Employing Technology Acceptance Model (TAM) to Determine the Acceptance of Diagnostic System for Cervical Cancer Screening in Developing Countries

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Abstract

In recent times, contemporary hospitals continue to become smart by automating their administrative processes using up to date equipment and incorporating latest technological principles into their activities. It has been seen over the years that the area of medical diagnosis systems require the use of diagnostic systems as they have been proven to have led to increased diagnostic accuracy and relieve experts from routine tasks. The easiest way to prevent women from suffering and dying from Cancer of the cervix is through early detection of the Human Papilloma Virus hence the recommendation of Visual Inspection with Acetic acid (VIA) to be done in developing countries by the World Health Organization. There is need for systems that can assist health workers in confirmation of results gotten after VIA tests has been done on patients to reduce misdiagnosis and overtreatment but such systems need to be developed by putting users need into consideration. Evaluating users’ acceptance of such systems is one of the most important metrics in ensuring the success of such systems as it helps to predict users’ willingness to accept or reject them.
The Technology Acceptance Model (TAM) was used to evaluate the level of eagerness of users to use such systems and the measuring instrument was analyzed using SPSS version 21.0. A total of 150 respondents participated in this study with a response rate of 86%. From the analysis, it was realized that a total of 80.7% of the sampled population subscribed to the use of diagnostic expert systems, 89.1% believed that the use of such systems will have a positive impact and 87.6% were willing to use it. The results of TAM indicated the willingness of users to use such systems, the need to repeat the study after executing the system in real life was suggested as users intention could change, and also to identify factual usage of the system. The work brought to light the impact of putting users’ needs into consideration first since this increases user acceptability which could eventually lead to the success of such diagnostic systems at large.

References

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Index Terms
Keywords

Expert System, Technology Acceptance Model, Cervical cancer