Pengukuran Kualitas MOOCs: Studi Empiris Faktor-faktor yang Mempengaruhi Behavioral Intention

(*Assessing The Quality Of Moocs Provisions: an Empirical Study on Factors Influencing Behavioral Intention*)

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INTRODUCTION

A Massive Open Online Course (MOOCs) appeared as new paradigm of modern education with no time and place limitation as well as offering new opportunities for people to interact and access the learning experience. It can be said that MOOCs are phenomenon placing it in the wider context of open education, online learning and the change currently taking place in higher education at a time of globalization of education and constrained budget. Some experts notice the essence of *openness* in MOOCs as democratization of higher education (Fernandez *et al*, 2015; Amo and Maria, 2013). MOOCs would lead to radical change shape future model of higher education and maintain university sustainability (Cooper,2013). Therfore, MOOCs have been sensationalized as the vehicle to forever change and even save higher education.

Online distance learning was firstly introduced in 2008, and today it is in the era of *Post-MOOCs world*. It appears that the number of MOOCs is still increasing but the market will be gradually saturated. Some institutions started questioning learning effectiveness that the student may gain. Effectiveness of MOOCs is often doubted for the completion rate (Onah *et al*, 2014). The high level of dropout is a challenge to ensure that MOOCs have sustainability in the future. Several study results (Bartolome and Steffens, 2015) found that there was a high level of drop out in Spain, where there was only 4% of MOOCs participants who completed their courses. This situation also occurred to the MOOCs participants of Universitas Terbuka (UT/Indonesian Open University), where there was a decrease of the number of participants in 2014 in semester 1 to semester 2 up to 86% (412

partipants). Jordan (2014) reported that less than 7% of MOOCs participants completed their program, and from 58 % of students who actually planned to complete course, only 22% earned certificate. Walker and Lock (2014) acknowledged that MOOCs have high withdraw/dropout rates, the highest completion rates achieved was 19,2% and the majority of MOOCs completion rate is less than 10% (Meyer, 2012). Furthermore, Onah (2014) also stated that although many thousands of participants enroll this course, the completion rate for most courses is below 13%.

The high level of dropout of MOOCs indicates that improvements need to be made in pedagogical and quality level. Low completion rate of MOOCs indicates that educational process that is only up to a level of exposure to content (broadband internet) cannot reach the stage of learning content and verify that the content has been learned (James, 2015). Based on an empirical research, Walker and Loch (2014: 58) found that "...*a common complaint was dissatisfied with material was just transferred directly from an on campus course, with no thought to the online medium…*." Furthermore, Conole (2014: 66) stated that there are different opinions which generate heated debate. The opinions are divided betwen the value and the importance of MOOCs, some said that MOOCs provide opened access to education and hence foster social inclusion, some others cynically suggest that MOOCs are only for area marketing exercise, more about learning income not on learning outcomes. MOOC start-up does not appear to have clear business models. Many institutions participating in MOOCs consider the courses they offer as branding and marketing activities at present. The important point is the phenomenally high drop rates (typically 95-98%) for several experts is not seen as a problem, it depends on the initial goal set by MOOCs. Stracke (2012) stated "if the aim is to give the opportunity of access to free and high-quality courses from elite universities and professor, then high dropout rate may not be primary concern." However, it is widely agreed that it would be useful to improve retention rate of MOOCs by finding out why and at what stage students drop out courses.

The problem of high level of dropout give a clue for the Open Distance Learning (ODL) policy maker to reconsider MOOCs. Adjustments are needed in order to strengthen the function of MOOCs platforms. Some adjustment must be considered on the importance of reassessing the conceptual and theoretical condition to run high quality MOOCs before entering MOOCs

playground. The theme quality of MOOCs implementation becomes crucial especially on the learner point of view. Learning experience in MOOCs is an outcome that can be achieved by participants who demonstrate a behavioral process. Therefore, a study on behavioral intention of MOOCs with the antecedents of perceived satisfaction needs to be conducted. This study was conducted to participants of MOOCs of UT, intended to find out the effect of service quality to perceived satisfaction as well as its impact on behavioral intention. This study can be used as a significant input to enhance MOOCs quality dan can be used as a basis for policy maker to reconsiderate the best method for sustainability of MOOCs. This paper will explain three important points, namely: 1) MOOCs Quality Enhancement: The Importance of Creating Effective Learning Experience; 2) Assessment of Delivering Quality of UT's MOOCs Toward Behavioral Intention, and 3) Future adjustment of MOOCs.

A. MOOCS QUALITY ENHANCEMENT: THE IMPORTANCE OF CREATING EFFECTIVE LEARNING EXPERIENCE

Uncertainty in enhancing learning effectiveness is likely due to quality assurance of MOOCs that is not optimally applied (Wong et al, 2014). According to Rosewel and Jansen (2014), implementing quality assurance still become big problems, for example: 1) the backing of an academic institution in offering MOOCs, 2) the course development process, 3) instruction/teaching and learning, 4) learner supports (availibality of modules and video materials), 4) assessment. According to Conole (2014:68), quality assurance approach puts more emphasize on several important points, namely: teaching as individual performance, monitoring/judgment, the teacher as individual practitioner and documentation. However, the challenge in quality of MOOCs is not only in assurance level, but more on the enhancement of the quality learner experience. This is the key issue that needs to be addressed if MOOCs are going to be valuable and viable learning experience and be sustainable in the future. So, it is quality enhancement that is required to that MOOCs provide more open-up education, and better quality of the learner experience.

Quality enhancement seems to be the best approach in order to be able to learning experience to support lifelong learning. According to Conole

(2014:68), there are some emphasizes on the enhancement approach in order to improve teaching and learning and dissemination of good practice such as: focus on learning, learning as a social practice; focus on professional development, focus to increase collaboration between teachers and across disciplines, emphasis on discussion and active engagement among teacher, participant and course manager. The key point is to create more pedagogically effective MOOCs, which will enhance the learning experience and lead to quality enhancement (Conole, 2013). In this sense, learning design activities framework from Conole (2014) can be used as a guidance : ***Capture – Communicate – Collaborate - Consider* (4 Cs):** 1) capture: relating to resources audit, 2) communicate: mechanism to foster communication, 3) consider: assessment strategy, and 4) combine: overarching views of the design. The 4 Cs of learning design framework aims to provide teachers with guidance and support they need to make more pedagogically informed design decision that makes effective new technology.

Delivering quality of MOOCs from learner experience perspective can be identified from their motivation. Based on empirical study by Belangor and Thornton (2013), there are 4 important findings of the motivation: 1) to support lifelong learning or gain an understanding of the subject matter, with no particular expectations for completion or achievement, 2) for fun, entertainment, social experience and intellectual simulation, 3) for convenience, often in conjunction with barriers to traditional options, and 4) to experience or explore online education. Furthermore, Gamage and Fernando (2015a,b), in their empirical study, identified factors affecting effective MOOCs, namely:

1. The importance of network opportunity: network can trigger the value of relationship built during their online courses.
2. Usability, in term of functionalities in the system, assignment uploading, forum posting, watching video clips, submitting quiz.
3. Interactivity, level of engagement with course and participants is important for successful learning outcome.
4. Assessment factors: participants found that careful attention to pedagogy and the assessment are effective to their learning in MOOC. They often claimed some courses had only quizzes to asses and they found it as less encouraging to an active learner, they prefered learning by doing, where the best way to assess is the overall view in the course.

Based on above explanation, it can be concluded that delivering quality of MOOCs require different approaches with more emphasize on enhancement quality rather than quality assurance. This approach is the best in creating learning experience. Ideally, MOOCs can provide better learning experience to their students and improve students learning performance. Enhancing MOOCs quality needs a time it all depends on the aim of every institution in offering MOOCs to the community. The most importing thing is that quality is a main part for MOOCs sustainability.

B. ASSESSING QUALITY OF MOOCS' UNIVERSITAS TERBUKA: IMPACT OF SATISFACTION TOWARD BEHAVIORAL INTENTION

The quality of MOOCs remains a challenge for Universitas Terbuka (UT). UT which launched MOOCs on March 20, 2014 was managed to attract 3,027 participants. Participants' positive response was due to a unique *"*e-learning experience*"* obtained whereas they do not necessarily have to register in acquiring learning experience in college and only need to access through internet. Until then, UT's MOOCs was well-appreciated by the society. Courses offered in MOOCs increased by 6 programs, namely : Asian studies, Parenting, Public Speaking, Distance Learning, Introduction MOODLE 2.9 and Marketing Management.

The most important consideration for UT to enhance quality is that how MOOCs have to be an effective tool for achieving educational outcome. It means that sustainability of MOOCs really depends on providing benefit for the participants. Outcome learning is the most important aspect in implementing MOOCs (Walker and Loch, 2014). It means, learning effectiveness is the main goal for the institution. Some European universities offer a quality framework for MOOCs based on 8 principles (Creelman and Ehlers, 2014): openness to learners, digital openness, learner-centered approach, independent learning, media-supported interaction, recognition option, quality focus and spectrum diversity. Regarding these indicators, a question arises whether MOOCs offered by different institutions have refferred to these indicators.

This study attempted to assess MOOCs quality from s*ervice quality* aspect. Service quality can give satisfaction which will impact to the will to keep participating actively in MOOC programs of UT as well as recommend the programs to other people. This satisfaction perceived by the participants

is affected by service aspect delivered by intructors/tutors. Service quality is a service quality perceived by participants of online tutorial during the interaction with instructor. There are five dimensions used, namely: *responsiveness, empathy, reliability, accessibility* and *usefulness* are dimensions mentioned by Parasuraman and Zeithalm (2009), Several experts (Anderson and Sullivan, 1993, Hackman *et al*, 2006; Lee and Lin, 2005, Shamsadani *et al*, 2008) are able to prove that there is indirect relationship between service quality and behavioral intention through customer satisfaction. Therefore, it can be stated that quality as an important determinant for *perceived satisfaction* and *intention to use* MOOCs. Eventually, *perceived satisfaction* affects *behavioral intention*. Based on previous concepts and theories proposed by the experts, this study used the following modelling (Figure 1).

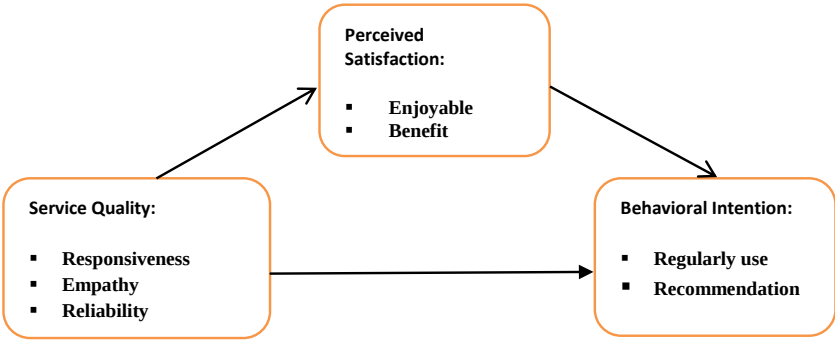

Figure 1. Research Model

This study aimed to determine the extent of the perceived satisfaction level of MOOC participants on the service quality offered by UT. MOOCs' participant satisfaction level will affect the sustainability of MOOCs UT (intention to use). To examine the effect between variables, this study successfully collected data from 135 MOOC participants. By using Structural Equation Model/SEM- Partial Least Square/PLS, the following results was obtained (Figure 2 and Table 1).

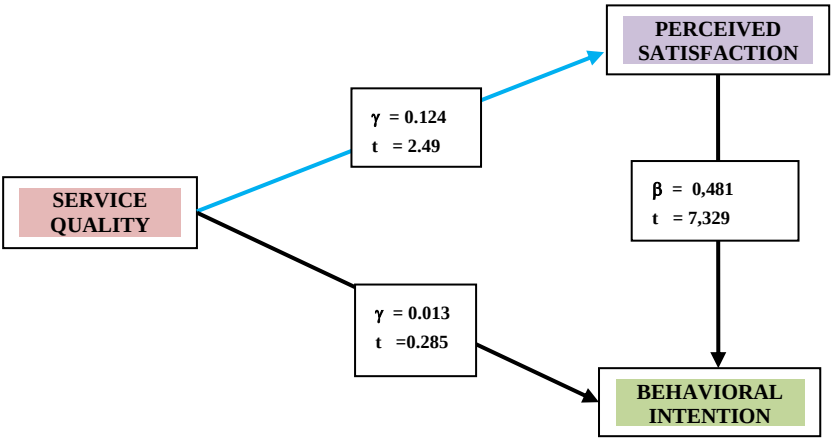

Figure 2. Structural Equation Model

Table 1. Hyphotesis Testing Result

Path Coefficient	Result	R Square	t	table	Conclusion
Service quality → perceived satisfaction	0.124	1.54%	2.49	1,96	Significant (Accept)
Service quality → intention to use	0.013	0,0169%	0,258	1,96	Not Significant (Not accepted)
Perceived service → intention to use	0.481	23,14%	7.239	1,96	Significant (Hypothesis accepted)

Finding:

1. This study successfully proved that the service quality significantly influenced the perceived satisfaction. Service quality that shows how UT instructors provide feedback, respond and always provide solutions to the problems students can significantly affect the perceived satisfaction. It means that service quality can affect the satisfaction of MOOCs-UT participants which is represented by the perceived benefit of helping to increase knowledge, provide online learning experiences and instructor-responsive support at the time of interaction.
2. Service quality did not significantly influence the intention to use Tutorial-UT. This finding indicates that the service quality that showed how instructors provide feedback, respond and always provide

solutions to the problems of the participants did not affect the intention use. It means that service quality did not have an impact on some of the followings: unwilling to reuse MOOCs-UT, reluctant to recommend and encourage the other parties (friends) to use MOOCs-UT.

3. Perceived satisfaction strongly influenced on the intention to use. That is the satisfaction felt by MOOCs-UT participants, which is represented by the perceived benefit of improving knowledge, providing online learning experience and is responsive instructor support during the interaction, overall affected on the intention to use. The intention to use in this study shows a desire to reuse MOOCs-UT, recommend and encourage others (friends) to use MOOCs-UT.

The important finding result of hypothesis testing, where there is no influence between service quality and intention to use, indicates that overall the service quality assessed by MOOCs-UT participants has not been optimal. This finding indicates that the function of the instructors as facilitators and course managers is not optimal. It means they have not been active in terms of providing feedback, responses and solutions to the problems the participants. Service quality that is not optimal often becomes the cause of the insignificant effect on the intention to use, that is in notifying the positive things about MOOCs-UT and reluctance to reuse MOOCs-UT.

Based on the findings mentioned above, there are some suggestions that can be used to enhance the quality of MOOCs-UT, making a positive impact in supporting the learning experiences of MOOCs-UT participants namely:

1. Encouraging instructors to actively interact with participants. Instructors must have a high commitment in serving participants of MOOCs-UT. There needs to be a mechanism for evaluating and monitoring the performance of the instructor whether they have carried out their duties properly.
2. Enhancing the quality of MOOCs-UT, namely: 1) the discussion forum is expected to have tutors to be active to present and communicate, real time interactive may be scheduled, 2) tests and tasks should be updated to be timelier in accordance with the time line made.

3. Particularly with regard to content, it should be improved in terms of quality, namely: current, interesting and interactive issues. It is important that participants stay motivated to follow MOOCs-UT.

CONCLUSION

Challenge for sustainability: adjustment for future moocs – an important remark

Based on the above analysis, it can be said that the issue of quality enhancement isa big concern for Higher Education Institution. Study quality of MOOCs UT indicates that learning experience still needs to be improved, particularly in constucting new platform which can fasilitate participants to collaborate, so that some aspects such as interactivity, knowledge sharing, dan networking can be created. It is known that compared to other online courses, MOOCs are lack of structure, and put awayinstructor or teacher as central role. Quality enhancement has to create learning experience and the question is:what pedagogical and organizational mechanism might be required of MOOC to deliver high quality learning? The recommendation adopting learning design activities framework from Conole (2014) can be used as guidance : ***Capture – Communicate – Collaborate - Consider* (4 Cs):**

1. ***Capture*** (*relate to resources audit*): Possible revenue streams should be identified to sustain MOOCs offering. Cost associated with MOOC offerings like: technical team, teacher/instructor fees for assessment, and certification should be considered. The development of MOOC begins to focus on market segmentation for serving more focused groups of users. So, MOOCs should address development of skills needed by the industry and requirement of lifelong learners.
2. ***Communicate*** (*mechanism to foster communication*): facilitating collaborative network in the platform, the instructors should initiate the culture where students build relationship among other students and facilitate them through learning journey to build network of interest group of study.
3. ***Consider*** (*assessment strategy*): Offering MOOCs that really heavily on peer engagement and assessment to support individual learning process. Some concerns are expressed around cheating and plagiarism with online learning, especially for courses eligible for academic credit.

Combine (*overarching views of the design*): Creating user friendly platform and collaborate with other institution. A sound quality framework should be integrated into course offerings.

Daftar Pustaka

Amo, Daniel., & Maria, Jose.C. 2013. Approaches for Quality in Pedagogical and Design Fundamental in MOOCs. *Teoria de la Educacion Sociedad de la Informacion*. *15,*(1), 70-89.

Anderson, E and Sullivan, M. 91993. "The antecedents and consequences of customer satisfaction for firms", Marketing Science, 12, 125-43.

Bartolome, A and K. Steffens. 2015. Are MOOCs Promising Learning environment?. *Communica Media Education Research Journal*, 44, XXII.

Belanger,V., Thornton, J. 2013. A Quantitative Approach- Duke University's First MOOC.

Conole, Grainne. 2014. A new classification schema for MOOCs. *The International Journal for Innovation and Quality and learning.* 64-77.

Cooper Simon. 2013. MOOCs: Disrupting the University or Business as Usual. *Arena Journal*, 39,(40), 2012/2013.

Creelman, Alastair., Ehlers, U.D., and Ossiannilsson, Ebba. 2014. Perspectives on MOOCs quality- an account of the EFQUEL MOOC quality project. *The international Journal for Innovation and Quality Learning*, 78-87.

Fernandez, M, J.L Silvera and E. Meneses. 2015. Comparative Between Quality Assessment Tools for MOOCs: ADECUR vs Standard UNE 66181:2012. Rusc Universities and Knowledge Society Journal, *12*, (1).

Gamage, D., & Fernando, S. 2015a. *Factors leading to an effective MOOC from participants perpective.* IEEE UBI-Media Conference, Colombi, 15 August 2105.

Gamage, D., & Fernando, S. 2015b. *Quality of MOOCs: a review literature on effectiveness and quality aspects*. IEEE UBI-Media Conference, Colombi, 15 August 2105.

Hackman, D., Gundergan, S., Wang, P. And Daniel, K. 2006. "A service perspective on modelling intentions of online purchasing", *Journal of services Marketing,20*(7), 459-70.

Lee, G,-G. And Lin, H.-F. 2005. " Customer perceptions of e-service quality in online shooping", *International Journal of Retail & Distribution Management, 33,*(2),161-76.

Onah, D., Sinclair, J., & Boyatt, R. 2014. Dropout rates of massive open online courses: behaviroal patterns. *ww2.warwick.ac.uk/fac/sci/dcs/people/research/csrmaj/daniel_onah.*

Parasuraman, A., V.A. Zeithaml & L.L. Berry. 2009. *SERVQUAL : A Multiple Item Scale for Measuring Customer Perceptions of service Quality*, Journal of Retailing, *64.*

Rosewell, Jon., and Jansen, Darco. 2014. The Openup Ed quality label: Benchmarks for MOOCs. *The International Journal for Innovation and Quality and learning.*

Shamdasani, P., Mukherjee, A, and Malhotra, N. 2008. "Antecedents and consequences of service quality in consumer evaluation of self-service internet technologies", *The Service Industries Journal*, 28 (1), 17-38.

Stracke, C.M. 2014. How innovation and competence support quality in lifelong learning. *The International Journal for Innovation and Quality and learning.*

Walker, Lyndon., & Loch, Birgit. 2014. Academic's perception on the quality of MOOCs: an empirical study. *The International Journal for Innovation and Quality and learning.* 53-64.

Wong, Billy TM, Kam C.L, Sam P and Helen L. 2014. Association of Open Universities Annual Conference Asian Association of Open Universities Annual Conference 28-31 October 2014, Hongkong-China.

BIODATA PENULIS

Drs. Yun Iswanto, M.Si, lahir di Klaten, 26 Januari 1958, Gelar Sarjana Ekonomi diperoleh dari UPN Yogyakarta, Pendidikan S2 (Magister Sains) diselesaikan pada tahun 2001 di UGM. Pada saat ini sedang menempuh S3 di Fakultas Ekonomi Universitas Airlangga. Selama berkarir sebagai dosen aktif melakukan penelitian dibidang MSDM dan Manajemen. Hasil-hasil penelitiannya dijadikan sumber untuk menulis artikel yang dipublikasikan melalui seminar nasional dan internasional serta berbagai jurnal. Bersama dengan tim, telah berhasil menulis 2 Buku Materi Pokok yaitu Manajemen Sumber Daya Manusia dan Analisis Kasus Bisnis. Karir akademik terakhir yang dicapai adalah Pembina Tk I pangkat IVb. Jabatan yang pernah diemban adalah sebagai: Pembantu Dekan III (2001-2004); Pembantu Dekan I (2004-2006) dan Dekan Fakultas Ekonomi periode 2006 sd 2013.

Dr. Ginta Ginting, SE., MBA, lahir di Malang 18 Agustus 1960, menyelesaikan S1 Manajemen di Fakultas Ekonomi Universitas Brawijaya. Gelar *Master Business Administration* diperoleh pada tahun 1997 dari Edith Cowan University- Australia. Pendidikan S3 ditempuh di Universitas Padjadjaran lulus pada tahun 2014. Selain berkiprah sebagai pendidik, penulis aktif melakukan berbagai penelitian. Berbagai *event* seminar internasional telah diikuti di bidang Pemasaran, Manajemen Strategik dan Manajemen Pendidikan. Melalui berbagai penelitian yang telah dilakukan, sejumlah artikel telah dapat dipublikasikan diantaranya terindex Scopus/Elsevier. Penulis pernah mengikuti *fellowship exchange program* di Open University Shanghai-China untuk melakukan *joint reserch* dengan judul*"Comparative Study of MOOCs between Universitas Terbuka and Shanghai Open University".* Pada tahun 2016 terpilih menjadi dosen berprestasi pertama di