

Performance And Satisfaction Rating Of One State University Website In The Philippines

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Abstract: The Pangasinan State University information website (psu.edu.ph) was redesigned last August 2016. Since then, the website is the main online source of information from the institution. Last June 2016, the rank of PSU website in region 1 compared to other SUC is ranked 6th with a global rank of around 9 million. Thus, this study was conducted to know the satisfaction and performance rating of the institutional website of Pangasinan State University for the SY 2016-2017 after it was redesigned. For the first part of the study, it uses the survey as primary means to gather information from the online visitors, the researcher uses an online form to gather the data. It uses integrated sheets with pivot analysis for testing and data science analytical software RapidMiner to generate the graphical presentation. On the second part of the study, Web analytics tools were used to visualize the performance of the website. The researcher extracted sessions from August 2016 to April 2017 to identify demographics of visitors from the historical data. The researcher also compared other SUC website rankings gathered from historical data for the last 3 months. The result of this study is expected to be good, but there is no perfect website that could satisfy everything that a visitor needs. In this study, it identifies the needs for improvement and importance of maintenance such as continuous customer feedback for continuous improvement. This study is recommended to be continuous and includes social media performance in the future study. This research fall under as NHERA-2 priority research areas in Education and Education Management.

Index Terms: education, website ranking

1 INTRODUCTION

One of the priority research agenda in NHERA-2 under Education Management is institutional development studies, quality, and standards in the context of international rankings and global benchmarking [1] and quality assurance system. Thus, this study was conducted to support the ongoing development of research in the country.

1.1 Background of the Study

The Pangasinan State University domain psu.edu.ph was registered in domain registrar Philippine Network Foundation, Inc. (PHNET) around 2002 [2]. Since then, the website is the main online source of information from the institution. Way back before, the institutional website was updated regularly to cater the information needs of those who prospective students of the university. Building a website could be easier for web developers but maintaining a website especially a corporate website is a big challenge. An updated website is important for clients, and even marketers are responding by developing interactive websites with which they can promote products and services as well as transacts sales [3]. In fact, most organizations can adopt Internet marketing and advertising strategies to produce profitable sales growth and build a brand reputation [4] while for PSU, marketing may not be applicable but building a reputation is important. Last July 2016, the rank of PSU website in region 1 is rank 6 out of 6 SUC with a global rank of around 9million. This study will provide analysis if there is already an improvement in ranking in the region and in the global ranking. As of April 2017, around 81.8% percent of total visitors of psu.edu.ph are from the Philippines [5]. PSU is the first in the region 1 in terms of a number of enrollment, this challenges the web administration unit to cater the needs of information for the students and prospective students.

1.2 Research Objective

The first objective of this research is to determine satisfaction rating of Pangasinan State University website, by means of inviting the readers to participate in the survey and came out with the following information: (1) Profile of respondents (2) Performance rating from the visitors and (3) Satisfaction rating from the visitors. While the second objective of this research is to determine the performance of Pangasinan State University website and will provide the following information: (1) Profile of visitors (2) Performance rating from analytics (3) Comparison of Performance to other SUC in Region 1.

1.3 Scope and Limitation

The survey was conducted started last April 10, 2017, up to the recent date, current results will be included in this study. The metrics of this study is limited only on SY 2017 – 2018 (August 2016 to May 2017). The sessions for analytics and data is from the previous 3 months (January 2017 – March 2017) to be used as a comparison to other SUC website.

1.4 Significance of the Study

This study was conducted to know the satisfaction and performance rating of the institutional website of Pangasinan State University. Its goal is to identify the strength, weakness and other what are the needs to be improved from the perception of visitors and metrics. In this study, it identifies the needs for improvement and importance of analytics and customer feedback for continuous improvement. This will also encourage the next University Web Administrator to conduct a future study and maintain a good reputation of our university website.

2 REVIEW OF RELATED LITERATURE

One of the conducted related studies is the website report of Lancashire County Council. In the study, Knuckey invited all 295 to participate in the survey and found several findings. Based on the findings, two in five respondents had visited Lancashire County Council's website before. Previous users were most likely to have used the site to find out. One of the interesting result that the researcher found was the three-quarters of respondents say they would recommend the site to

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a friend (77%) which was expected also in this research conducted in PSU. Based on the given results, still there are a recommendation that they need to update the look of the website, making it both cleaner and with a greater visual impact, using more colors and graphics if possible. Knuckey is also suggested to renew the research in two years or after improvements to see whether they have been successful [6].

3 METHODOLOGY

This study is divided into two objectives, the first objective is to determine the satisfaction [9] rating by inviting readers to participate in the survey while the second objective is to determine the performance of the website by analyzing analytics from tools over the web.

3.1 Data Acquisition

For the methodology, the researcher conducted the descriptive survey, instead of floating questionnaire physically. The researcher creates an online form with the use of Google Forms (<https://goo.gl/forms/em40Bi2nqKH7dAHn2>). It also uses the Likert scaling of 1 to 5 for most of the questions. While there are around 350 registered users in the mail users of the domain, there are only around 40 users actively using the email. The researcher sent 40 emails to all active users of psu.edu.ph email addresses, while later on the remaining inactive users were also sent an email for the purpose of future research and results of the similar study. To shorten the URL of the Google form, it was embedded in a page of the website (psu.edu.ph/websurvey2017). Social media is also one way to disseminate the survey. The researcher posted the survey in 12 official social media pages of Pangasinan State University which include the University social media page ([fb.com/psuroars](https://www.facebook.com/psuroars)), campus official pages (ex: [fb.com/psulingayen](https://www.facebook.com/psulingayen)), and components' official media pages.



Figure 1 shows the screenshot of posted survey in social media

In order to have a report from the website, last August 2016, the newly designated web administrator install a Google Analytical code with tracking ID UA-82841193-1 to generate reports such as the Audience report and to monitor the performance of the website future reference. One of the important report needed is the Audience reports which provide insight into the demographics of the website audience since the installation date up to the present. The researcher also subscribed to Alexa Insight Plan to access the overall SEO performance grade of the website to determine the presence in the Performance in the search engine. Lastly to compare the website to other SUC website in the region, the researcher subscribed to SimilarWeb Analytics to provide an analytical comparison between the other SUC website in region 1. SimilarWeb's data is available for the last 3 months. The rank is calculated using the quantity of daily unique visitors,

returning visitors and other factors. The output is the site with the highest number of page views will be on top. The data is collected from a subset of internet users using different browser extensions from the user's browser. An algorithm is also available to correct possible manipulated attempts and normalizes the data based on the geographical location of visitors [7].

3.2 Data Processing

Data from google forms will be exported in csv format. After exporting, the CSV will be imported in RapidMiner Studio for generation of the graph. RapidMiner is a data science software for machine learning, deep learning, text mining, and predictive analytics, it is also a powerful visual design environment for rapidly building complete predictive analytic workflows [8] For the second objective of the research, the researcher will generate reports from Google Analytics, Alexa and SimilarWeb to produce outputs. Generated reports will also save in CSV format for future analysis, while most of the reports will save as-is in using built in snipping tool of Microsoft Windows operating system.

4 RESULTS

4.1 Website Satisfaction rating based on survey

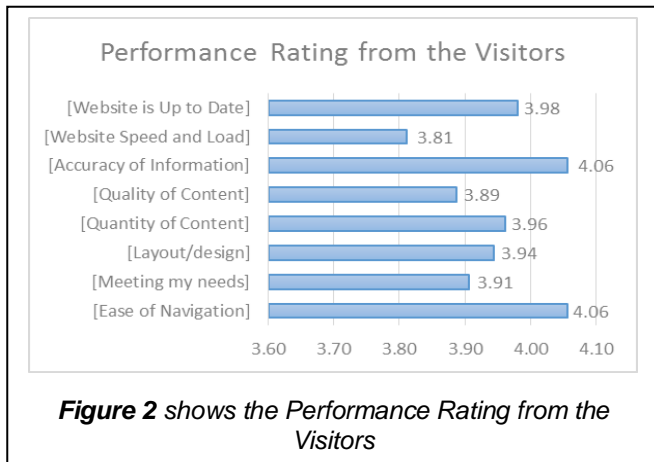
The first result to be presented is the satisfaction rating of Pangasinan State University website, the result is based on the participation of 53 participants gathered using Google forms.

4.2 Profile of Respondents

This shows that 51% of respondents are students who have participated the survey 30% are former students, both 13% are employees of the university while others are 4%, lastly parent got only 2% of the total population. The data show that students will provide most number of participants. The campuses with the most numbers of respondents are Lingayen Campus with 53.6% followed by Bayambang and Urduyeta with 17.9% and 10.7%. The respondents are also asked what made them come to the site, most of them 48.2% of respondents click a link from a social media, 23.2% visited the website regularly, while 14.3% was referred by adviser or faculty.

4.3 Performance Rating from Visitor's Perception

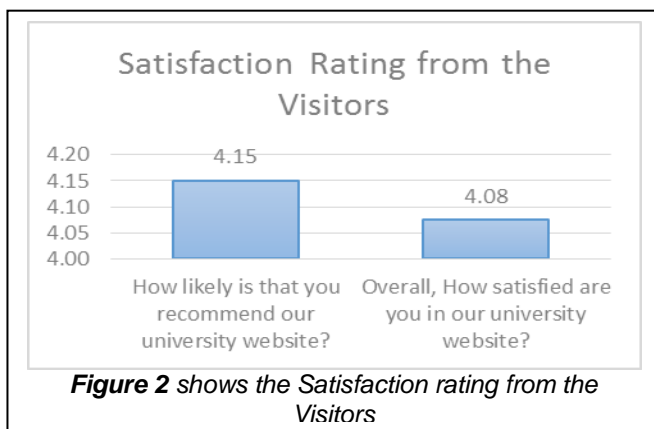
The respondents were ask how was their visit to the website. 55.4% agreed that they found some information they are looking for. Followed by 37.5% found all information they are looking for. While only 7.2% couldn't find the information they are looking for and has the option to comment what information they are looking for. Some informative response that needs to consider is: (1) "Add button which feature is to back to Main Website of PSU when you are in PSU Student Portal", (2) "Please include a list of former faculty regents and student regents. Also past board members". (3) "Please add links to government websites".



To measure the performance of the website, we ask the respondents on what is their perception on site performance. For “ease of navigation”, 41.7% answered “Much Better or 5” as the highest with the mean score is 4.06. For “meeting my needs”, 39.5% answered “Better or 4” as the highest with the mean score is 3.91. For “layout/design”, 41.9% answered “Much Better or 5” as the highest with the mean score is 3.94. For “quantity of content”, 34.9% answered “Better or 4” as the highest with the mean score is 3.96. For “quality of content”, 34.49% answered “Better” as the highest with the mean score is 3.89. For “accuracy of information”, 41.9% answered “Much Better” as the highest with the mean score is 4.06. For “website speed and load”, 37.2% answered “Much Better” as the highest with the mean score is 3.81. For “website is up to date”, 48.8% answered “Much Better” as the highest with the mean score is 3.98. The overall mean score of the website performance based on the perception of the visitor is 3.95.

4.4 Satisfaction Rating

Based on the survey, 60.5% strongly agreed that they will recommend the university website with a mean score of 4.15. Lastly, 45% strongly agreed that they are satisfied in the university website with a mean score of 4.08.



4.5 Website Performance ratings based on analytics

The second result to be presented performance rating of Pangasinan State University website gathered from Google Analytics for the demographics of the visitors, Alexa for the overall performance grade of the website and SimilarWeb for the comparison of performance to the other SUC in Region 1.

4.6 Demographics of Visitors

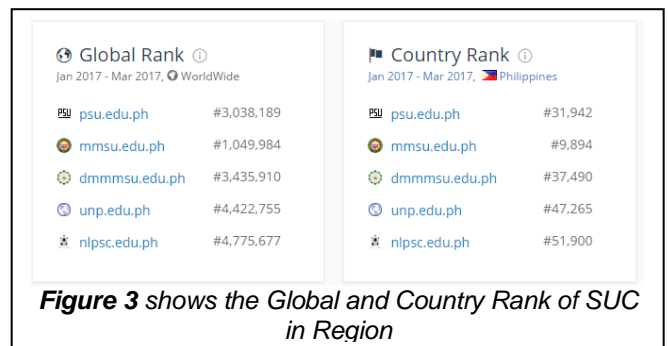
The researcher selected the date range August 20, 2016, to April 19, 2017 for this study. The following results data is presented from 27,248 sessions. Based on the selected range results for data analysis via google analytics from August 20, 2016, to April 19, 2017. Out from the 27,248 active sessions from the university website. There are 19,684 users. This is with an average of more than 5,000 active users visiting the website every month. 72.4% are a new visitor, while the remaining are the returning visitor to the website. There are more visitor from 18 to 34 years old than older visitors with an age 35 above. Lastly, in figure 9, female visitors more often visit the website with 57.3 percent while the male has 42.7 percent of visits. As expected, visitors from the Philippines, the location country of Pangasinan State University, provides 85.64 percent of total visits. The graph also shows the percentage of new users which is 84.31 percent for the Philippines with an average time on the site of 3 minutes and 35 seconds. While Russia provides only 0.61 percent of active users, it is surprising that they stayed longer on the website with an average time of 5 minutes and 15 seconds. Most visitors used their desktop to access the website with a total percentage of 61.84 percent, while mobile and tablet is 33.97 percent and 4.19 percent respectively. Desktop visitors stay longer on the website, followed by tablet users. The visitor of the university website is increasing from time to time. Based on the gathered data, within the range, January and March 2017 gives the highest number of the visitor with 4819 and 4637 respectively. It is also expected to increase as time goes by.

4.7 SEO Performance Rating

Based on the Report Summary for April 18, 2017, of Alexa, the overall SEO Grade of PSU website is 79/100. The report provides personalized analysis and specific recommendations for improving SEO, usability, and more. An SEO performance ranking should not be confused with the speed performance of the website it shows how the website performs well in search engine rankings.

4.8 Comparison of Performance

The source data is from January 2017 to March 2017. The following data are a comparison between psu.edu.ph and other 4 SUC, one of the 5 competitor website was remove due to subscription limitation. It is found that the website of one of the SUC is new and no detailed historical data is available, and the current global rank of the omitted URL is 7,508,100 and has no effect on website ranking of the other SUC website.



Based on the Global ranking and country ranking, PSU rank 2nd from the other SUC Website in region 1. MMSU ranked first from the 5 other SUC in Region 1, while ISPSC is at the 6th place with a global rank of around 7 million. Based on the number of Visits from PSU rank 2nd from the other SUC Website with a total visitor of around 15,300 visits or around 5,100 monthly website visits. MMSU also ranked first with around 53,500 visits or almost 17,700 monthly website visits.

Domain	Monthly Visits	Avg. Visit Duration	Pages/Visit
psu.edu.ph	5,112	00:03:12	2.92
mmsu.edu.ph	17,838	00:04:29	4.60
dmmsu.edu.ph	< 5,000	00:04:35	3.22
unp.edu.ph	< 5,000	00:03:48	4.93
nlpsc.edu.ph	< 5,000	00:01:28	2.23

Figure 4 shows the Comparison and Engagement

Based on the engagement, PSU ranked 2nd in terms of a number of visitors, ranked 4th in the average duration visit, and ranked 4th in the number of Pages visited by the user. It is expected that the average time of visit and page/visit is low because of the new content.

4 CONCLUSION AND RECOMMENDATION

The result of this study is impressive. The University Web Administration team is very proud to present the improvement of our institutional website from Top 6 in Region 1 to Top 2 in the present (April 2017). Despite the result, there are needs for improvement. Based on the survey, more visitors found some (not all), the information they are looking for. The suggestion was made by the researcher to maximize the content of the website, including other campuses in the contribution of content. The researcher suggested renewing the research every year by the next University Web Administrator after implementation of improvements to see whether the website is maintained a good reputation rank.

ACKNOWLEDGMENT

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