 0.11)$.

Similarly, the fuzzy pair-wise comparison matrices of the business processes' preference are presented.

Quality performance

(Q1) Quality of the seaport services

$$\begin{bmatrix} (1,1,1) & L & L & H & 1/M \\ 1/L & (1,1,1) & M & M & 1/L \\ 1/L & 1/M & (1,1,1) & 1/L & 1/VH \\ 1/H & 1/M & L & (1,1,1) & 1/VH \\ M & L & VH & VH & (1,1,1) \end{bmatrix}_{5x5}$$, C.I.=0.058

$\tilde{p}^{1}_{11} = (0.12, 0.22, 0.41)$ $\tilde{p}^{1}_{21} = (0.11, 0.19, 0.38)$, $\tilde{p}^{1}_{31} = (0.05, 0.07, 0.14)$, $\tilde{p}^{1}_{41} = (0.05, 0.08, 0.14)$ and $\tilde{p}^{1}_{51} = (0.25, 0.43, 0.68)$.

(Q2) Average number of customers

$$\begin{bmatrix} (1,1,1) & VH & H & M & H \\ 1/VH & (1,1,1) & VL & VL & 1/H \\ 1/H & 1/VL & (1,1,1) & 1/H & 1/VH \\ 1/M & 1/VL & H & (1,1,1) & 1/L \\ 1/H & H & VH & L & (1,1,1) \end{bmatrix}_{5x5}$$, C.I.=0.085

$\tilde{p}^{1}_{12} = (0.28, 0.43, 0.62)$, $\tilde{p}^{1}_{22} = (0.14, 0.19, 0.29)$, $\tilde{p}^{1}_{32} = (0.04, 0.06, 0.09)$, $\tilde{p}^{1}_{42} = (0.07, 0.10, 0.16)$ and $\tilde{p}^{1}_{52} = (0.14, 0.23, 0.34)$

(Q3) Average number of vessels in the queue

$$\begin{bmatrix} (1,1,1) & VH & H & L & M \\ 1/VH & (1,1,1) & L & L & VL \\ 1/H & 1/L & (1,1,1) & L & VL \\ 1/L & 1/L & 1/L & (1,1,1) & 1/M \\ 1/M & 1/VL & 1/VL & M & (1,1,1) \end{bmatrix}_{5x5}$$, C.I.=0.093

$\tilde{p}^{1}_{13} = (0.25, 0.44, 0.72)$, $\tilde{p}^{1}_{23} = (0.1, 0.17, 0.3)$, $\tilde{p}^{1}_{33} = (0.08, 0.13, 0.26)$, $\tilde{p}^{1}_{43} = (0.06, 0.09, 0.2)$ and $\tilde{p}^{1}_{53} = (0.12, 0.17, 0.27)$.

(Q4) Pilotage operation of the vessel

$$\begin{bmatrix} (1,1,1) & L & L & VL & 1/M \\ 1/L & (1,1,1) & M & L & 1/M \\ 1/L & 1/M & (1,1,1) & M & 1/H \\ 1/VL & 1/L & 1/M & (1,1,1) & 1/VH \\ M & M & H & VH & (1,1,1) \end{bmatrix}_{5x5}$$, C.I.=0.1

$\tilde{p}^{1}_{14} = (0.15, 0.29, 0.58)$, $\tilde{p}^{1}_{24} = (0.14, 0.28, 0.54)$, $\tilde{p}^{1}_{34} = (0.09, 0.21, 0.34)$, $\tilde{p}^{1}_{44} = (0.06, 0.1, 0.14)$ and $\tilde{p}^{1}_{54} = (0.07, 0.13, 0.26)$

Environmental protection

(E1) Quality of air

$$\begin{bmatrix} (1,1,1) & 1/L & 1/L & M & VL \\ L & (1,1,1) & VL & M & VL \\ L & 1/VL & (1,1,1) & L & VL \\ 1/M & 1/M & 1/L & (1,1,1) & L \\ 1/VL & 1/VL & 1/VL & 1/L & (1,1,1) \end{bmatrix}_{5x5}$$, C.I.=0.1

$\tilde{p}_{11}^{2} = (0.11, 0.18, 0.32)$, $\tilde{p}_{21}^{2} = (0.17, 0.27, 0.40)$, $\tilde{p}_{31}^{2} = (0.15, 0.25, 0.44)$, $\tilde{p}_{41}^{2} = (0.07, 0.12, 0.23)$ and $\tilde{p}_{51}^{2} = (0.10, 0.17, 0.25)$.

(E2) Water quality and (E3) Noise

$$\begin{bmatrix} (1,1,1) & 1/M & 1/M & H & VL \\ M & (1,1,1) & VL & H & H \\ M & 1/VL & (1,1,1) & H & H \\ 1/H & 1/H & 1/H & (1,1,1) & L \\ 1/VL & 1/H & 1/L & 1/L & (1,1,1) \end{bmatrix}_{5x5}$$, C.I.=0.77

$\tilde{p}_{12}^{2} = \tilde{p}_{13}^{2} = (0.09, 0.13, 0.24)$, $\tilde{p}_{22}^{2} = \tilde{p}_{23}^{2} = (0.22, 0.34, 0.59)$, $\tilde{p}_{32}^{2} = \tilde{p}_{32}^{2} = (0.19, 0.34, 0.51)$, $\tilde{p}_{42}^{2} = \tilde{p}_{43}^{2} = (0.05, 0.08, 0.14)$ and $\tilde{p}_{52}^{2} = \tilde{p}_{53}^{2} = (0.06, 0.11, 0.18)$.

(E4) Hazardous substances

$$\begin{bmatrix} (1,1,1) & 1/VL & 1/VL & VH & M \\ VL & (1,1,1) & VL & H & M \\ VL & 1/VL & (1,1,1) & VH & L \\ 1/VH & 1/H & 1/VH & (1,1,1) & 1/M \\ 1/M & 1/M & 1/L & M & (1,1,1) \end{bmatrix}_{5x5}$$, C.I.=0.016

$\tilde{p}_{14}^{2} = (0.15, 0.26, 0.4)$, $\tilde{p}_{24}^{2} = (0.18, 0.33, 0.53)$, $\tilde{p}_{34}^{2} = (0.14, 0.23, 0.43)$, $\tilde{p}_{44}^{2} = (0.05, 0.07, 0.12)$ and $\tilde{p}_{54}^{2} = (0.07, 0.11, 0.22)$

Seaport safety

(S1) Vessel safety

$$\begin{bmatrix} (1,1,1) & VL & 1/VL & VL & VL \\ 1/VL & (1,1,1) & L & M & L \\ VL & 1/L & (1,1,1) & L & VL \\ 1/VL & 1/M & 1/L & 1/VL & 1/L \\ 1/VL & 1/L & VL & L & (1,1,1) \end{bmatrix}_{5x5}$$, C.I.=0.03

$\tilde{p}_{11}^{3} = (0.12, 0.19, 0.35)$, $\tilde{p}_{21}^{3} = (0.14, 0.31, 0.54)$, $\tilde{p}_{31}^{3} = (0.11, 0.19, 0.43)$, $\tilde{p}_{41}^{3} = (0.06, 0.12, 0.23)$ and $\tilde{p}_{51}^{3} = (0.09, 0.19, 0.38)$.

(S2) Traffic volume

$$\begin{bmatrix} (1,1,1) & VL & (1,1,1) & VL & VL \\ 1/VL & (1,1,1) & M & H & M \\ (1,1,1) & 1/M & (1,1,1) & M & L \\ 1/VL & 1/H & 1/M & (1,1,1) & 1/VL \\ 1/VL & 1/M & 1/L & VL & (1,1,1) \end{bmatrix}_{5x5}$$, C.I.=0.069

$\tilde{p}_{12}^{3} = (0.14, 0.18, 0.36)$, $\tilde{p}_{22}^{3} = (0.2, 0.37, 0.56)$, $\tilde{p}_{32}^{3} = (0.12, 0.21, 0.35)$, $\tilde{p}_{42}^{3} = (0.06, 0.11, 0.16)$ and $\tilde{p}_{52}^{3} = (0.08, 0.13, 0.24)$

(S3) Weather sea condition and channel condition

$$\begin{bmatrix} (1,1,1) & VL & 1/L & 1/L & 1/VH \\ 1/VL & (1,1,1) & VL & L & 1/H \\ L & 1/VL & (1,1,1) & 1/M & 1/H \\ L & 1/L & M & (1,1,1) & 1/M \\ VH & H & H & M & (1,1,1) \end{bmatrix}_{5x5}$$, C.I.=0.084

$\tilde{p}_{13}^{3} = (0.06, 0.09, 0.16)$, $\tilde{p}_{23}^{3} = (0.09, 0.14, 0.24)$, $\tilde{p}_{33}^{3} = (0.06, 0.11, 0.18)$, $\tilde{p}_{43}^{3} = (0.09, 0.16, 0.30)$ and $\tilde{p}_{53}^{3} = (0.31, 0.49, 0.74)$.

(S4) Other safety factors

$$\begin{bmatrix} (1,1,1) & VL & 1/L & 1/VL & 1/VH \\ 1/VL & (1,1,1) & L & 1/M & 1/H \\ L & 1/L & (1,1,1) & 1/M & 1/M \\ VL & M & M & (1,1,1) & 1/L \\ VH & H & M & L & (1,1,1) \end{bmatrix}_{5x5}$$, C.I.=0.088

$\tilde{p}_{14}^{3} = (0.07, 0.12, 0.19)$, $\tilde{p}_{24}^{3} = (0.06, 0.12, 0.20)$, $\tilde{p}_{34}^{3} = (0.06, 0.11, 0.25)$, $\tilde{p}_{44}^{3} = (0.13, 0.23, 0.45)$ and $\tilde{p}_{54}^{3} = (0.24, 0.44, 0.71)$.

Preference indices of business processes under each identified criterion are calculated by using procedure (Step 3 of the proposed Algorithm). By using the proposed procedure (Step 5 to Step 7) the rank of business processes under evaluation criteria is determined.

The calculated preference indices of the treated business processes and their rank under the identified evaluation criteria are presented in the following text (Table 4, Table 5, Table 6).

Table 4 Preference indices of business processes and their rank under quality performance

Process no.	Preference index	Rank	Degree of belief that business process can be the best
p=1	(0.13, 0.329, 0.828)	1	1
p=2	(0.086, 0.211, 0.559)	3	0.784
p=3	(0.085, 0.114, 0.294)	4	0.432
p=4	(0.041, 0.092, 0.226)	5	0.288
p=5	(0.097, 0.247, 0.379)	2	0.752

Table 5 Preference indices of business processes and their rank under environmental protection performance

Process no.	Preference index	Rank	Degree of belief that business process can be the best
p=1	(0.065, 0.172, 0.5)	3	0.715
p=2	(0.111, 0.327, 0.915)	1	1
p=3	(0.099, 0.298, 0.801)	2	0.959
p=4	(0.031, 0.083, 0.248)	5	0.359
p=5	(0.041, 0.118, 0.339)	4	0.522

Table 6 Preference indices of business processes and their rank under safety performance

Process no.	Preference index	Rank	Degree of belief that business process can be the best
p=1	(0.087, 0.166, 0.447)	4	0.721
p=2	(0.106, 0.298, 0.68)	1	1
p=3	(0.072, 0.181, 0.494)	3	0.768
p=4	(0.049, 0.129, 0.328)	5	0.568
p=5	(0.089, 0.225, 0.578)	2	0.866

Table 7 The overall preference index

Process no.	The overall preference index	Rank	Degree of belief that business process can be the best
p=1	(0.065, 0.231, 0.9)	2	0.956
p=2	(0.066, 0.269, 1)	1	1
p=3	(0.067, 0.175, 0.697)	4	0.869
p=4	(0.028, 0.107, 0.409)	5	0.677
p=5	(0.055, 0.215, 1.686)	3	0.918

B4

Authors have started from the work of Chang (1996). In the literature, there is a wide range of variations of this work (like our manuscript). For example, the calculation of weights or preferences may be performed in different ways (Torfi et al., 2010).

F. Torfi, R.Z. Farahani, S. Rezapour, Fuzzy AHP to determine the relative weights of evaluation criteria and Fuzzy TOPSIS to rank the alternatives. Applied Soft Computing, 10 (2) (2010), 520-528.

We agree with the reviewer that proposed fuzzy AHP is not significantly modified so term modified has been deleted in the revised manuscript.

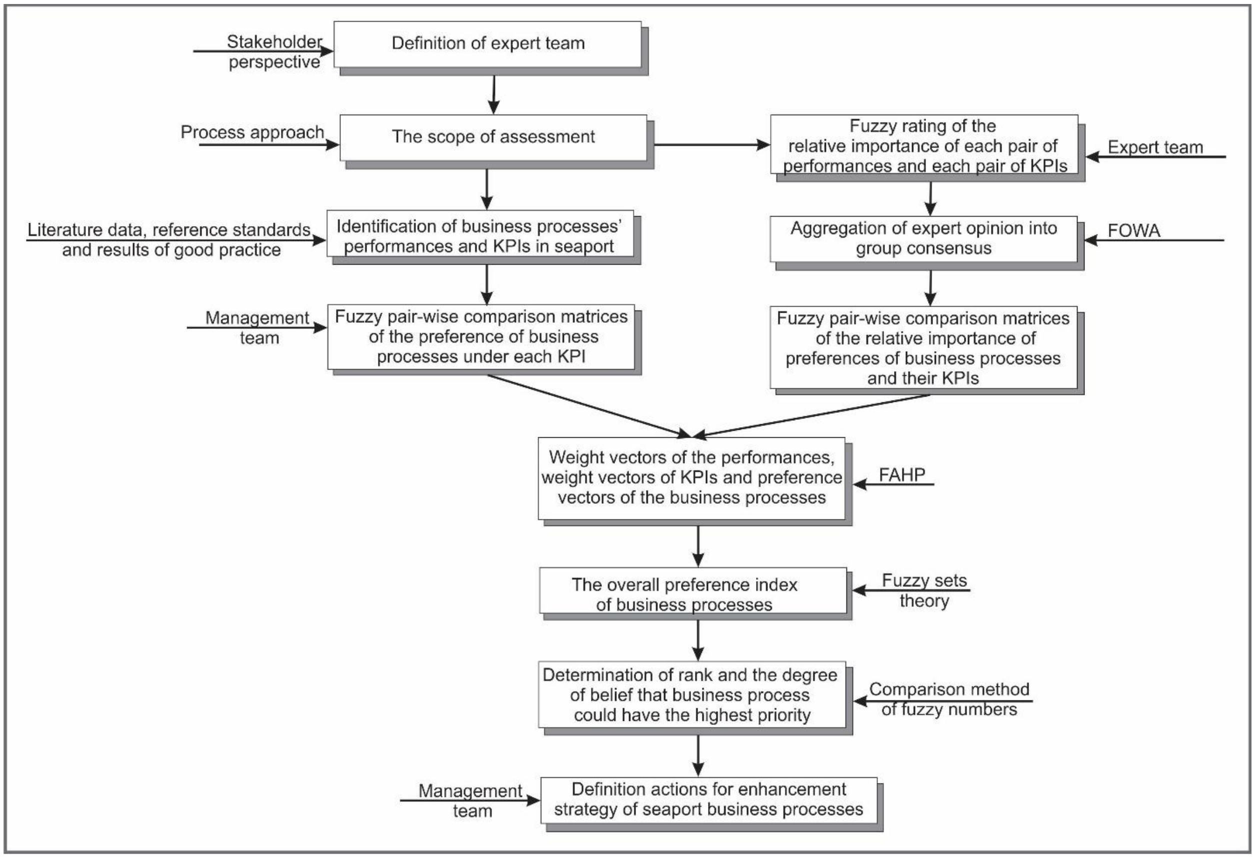

Figure 1 – The evaluation procedure of seaport business processes by AHP

B5

Authors want to thank the reviewer for this suggestion. In interaction with the expert team, we have obtained improved input data, so new tables with results are presented (table4, table 5, table 6 and table 7; figure 2 and figure 3).

According to the final score, the business process (p=2) is the most preferred because it has the highest priority. According to the calculated degree of belief, it may be assumed that all identified processes are significant for the seaport so, in the same time, it can be suggested that the management team has defined an adequate reference model of an organization.

C1

Authors have used 5 linguistic expressions which are modelled by using TFNs. The domains of these fuzzy numbers are defined on the set of real line into 1-5. As there are no formal guidelines and rules to determine granulation of TFNs, authors assumed than modal values of employed TFNs should be denoted as 1, 2, 3, 4, 5, respectively.

C2

For the reason of symmetry, the elements on the main diagonal are changed in compliance with the reviewer suggestion. In the same time, the dimension of matrices are denoted.

C3

- Authors have changed the text in compliance with the reviewer's suggestion.
  (They make a decision by group consensus.)
- Authors have changed the text in compliance with the reviewer's suggestion.
- Authors have changed the text in compliance with the reviewer's suggestion.
- Authors have changed the text in compliance with the reviewer's suggestion.
  $\tilde{a}_i = \sum_{k=1}^{K} \tilde{w}_k \cdot \tilde{a}_i^k =$, i=1,...,I; j=1,..,$J_k$; $k = 1, \ldots, K$ Eq. (5)
- New subsection has been incorporated as reviewer suggested.
  4.1 Business processes' ranking on real life data