

Creature comforts onboard ships

Facilities and amenities on maritime vessels

Degree thesis

Lucas Reijonen

Degree Thesis for Maritime Management degree Maritime Management

Turku, 2021



DEGREE THESIS

Author: Lucas Reijonen

Program and campus: Degree programme in Maritime Management – Turku

Specialization: Bachelor's degree in maritime Management

Supervisor: Ritva Lindell

Title: Creature comforts onboard vessels

Date: 29.3.2021

No. of pages:29

Appendices: 0

Abstract

Creature comforts, facilities and amenities onboard vessels, are one of the key features that will define the wellbeing onboard a vessel. The ability to relax, communicate with crewmates and family back home, or doing something to take your mind off work is critical to being able to work for long periods of time. With the modern sailor working more than ever before this means that these facilities and amenities are critical for wellbeing and mental health. A question then comes to mind: which is the most important of the facilities that can be put onboard a vessel? This study answers this based of a survey of 88 people in the Finnish maritime sector. The study shows that having an internet connection is the most important, whether it be to communicate with family and friends or to stream movies and shows. The results also show that good quality accommodations, exercise and relaxation facilities are also very desirable things to have onboard. Some are more easily implemented, and some are quite prohibitive in either their ease of procurement or sheer cost, though this should not dissuade shipowners from still considering the benefits they bring to the crew.

Language: English

Keywords: Facilities, Amenities, wellbeing

1 Table of contents

1.0	Introduction	1
	1.1 Problem formulation	1
	1.2 Preparatory research	2
	1.3 Aim of study	3
	1.4 Research Problems	3
	1.5 Limitations	3
2. 7	Гheory	4
3. N	Method	6
4. F	Results	8
	4.1 Background	8
	4.2 Ratings of creature comforts	11
	Gym	11
	TV-Access	12
	Movie library	14
	Snack bar	15
	Drinks fridge	16
	Book library	17
	Gaming console	18
	Karaoke	19
	Computer	20
	Wi-Fi	21
	Pool	22
	Cabin	23
	Physical games	24
	4.4 Analysis	25
	4.3 The "anything else" section	26
	4.3.1 Personal most important	26
	4.3.2 The "anything else?" question	27
5. (Conclusions	28
6. 9	Self reflection	28
Ref	ferences	1

1.0 Introduction

Amenities and facilities onboard are an important part of what makes a vessel a nice and hospitable place. Without these a crew cannot function to their maximum potential and will not be happy to return to work, as much as one can be happy to return to work. If you have good facilities onboard, the workers will work more effectively. This in turn will increase the reputation and therefore value of the company, according to (Ellis & Sampson, 2013) where they refer to another study. (Tencati, Perrini, & Pogutz, 2004) Even facilities added after many years' service by a crew can still add a lot to the hospitality of a ship, such a container gym for example. This made me curious about how these would be valued by the Finnish seafaring community.

1.1 Problem formulation

The topic of creature comforts came to me from the fact that there are a lot of studies and a lot of emphasis on the wellbeing of mariners and trying to make the vessels a better workplace, but not enough studies on concrete physical facilities and amenities onboard. The facilities onboard make the vessel a much better place to live and work in. While not as important as a good crew and social environment, proper facilities contribute significantly to the wellbeing of a seafarer. This topic is particularly important to myself as I value proper facilities onboard and have found some the vessels, on which I have sailed on to be lacking in this department.

I wanted to find out which facilities and amenities were the most important to mariners. In my preparation research I found one study that had similar research, although this research sought to find how many seafarers were provided with different amenities. My study will try to find the value of each individual facility and amenity.

1.2 Preparatory research

In starting this thesis, I tried to find studies relating to creature comforts onboard vessels. In my research I came upon a lot of articles written about the psychological aspect of working onboard and the wellbeing of crews, but these studies and articles often did not contain information that I could use in my study. When researching about facilities in particular, the focus was mostly on cruise vessel hospitality facilities and not those for the crew, although crew may use them.

The one study that I found interesting was Corporate social responsibility and the Quality of Seafarer Accommodation and Recreational Facilities, (Ellis & Sampson, 2013) in which they asked 1533 seafarers about the satisfaction of their accommodation and recreational facilities. It did not seek to measure the value of any said facility, but to measure the extent to which it was provided and the satisfaction of said facility.

The study concluded that a significant number of seafarers were not satisfied with their accommodation and recreational facilities. To be noted that the demographics of these two studies are quite different and as such may skew the resulting data from this study for international use, see the Ellis & Sampson study for their demographics and limitations. Also, to be noted that the Ellis & Sampson study builds upon previous work by the authors with deeper analysis of their data in said previous work. (Ellis, Sampson, Acejo, Tang, & Turgo, 2012)

In my research I searched for phrases such as: amenities on ships/vessels, facilities on ships/vessels and creature comforts on ships/vessels. I used the google scholar search engine but also the normal google search engine. There is also the matter of paywalls¹, a few articles were interesting, but I could not access them freely due to said paywall.

¹ Paywall - access is restricted to users who have paid to subscribe to the site.

1.3 Aim of study

The aim of my study is to find how each facility and amenity is valued and how they compare against each other. This will give insight into how important these things are and also help ship owners to know what kind of amenities should be added to a vessel for maximum crew comfort and as a result extract the maximum performance by the crew as they are more motivated and they also lower operative costs.

1.4 Research Problems

To meet the aim of my study I need to find out what are the most valued amenities and if there were any amenities I have not included on the list that I will use for the survey. The point is to find out the values of each facility/amenity relative to each other. The only real question I have is: which of the facilities is the highest rated and which is the lowest rated?

1.5 Limitations

This study does not have limitations per se, but the group of participants are limited to students of Aboa Mare Novia, in addition to the primarily Finnish Facebook group², to which the survey has been sent. The participants are from a variety of vessel types and sizes.

-

² Skönarit ja muut meren kulkiat

2. Theory

The definition of creature comforts is, according to the Cambridge dictionary, "Things that make life more pleasant, such as good food and a comfortable place to live." This gives us a good idea what is meant with creature comforts. It is anything that will make a place better to be in and more hospitable, regardless of how small it may be. These are critical on a ship because at its best a vessel can be a very nice place to be and at its worst a metal box with some beds. It is therefore important that shipowners pay attention to the requests of the crew and try to accommodate these requests as they will highly increase morale and the wellbeing of the crew, both physical and psychological.

In the Ellis & Sampson study they state or reference studies that show that there is a link between good facilities onboard and the wellbeing of the crew and some facilities such internet or phone access are not only beneficial to the crew but also a humane right. (Chan & Lee, 2006) (Franzini, Caughy, Spears, & Esquer, 2005) They also reference several studies which show that improper facilities will degrade the social interaction onboard and as such will also be detrimental to the health and wellbeing of the crew. (Maas, Van Dillen, Verheij, & Groenewegen, 2009)There is also the issue of with modern high speed shipping and cargo operations, most seafarers do not have time to go ashore in the ports they visit and get some fresh air and relax. The modern seafarer also spends long turns onboard and if he is on a suboptimal vessel, they might not have any way to contact their families while working which highly degrades mental health. (Ellis, Sampson, Acejo, Tang, & Turgo, 2012)

The theory around my thesis is quite simple: I have a list of amenities and facilities, which I will have the participants of the study rate and based on the different ratings we can see which ones are the most valued and which are not important, in relative terms. I have an idea of which ones will be important and which will not be.

The purpose of the study is to find how each facility is rated by the participants.

The Difference between the one previously mentioned study and this one is that the Ellis and Sampson study sought to find out what facilities and amenities were offered to how many seafarers and my study aims to find out the relative value of the amenities in regard to each other. This study does though build on references and findings in the Ellis & Sampson study.

I personally believe that the most valuable facilities and amenities will be the sauna, the gym and Wi-Fi as those are things I would find most important and also they are things that I have heard people like and want to have onboard. I expect the karaoke and pool to be on the lower end of the ratings.

3. Method

The study of the subject is done through a google forms survey. The survey is completely anonymous, but a little bit of background is asked to establish some demographics. The survey is presented in English and Finnish as the participants are bound to speak on of the two languages.

The survey is divided into 3 parts:

- 1. The first part of the survey asks a bit of background such as position onboard, work experience and how many different vessels the participant has sailed on.
- 2. It then proceeds to the second and main part of the survey, which consists of the name of the facility/amenity, a brief description of the facility/amenity and then a scale of 1 10 on which the participant is asked to rate the particular amenity or facility mentioned. There are 14 different facilities and amenities mentioned. They are in no particular order.
- 3. Then comes the third and last part, where there are 2 more questions that ask the following questions:
 - Which of the above mentioned facilities/amenities is the most important you in particular?
 - Was there anything that was not mentioned in the survey that you thought was important?

Based on this survey we will get a good understanding how each facility/amenity compares to each other and how they are ultimately valued by the participants.

The list includes the following examples:

- 1. Sauna
- 2. Gym
- 3. Tv access
- 4. Movie library
- 5. Snack bar
- 6. Drinks fridge
- 7. Book Library
- 8. Gaming console
- 9. Karaoke machine
- 10. A common computer
- 11. Onboard Wi-Fi
- 12. Swimming Pool
- 13. A nice cabin
- 14. Physical games

This set of facilities has been chosen based on things I have encountered onboard and seen to be viable in a maritime environment on cargo vessels. I was curious to see whether other people would have things I had not thought of to add to the list.

The list also probably contains a regional bias and if this survey was done in other parts of the world, the list will contain different things. The "anything else" question was aimed at finding this out, but as the results show, the list was satisfactory, and I did not have to amend the list.

The survey was sent to students of Aboa Mare Novia and also posted on Facebook in a Finnish seafaring group: (Skönärit ja muut kulkiat, 2020). The survey gathered 88 participants in total over a 5 month period, with most of the responses coming from the Facebook group.

4. Results

The survey received 88 answers over a period of five months. Most of these were from the Facebook group as there was a significant number of answers after posting the survey there but the survey does not discriminate whether the participant is from the Facebook group or a student of Aboa Mare Novia.

There is a small caveat to the steward position as it was added later by the suggestion of a participant, as such some stewards may have answered as cooks or hospitality staff. That does not however change the main outcome of the survey as it only affects the background and demographic section.

4.1 Background



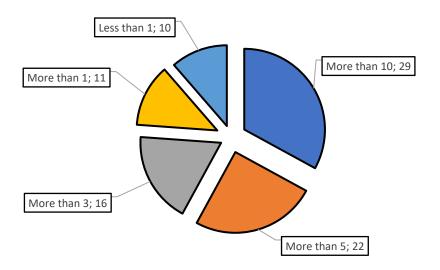


Figure 1: Work experience

Of the 88 participants the majority had worked for over 10 years, which I did not expect. I expected most participants to have shorter careers. Although as the data shows, the group with less than 6 years is in total larger than either of the 2 larger groups. This also reflects the group of acquaintances that the author has, that have not worked that much, and as such pull down the average of the whole participant group down. There also may be a bias because not everyone will answer from the Facebook group and some may be put off for whatever reason.

Number of vessels

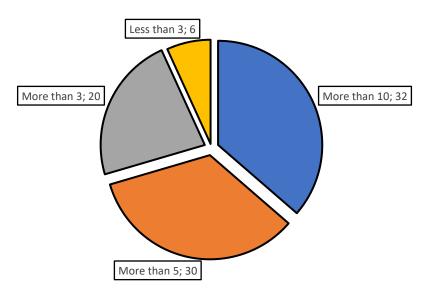


Figure 2: Number of vessels

The figures clearly show the fact that the group of participants leans towards a less experienced demographic with the group of people that have worked on more than 10 different vessels being about one 3rd the size of the one with less experience on less than 10 different vessels. Although the group of people with more than 5 and less than 10 vessels is also about one 3rd.

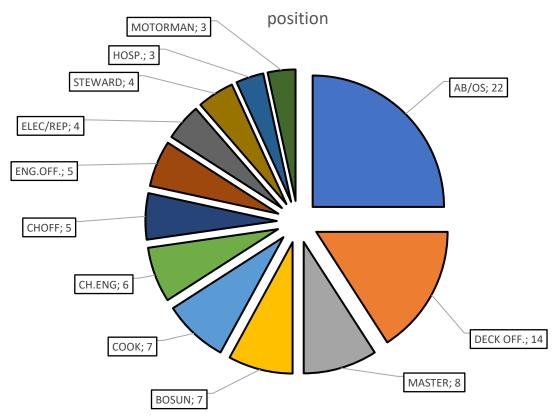


Figure 3: Position

As for the position of the participants we can see that most are working on the deck, whether that be as an AB/OS or officer. Beyond these 2 positions we have a quite even distribution between the other positions with motorman being the least common.

4.2 Ratings of creature comforts

I will proceed through the different facilities in the same order as they appear on the survey questionnaire. I will be using the same graph style for all the ratings but do note that the scaling is not the same on all of the graphs.

Gym

A gym for this purpose constitutes any space with exercise machinery, weight or similar training equipment.

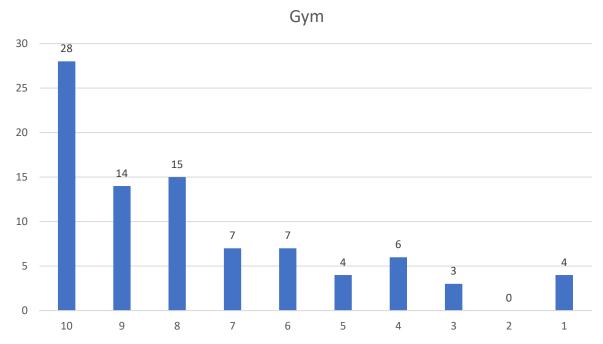


Figure 4: Gym

The gym is generally well liked and a highly sought after amenity onboard. It ranks 4th on the list of facilities and amenities. It was mentioned several times as well on the "most important to you" section. The average rating for the gym was 7.66 and median rating was 8. A gym is also one of the most common facilities to find onboard in some way or shape. But in terms of acquiring gym equipment, they are not the easiest to get as they are expensive and bulky.

TV-Access

A television of some sort, whether in a dayroom or cabin.

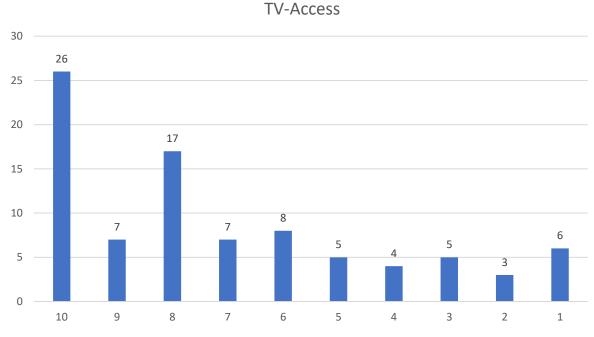


Figure 5: TV-Access

Access to a television is surprisingly high, I expected it to be lower. It ranks 6th in from the list of facilities. Most dayrooms have a TV and nowadays most modern cabins also have a tv. They are a cheap way to increase hospitality on vessel as modern televisions are very cheap and easy to get a hold of, to the point where crewmembers can buy one for themselves in port or on the internet. The average- and median ratings for TV access was 7.09 and 8, respectively.

SaunaA sauna somewhere onboard the vessel.

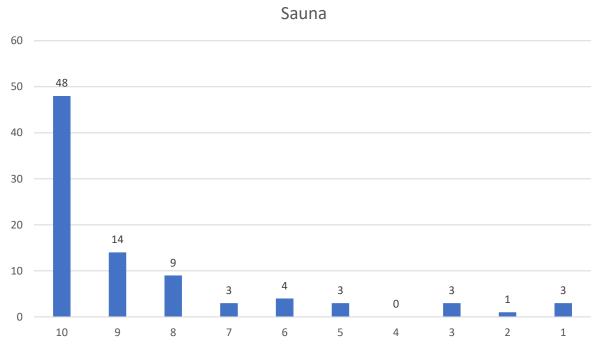


Figure 6: Sauna

A sauna onboard was one of the most important facilities to have on a vessel. The results clearly show a heavy bias towards the very valuable are of the chart. As I expected the sauna was in the top three, ranking 2nd on the list. I believe that the sauna would not be this important if the sample group were not from Finland. The sauna is one of the hardest facilities to build after the fact onto a vessel as it requires a space and electricity and water, although I have been on vessels where this has been done, for example converting a paint store to a sauna, so it is not impossible. The sauna is also a legal requirement on vessels over 500 GRT under the Finnish flag. According to a study on Finnish seafarers and using the sauna, 96% of their study participants enjoyed going to sauna and a majority bathe every other day, if not every day. (Björklöf, 2018) The sauna received an average rating of 8.55 and a median rating of 10.

Movie library

A library of movies and some way to watch them.

Movie library

Figure 7: Movie library

The movie library ranked 7th on the list, interestingly one place above the book library which was 8th. It placed along my expectations of it being somewhere in the midfield. A movie library is provided by MEPA (the Finnish Seamen's Service) for vessels that sail under the Finnish flag and as such the owner of the vessel would only need to provide a TV and DVD player to the vessel to have this capability. But movies are very cheap nowadays so for the ship to purchase the movies themselves. Also, many sailors nowadays have computers with them, and they can watch movies on them too. DVD players being very cheap nowadays, in addition to the TVs, this is not a very hard thing to provide as a shipowner. The average rating for the movie library was 6.34 and the median rating was 7.

Snack bar

A usually self-serve bar of snack such as chips and chocolate, purchased with cash.

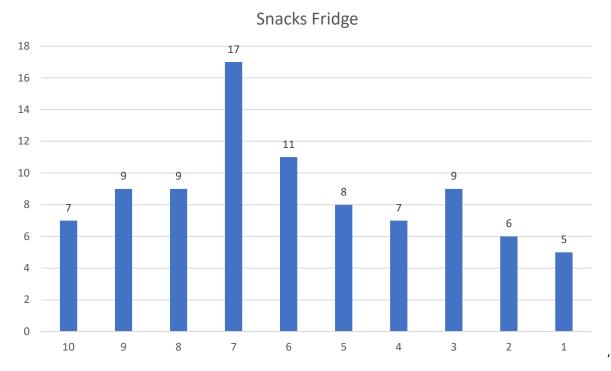


Figure 8: Snacks fridge

The snacks fridge onboard is a very midrange amenity and it scored a bit below average. The special thing with the snack bar is that it is a self-sustaining amenity, the snacks are sold on a profit for the "bank" that buys the snacks, and the money can be used for other purchases to the ship such as DVDs, sports equipment and similar things. This is a trait shared by the drinks bar and usually they have the same "bank" covering both of them. The average- and median ratings were 5.9 and 6, respectively.

Drinks fridge

Usually, a self-serve fridge with soft drinks and alcohol such as beer and long drink, purchased with cash.

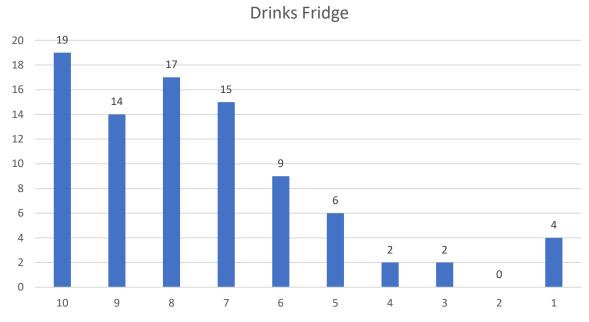


Figure 9: Drinks fridge

The drinks fridge ranks much higher than the snack bar, which again may reflect the Finnish sample group where alcohol consumption after work is very common, especially when going to the sauna. As previously stated the drinks fridge has the trait where it is self-sustaining and only need an initial investment and it will keep itself rolling after that. Therefore, it is something very east to provide to a vessel. The drinks fridge had an average rating of 7.49 and a median rating of 8.

Book library

A library of books.

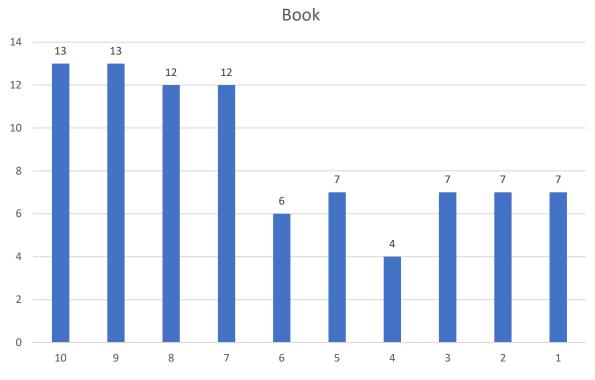


Figure 10: Book library

The book library was ranked just below the movie library which shows that interestingly books are still valued quite a lot, ranking 8th. I believe that the proliferation of streaming services with downloading capabilities has had an effect on the importance of the book and movie libraries. MEPA also provides service for new books for Finnish vessels. There was a comment by one of the participants that the book libraries had a tendency towards thrillers and crime stories. The average rating for the book library was 6.32 and the median rating was 7.

Gaming console

A game console of any kind, available to the crew

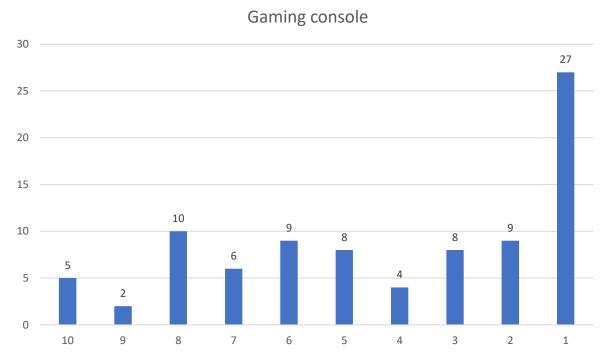


Figure 11: Gaming console

The game console was a surprise for me as I believed it would score higher, but it was one of the lowest rated amenities available. It could also indicate an age distribution towards the older generation where playing video games is not as common. The game console is nonetheless a simple way of bringing entertainment to a vessel as they are quite cheap and readily available. The average rating for the console was 4.19 and median rating 3.5. It is also the first option on the list where the median rating was lower than the average rating.

Karaoke

some kind of karaoke machine or capability.

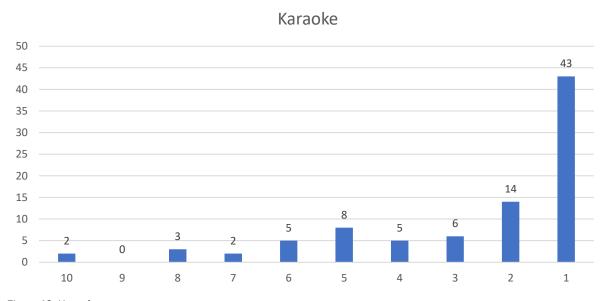


Figure 12: Karaoke

Unsurprisingly the karaoke machine is the least valued amenity. Interestingly if compared to the other amenities and facilities, it is quite often found on Finnish vessels due to it having a high popularity among Filipino sailors which are very common all over the world, Finland included. The average rating for the karaoke device was 2.69 and median rating 2.

Computer

A shared computer everybody can use for their own purposes, usually in the dayroom.

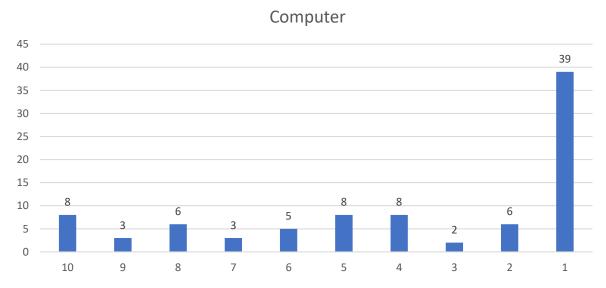


Figure 13: common computer

This was also surprising as I expected the shared computer to be higher. As we will see in the next amenity, internet access clearly is very important, but it seems more to a mobile phone and private use of the internet. The shared computer has an average rating of 3.81 and a median rating of 2.

Wi-FiA wireless satellite internet access onboard.

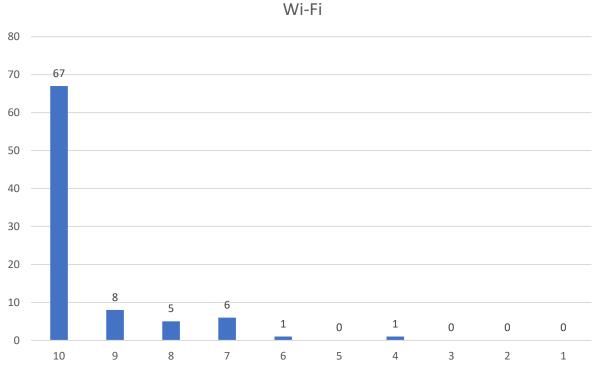


Figure 14: Wi-Fi

As I guessed, a wireless internet access is the most valued amenity onboard. It was also mentioned several times in the personal most important section. Finland is a very internet dependent society so this is not surprising that it would rank the highest. The internet also allows communication with friends and family back home which is extremely critical for wellbeing. The problem with Wi-Fi onboard is that it is very expensive. Not just the connection cost but also the upfront cost of the hardware itself, this all contributes to its lack on most vessels. For consumers w Although most ships have some kind of satellite connection for communication between the office and vessel, but it is rarely available for the crew. This is personally one of the most important ones for me. I also find the one outlier at one rating at 4 to be interesting. The average rating of the internet connection was 9.48 and the median rating was 10.

PoolA swimming pool or hot tub

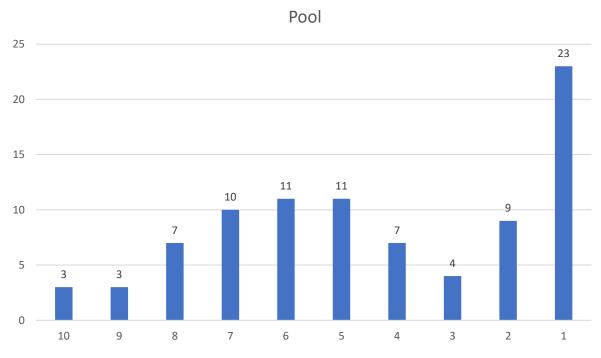


Figure 15: Pool

As we can see a pool is not considered very critical onboard, with the majority voting it more as a nice to have than critical although a large portion of the participants rated it as 1 which denotes that it would not be important at all. I personally have sailed on one ship with a hot tub. Pools, like saunas are one of the facilities that really needs to be built with the ship, it is hard to retrofit a pool. A palju or hot tub is still a possibility if the crew really wanted one. The average rating for the pool was 4,38 and the median was 5.

CabinA nice, well equipped cabin

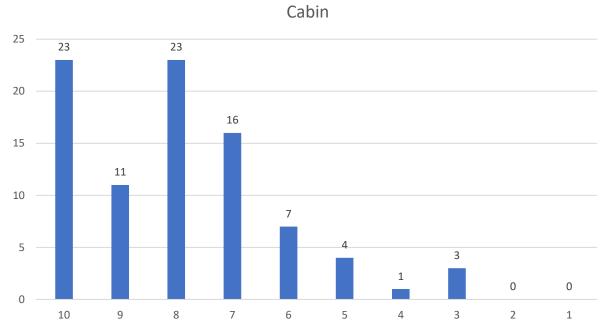


Figure 16: Cabin

This was probably the biggest surprise as I expected this to be number it to have a higher rating than it did, although it did rank 3rd. A nice cabin is clearly a very important factor in hospitality of a ship, and it was mentioned several times in the special mentions section as a vital amenity. A nice cabin is interesting in the fact that a cabin can be spruced up with a tv or similar amenities but if it does not have a bathroom, one is impossible to retrofit. Although most modern ships have personal bathrooms, but I have sailed on some that do not. Also note the dip in ratings at the 9 rating. The ratings for the cabin were 7.95 for average and 8 for median.

Physical games

Any kind of physical game such as badminton or basketball.

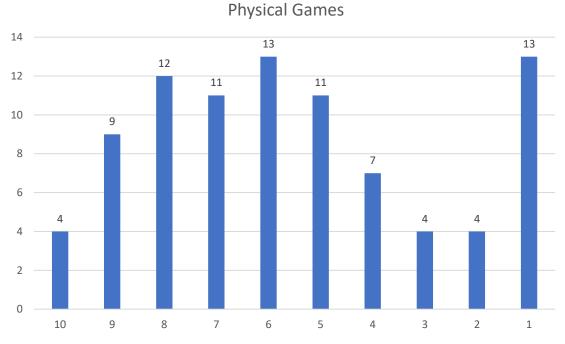


Figure 17: Physical games

A with the pool ratings, we can see a clear bias towards the midrange but a heavy uptick on the 1 rating. Although more heavily towards a higher rating compared to the pool. Physical games are an easy and cheap way to give the crew something to do. For example, a basketball hoop is easily installed on a vessel and a badminton net can be played on deck or on cargo deck. These give the crew a form of exercise and spending time together. The average rating for the physical games was 5.55 and the median rating was 6.

4.4 Analysis

The data clearly show that an internet connection is the most important amenity for the crew, along with the sauna and nice cabin. This is in accordance with my expectations, although I expected the cabin to be number 2. I was surprised by the common computer being so low, I expected it to be higher as you can surf the web with it still. I was also surprised that the list was all in all looked at in favourable the terms as only the last 4 options went below a 5.0 average and median rating, with the median dropping below the average on the 3^{rd} to last option. The average rating for the whole list is 6.13.

This data is heavily skewed by the Finnish origin of most participants and as such may be of limited use to foreign entities or vessels with non-Finnish crews. The data shows this by having the sauna as the second highest ranking option and the drinks fridge being so high. The saunas being disproportionally represented in Finland, it will be probably the one thing that would not be mentioned in foreign versions of a similar survey. (Pentikäinen & Jetsonen, 2000) That being said I believe the rest of the amenities and facilities are applicable to foreign entities. The data also shows that physical activities such as going to the gym and physical games are important to seafarers. In regard to the cabin, the definition of a nice cabin is not set in stone, as it is very subjective. Some may feel that a large cabin is more important than a well-equipped cabin that is more compact. This makes it one of the harder ones for shipowners to facilitate. Although in my experience, modern vessels are built with quite nice cabins that allow a compromise between size and equipment.

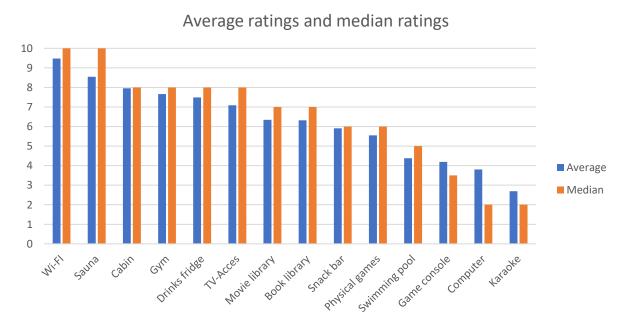


Figure 19: Averages and medians of each amenity

These results also reinforce the findings of the Ellis & Sampson study, showing that communication is a critical need of a crew. The need to communicate to friends and family is one that is critical to the welfare of the seafarer. If we compare the results of the two studies, we can see that internet access is the most important amenity to have onboard but also one of the least provided. The ability to connect to loved ones is critical and as such needs to be facilitated by more shipowners and shipping companies. (Chan & Lee, 2006)

4.3 The "anything else" section

4.3.1 Personal most important

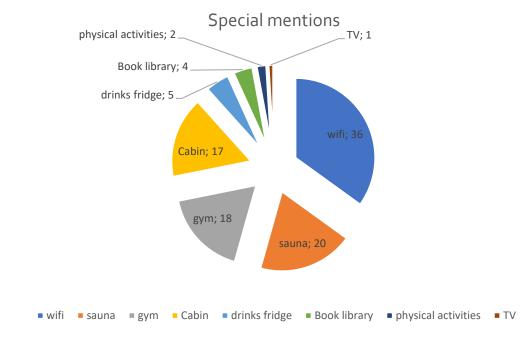


Figure 18: Special mentions

The special mentions cover the last questions where I asked what was the most important amenity/facility in the participants opinion and anything else that was not on the survey. Many participants answered multiple things to the first question and as such affects the graph somewhat. The data clearly shows that Wi-Fi was still the most important and sauna as the second most important. The interesting part is that the gym was mentioned more here than the cabin, which is interesting considering that the cabin was rated higher.

4.3.2 The "anything else?" question

The second question was more open ended and as such received answers with more variety. Some of the answers were things not quantifiable or outside the scope of the study such as good crew spirit or good food. A lot were things that would be included in previously mentioned options such a nice mattress, a fridge in the cabin or wall sockets in the cabin. Some answers were also just reiterations of answers from the list. One specific mention is that a good dayroom/social space, which was mentioned several times. This could be something that shipowners should look into to improve hospitality onboard.

5. Conclusions

The main thing we can take away from this study is that internet access, for whatever purpose, is clearly an essential need onboard. Exercise and relaxation in the form of the gym and sauna are clearly valued highly as well. In the end, shipowners face a problem where they have limited space onboard, limited funds and older vessels which may be unable to facilitate the amenities that the crew might want to have. With newly built vessels incorporating more and more amenities onboard from the build phase, we are moving towards a better working environment but there is still room for improvement. This study is not the broadest possible, but it will give shipowners and shipping companies a bit of an idea, to what it is that should be on a vessel to have maximum crew comfort.

Companies should look into having good facilities for the crew, because as previously mentioned, this will lead to better performance by the crew and in turn will be good for the value of the company. Companies may also want to engage in good policies for the crews, as customers may choose the company based on their reputation and ethics. (McWilliams & Siegel, 2000)

6. Self reflection

All in all, I think the study was successful in its intended purpose. The biggest downside to the study, is not getting a bigger sample size. There was also the small error of not including the steward until it was suggested but as previously stated it only affects the background section and not the actual core study itself.

The use of google forms as the base for the survey was otherwise effective but data processing was difficult in the format that Google forms outputs. The data had to be reformatted to be of quantifiable use to the study.

In terms of results, the premise of the study was simple enough that the questions could be kept simple. This is turn meant that there was not a lot of confusion in the questions and the results were reliable and relevant. The biggest counter to this would be the "anything else" question which as previously mentioned spawned abstract answers which are not tangible in use for this study. This however does not compromise the core study itself and as such is not really a net negative as such.

In terms of theory, the concept was simple and easy to execute. The results and theory are cohesive and show clearly which facilities were the most desirable.

There was a bit of difficulty with the preparatory research as there were so few articles on this subject specifically, with most being focused on facilities aimed for cruise ships and luxury yachts. I am not sure is it just that my search terms that are at fault or is it just that this is not a very well researched and published issue.

References

- Björklöf, A. (2018). The importance of shipboard saunas to seafarers on Finnish vessels: A study on sauna culture on board Finnish merchant vessels today. Theseus.
- Cambridge Dictionary. (2021, 3 29). *Creature Comforts Cambridge dictionary*. Retrieved from Cambridge Dictionary: https://dictionary.cambridge.org/dictionary/english/creature-comforts
- Chan, Y., & Lee, R. (2006). Network size, social support and happiness in later life: A comparatice sutdy of Beijing and Hong kong. *Journal of happines studies*, 87-112.
- Ellis, N., & Sampson, H. (2013). Corporate Social Responsibility and the quality of seafarers accommodation and recreational facilities. *Proceedings of the international scientific meeting for corporate social responsibiliti (CSR) in shipping* (pp. 91-109). Kotka, Finland: Centre for maritime studies, university of Turku.
- Ellis, N., Sampson, H., Acejo, I., Tang, L., & Turgo, N. Z. (2012). Seafarer Accommodation on Contemporary Cargo Ships. Cardiff: The Lloyd's Register Educational Trust Research Unit Seafarers International Research Centre (SIRC), Cardiff University.
- Franzini, L., Caughy, M., Spears, W., & Esquer, M. (2005). Neighborhood economic conditions, social processes, and self rated health in low-income neighborhoods in Texas: A multilevel latent variables model. *Social Science and Medicine*, 1135-1150.
- Maas, J., Van Dillen, S., Verheij, R., & Groenewegen, P. (2009). Social contacts as a possible mechanism behind the relation between green space and health. *Health & Place*, 586-595.
- McWilliams, A., & Siegel, D. (2000). Corporate Social Responsibility and Financial Performance: Correlation or Misspecification? *Strategic management journal*, 603-609.
- Pentikäinen, J., & Jetsonen, J. (2000). *Löylyn Henki kolmen mantereen kylvyt.* Hämeenlinna: Rakennustieto Oy.
- Skönärit ja muut kulkiat. (2020, 11 10). Retrieved from Facebook: https://www.facebook.com/groups/899096506768762/
- Tencati, A., Perrini, F., & Pogutz, S. (2004). New Tools to Foster Corporate Socially Responsible behaviour. *Journal of Business Ethics*, 173-190.