Exploring Modern Technology Adoption in Zimbabwe's Beauty Therapy Industry.

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Abstract: *Background: New technology adoption has been recognised as vital in the stability and growth of a country's economy. Globally the beauty therapy industry has embraced technological advances. In Zimbabwe basic beauty therapy that does not use modern complex technology is prevalent.*
Objectives:
1. To establish technologies being used in Zimbabwe's beauty therapy industry.
2. To examine the perceptions of beauty therapists on new technologies in the beauty therapy industry.
3. To explore strategies that may be adopted to improve the adoption of new technologies in Zimbabwe's beauty therapy industry.
Methods: *Using purposive and convenient sampling, thirty one beauty therapist experts were identified. One hour long in-depth interviews were held and recorded.*
Results: *Participants viewed modern technology adoption as critical for the industry. Non-accessibility of modern technologies, lack of supportive government policies; non-existence of a beauty therapy association, lack of proper beauty therapy education and under research were found to hinder modern technology adoption.*
Conclusions: *The industry is ready to adopt modern technology and there is need to realign the macro environment to make it supportive for the adoption to be real.*
Keywords: *Beauty Therapy, Technology Adoption, Cosmetology, Dermatology, Zimbabwe.*

I.   Introduction

Technology is defined as the application of knowledge to the practical aims of human life or to changing and manipulating the human environment using specific methods, materials and devices to solve practical problems.[1] Technology may be adopted to solve problems in industry, commerce and society. Technology adoption is a process that begins with awareness of the technology and progresses through a series of steps that ends in appropriate and effective usage of the technology.[2] Thus technology adoption can be looked at as an evolutionary process where the old is upgraded or replaced by new to align the solution to emerging problems or solving old problems in a better way.

Globally the beauty industry deals with therapeutic treatments and skin and nail care for a wide range of disorders and conditions. These disorders and conditions include acne, eczema, psoriasis, corns and calluses, birthmarks, superfluous hair, ingrown nails, dry flaking, split nails among others[3]. Therapists also help in solving nervous tension problems. Different communities have used different technologies in dealing with these problems. However with globalization and more research in this field more and more common technologies are now being used internationally as people under go beauty therapy.

Beauty has been defined as the quality or feature that gives pleasure to the mind or senses whilst therapy is viewed as the healing power or quality.[4] Thus beauty therapy can be generally defined as the use of practical skills and knowledge to provide remedial treatments for people to achieve out comes that will enhance and improve facial and body conditions for the overall wellbeing of an individual.

The beauty industry is mainly made up of small and medium sized businesses with the majority employing less than twenty people most of whom are females[5]. Most of the beauty therapists run their own businesses whilst some are employed by cosmetic companies to work in departmental stores which have sections specialising in skin care and cosmetics. The industry provides a wide range of treatments which make use of different technologies, each of which is designed to provide specific benefits to the part of the body that is being treated and for the enhancement of individual's personal beauty.[5]

In Zimbabwe beauty therapy has progressed from pre-Independence (1980) era when it played a significant role in the expression of beauty and sexuality among individuals and identity of the various Zimbabwean tribes.[6] Zimbabwean women used to practice beauty therapy at home using primitive means such as hot pressing using either salty hot water or hot stones and hot wet cloth for massaging and easing pain and tension. People used to walk bare footed hence experiencing foot massage.[6]

Products such as aloe vera (gavakava) and sap from Bidens pilosa (tsine) were used for cleansing and improving the face as facial cleansers. Coloured soils and crushed baked bricks were used for make-up while ashes as antiseptic. Steam from hot stones and hot springs were used for facial and body steaming, charcoal for eye lining and sap from Hyphaene ventricosa (murara) for nail colouring. Body brushing was being done using Luffa aegyptiaca (chishambo). Castor oil (pfuta), peanut oil and sap from wild fruits such as Strychnos spinosa (matamba) were adopted as face and body moisturizers. While river mud was used to care for pregnant mothers and new born babies since it was known to have a positive impact on skin appearance. Tools such as sharp stones and tree thorns were used for body art[6].

From 1980 to date a number of products such as milk, eggs and honey were introduced for skin cleansing. As time went on the uptake of known international beauty products for skin care increased. Formal businesses emerged offering hand and foot treatments (manicure and pedicure), facial and body treatments[7]. New methods such as depilation and waxing were used to remove superfluous hair. Swedish massage manipulations such as effleurage, petrissage and friction were adopted to ease stress, tension, headaches and muscle pain. Skin toning, rejuvenation of aged or damaged skin and slimming was done using sea mud[8].

In Zimbabwe like many other developing nations the adoption of modern technology is still very low[9,10,11]. Thus the use of modern technology is lagging behind and consequently under researched[12,13,14]. Without dynamic modern technology adoption, the beauty therapy industry in Zimbabwe will fall short in providing current and future skill demands and services[15]. This will result in poor gross domestic product contribution and high unemployment rate. Therefore the study sought to explore mechanisms that may be adopted to optimize the adoption of modern technology in Zimbabwe's beauty therapy industry.

II. Materials and Methods

The study made use of qualitative methodology which sought among others the systematic description or exposure of salient aspects of a phenomenon, object or situation.[16] A population comprising of all beauty therapists was identified. A target sample of beauty therapy experts was selected using the following four screening aspects where an individual with any three of these would qualify:-

 i. At least 10 years practicing experience in the beauty therapy industry;
 ii. Runs a beauty therapy organization that employs at least 10 people;
iii. Have at least a Higher National Diploma in beauty therapy or its equivalency;
iv. Teaching in beauty therapy for at least 10 years,

Guided by the requirements of the saturation concept.[17] Using purposive and convenience sampling in-depth interviews lasting at least one hour were held at the respondent's convenient time and place. Data collected was cleaned and themed soon after each interview. After twenty three complete interviews no new themes emerged. To confirm eight more complete interviews were done and no new theme emerged prompting the researchers to conclude that they had reached the saturation point.[17] The data collection was ended after interviews with thirty one respondents.

III. Results and Discussion

Respondents' characteristics

Females constituted 96% of the respondents whilst males made up only 4%. These results are consistent with the international trends in gender representation in the beauty therapy industry.[5] Thus Zimbabwean industry is just like the others worldwide. However this disparity may be emanating from the traditional settings that favoured the boy child over the girl-child in providing funds for education.[18] In this context the socio-cultural inclination left girls to pursue beauty therapy since by then it was considered to be for the uneducated with the majority having to pursue education on their own long after leaving formal school. As a result of the disparity in education more men than women were exposed to technology. It could be argued that cultural socialisation and lack of women exposure to technology can be contributing factors to modern technology adoption in beauty therapy industry. As a result the cultural ingraining has made women shy to adopt technology in Zimbabwe than men.[19] It was also noted that girls are far more unlikely to initiate technology adoption even if when their knowledge and skills equals that of the boys.[20] As result women are at risk of becoming increasingly marginalized in the knowledge society, where much more than access to and use of technology is at stake.[19]

When technologies are introduced into environments that are characterised by gender inequality they tend to be ineffective.[18] Thus gender disparity may be attributed to lagging behind of modern technology adoption. These arguments are supportive of earlier findings from studies on gender, knowledge, societies and technology use in Africa and other developing countries.[21]

Technologies being used in Zimbabwe's beauty therapy industry
Beauty Treatments
The study revealed that the most widely recommended technologies in use in Zimbabwe were artificial nails, desincrustation, French manicure and false eyelashes accounting for 85%. The least recommended technologies were fish pedicure, floatation therapy and electrolysis with 15%. In South Africa modern technology usage is at 55% whilst globally it is 80% from 2009.[22,23] These results indicate that technologies that have been in use since around 1980 are the most recommended in Zimbabwe. These are old and obsolete rendering them ineffective and inefficient.[15] These results clearly show that, modern technology adoption in Zimbabwe is still very low and this is consistent with other developing countries.[9,10,11]

Beauty Therapy Industry Trends
The beauty therapy industry in Zimbabwe is characterised by high demand for skincare treatments (24%).This demand for skin care treatments by the majority of women in Zimbabwe is attributed to increased awareness for skin care for beauty motive by women. The results are in line with earlier findings that points out that skin care for beauty purposes is increasing in Africa especially among females.[6] In a bid to meet the demand for skincare therapies some beauty therapists are recommending modern technologies like Microdermabrasion which is safe, non-abrasive and non-surgical for overall skin freshness and health looking glow.[24,25]
Other trending therapies were anti-aging therapies (23%), slimming treatments (22%), false eyelashes (21%) and least demanded was electrolysis (10%). The low demand for electrolysis can be attributed to sophisticated techniques required to perform the treatment. Electrolysis method requires great skill to insert a needle in each hair follicle thus fully skilled therapists with a highly developed sense of touch that enables them to probe to the correct depth on each insertion are required.[8]

Beauty therapist's perceptions of new technologies in beauty therapy industry
Respondents opinions in technology issues.
The study revealed that the majority of the respondents (80%) value the acceptance of new techniques in beauty therapy industry as a way of enhancing their job performance. This view supports earlier work that affirms that the use of technology by an individual can enhance his/her job performance.[26] Thus perceived usefulness tends to have a consistent influence on future individual use of technology.[27] New technologies are also believed to be more effective and efficient.[15] In support of this view 75% of the respondents are in unison with the view that the use of modern techniques in beauty therapy industry is ideal. While 55% of the respondents are in agreement with the view that clients can benefit from the use of modern technologies. So efficiently adopted technology can help beauty industry to become more efficient.
In addition 55% of the respondents indicated that modern technologies are user friendly. This view supports the TAM model's characteristic of perceived ease of use. Perceived ease of use affirms that using a particular system/technology would be free of effort.[26] So those innovations that are perceived to be better will be adopted more rapidly than others will.[28]
In contrast 35% of the respondents indicated that modern beauty technologies are not accessible in Zimbabwe. Accessibility of an innovation is critical to individuals as it creates an opportunity for individuals to try it out hence facilitating the adoption.[28]
The other 25% respondents indicated that Zimbabwean society and beliefs do not promote the adoption of modern technologies. While another disparity is that 25% of the respondents specified that the beauty therapy work environment in Zimbabwe is not conducive for acceptance of modern technologies. However this is against social systems[28]. Society, beliefs and work environment should be interrelated units, which can engage in joint problem-solving and accomplishing of a common goal[28]. So modern technology adoption need to be supported by favourable social norms, culture and work environments.

Technology adoption trends
When asked about their risk taking elements using technology adoption categories ranging from innovators through early adopters, early majority, late majority to laggards, majority of the respondents 70% indicated that they are early majority. Whilst only 5% are innovators and 5% are laggards. These findings are in line with international trends showing a normal distribution curve where there are few innovators, a lot of adopters and few laggards[28]. Thus the majority of the respondents who are in early majority category and late majority tend to adopt an innovation after they have established a proven track record. The early majority tend to be slower in the adoption process and seldom hold positions of opinion leadership in a system than the innovators and early adopters[28]. Thus beauty salon owners and managers who lack knowledge and appreciation of modern technology approach an innovation with a high degree of scepticism hence hindering the adoption of modern technologies.

Strategies that may be adopted to improve technology adoption in beauty therapy industry
Government involvement

Key theme to emerge on strategies was the need to have government involvement through the right policies that would promote modern technology adoption in beauty therapy industry. These results are in line with results from other related studies that spelt out that government through policy formulation can promote innovation and technology adoption[29]. The government being the central administration has a role to play in technology adoption. This can be achieved through policies addressing curriculum development that should consider beauty therapy (Cosmetology) as a practical subject in schools to promote its appreciation and growth.

Another key policy should address importation duty on beauty therapy equipment and tools making it favourable for adoption of modern technology. Other policy is on licensing where government through local authorities should only award beauty salon operating licenses to qualified beauty therapists and close all unlicensed beauty salons as they are compromising standards and hindering modern technology adoption.

Another policy issue should address quality control issues in beauty therapy colleges. Those colleges without licenses, right expertise and modern equipment essential in preparing therapists to match global industry trends should be closed. Research output should be made mandatory so that lecturers keep abreast with contemporary trends in beauty therapy industry.

Association

Views of the respondents were that there is need for an association of beauty therapists in Zimbabwe. This association will set standards of operation for its members at a level that will give the best therapy to the clients. Such standards will cover qualifications, technologies in use and salon ergonomics among others. The presence of the association will enable beauty therapists and clients appreciate the importance of modern technology adoption to human survival needs. This will be done through; awareness campaigns, workshops, refresher courses, seminars, product lounges, beauty shows and exhibitions. This view of establishing an association in the beauty therapy industry conforms to other regional countries like South Africa[22]. For instance the beauty therapy association in South Africa work in partnership with beauty therapists to develop and implement approaches that helps in the adoption and utilization of modern technologies that ensures quality beauty/spa experiences to all spa goers.

Stakeholder collaboration

Last on strategies was the need to have stakeholders collaborate. These stakeholders include beauty salon owners, beauty therapists, government and the general public who are the consumers. The more these are made aware of the benefits of modern beauty therapy technologies they start demanding them and using them hence increasing the adoption in the process.

IV. Conclusions and implications

The study was carried out to investigate technology adoption in Zimbabwe's beauty therapy industry. The results of the study showed that, Zimbabwe is lagging behind in technology adoption mainly because of lack of technical expertise to use the modern technology, inaccessibility of the technology and general lack of appreciation of the technology by the various stakeholders. In conclusion the researchers noted that the adoption of modern technology in beauty therapy industry is lagging behind. However such adoption can only be achieved through government involvement, formation of an association and collaborative effort from all stakeholders. The researchers therefore recommend that government create an environment conducive for technology adoption through the right education and support systems for the beauty therapy industry. If this is done, it is expected that the adoption of modern technology in Zimbabwe will increase and hence more quality beauty therapy products would be delivered to customers for the good of the people and the nation.

References

[1]. Merriam-Webster (2013). Technology-definition. Available at http://www.merriam-webster.com/dictionary/technology; accessed 12/01/2013.
[2]. Bridges to Technology Corp (2005). What is Technology Adoption? Available at http://www.bridges-to-technology.com/page21.html; accessed 07/12/2012.
[3]. Gawkrodger, D., & Ardern-Jones, M. R. (2012). Dermatology: an illustrated colour text. Elsevier Health Sciences.
[4]. Articlesbase, (2013). Definition of beauty therapy. Available at http://www.articlesbase.com/hair-articles/definition-of-beauty-therapy-4140148.html; accessed 12/01/2013.
[5]. Embody, (2012). Health and Beauty Therapy Guide. Available at http://www.embodyforyou.com/Treatments; accessed, 12/01/2013.
[6]. Rukangira, E. (2001). The African Herbal Industry: Constraints and Challenges. Paper presentation at the natural Products and Cosmeceutcals conference in Nairobi, Kenya. Unpublished.
[7]. Simms, J. (1998). A Practical Guide to Beauty Therapy for NVQ Level 2, (2nd edi.). Stainley Thornes Publishers Ltd. Cheltenham.
[8]. Cressy, S. (2004). Beauty Therapy Fact File, (4th Ed.). Heinemann Educational Publishers: London.

[9]. Baumuller, H. (2012). Facilitating agricultural technology adoption among the poor: The role of service delivery through mobile phones. Unpublished; University of Bonn.

[10]. Jack, B. K (2011). Constraints on the adoption of agricultural technologies in developing countries. White paper, Agricultural Technology Adoption Initiative, J-PAL (MIT) and CEGA (UC Berkeley) Working paper.

[11]. Apulu, I. and Latham, A. (2009). Information and Communication Technology Adoption: Challenges for Nigerian SMEs. TMC Academic Journal, 4(2):64-80.

[12]. Aker, J. C. (2010). Dial "A" for Agriculture: Using Information and Communication Technologies for Agricultural Extension in Developing Countries. Unpublished ,Tufts University: Medford.

[13]. Vergragt, P. J. (2006). How technology could contribute to a sustainable world. Boston:Tellus Institute.

[14]. Yang, Y. and Fang. X, (2005). Technology Adoption in E-Commerce Education: A Case Study. Information Systems Education Journal, 3 (40):18-37.

[15]. Jones. G, (2011). Globalization and Beauty: A Historical and Firm Perspective. EURAMERICA, 41(4): 885-916.

[16]. Bryman, A. (2004). Social science research methods, (2nd. ed.). Oxford University Press: London.

[17]. Bowen, G. A., (2008), Naturalistic inquiry and the saturation concept: a research note. Qualitative Research, 8(1), 137-152

[18]. Muinde, F. N. N. (2009). Investigation of factors affecting the adoption of information and communication technologies for communication of research output in research institutions in Kenya. A thesis submitted in fulfillment of the requirements for the degree of Doctor of Philosophy in Information Systems. School of Information Management Victoria University of Wellington , Wellington: New Zealand.

[19]. Huyer, S. and Hafkin, N. (2007). Engendering the knowledge society: Measuring women's participation. Montreal, Canada: Orbicom, the International Network of UNESCO Chairs in Communication.

[20]. Volman, M. and van ECK, E. (2002). Gender equity and information technology in education: The second decade. Journal of Educational Research, 71(4).

[21]. UNESCO (2005). Towards knowledge societies. UNESCO: Paris.

[22]. Gathanju. G, (2010). South African Spa Industry Matures. Available at http://www.skininc.com/spabusiness/global/92317099.html?page=1; accessed on 05/12/2012.

[23]. Garrow. J, (2009). Global Spa Benchmark Report: Spa Industry Trends. Available at http://www.IntelligentSpas.com; accessed on 05/12/2012.

[24]. Jegasothy S. (2001). Deeper microdermabrasion techniques for mild, moderate and severe acne scarring. Cosmet Dermatol, 14: 49-50.

[25]. Gimlin, D. L. (2002). Body: Beauty and Self-Image in American Culture. University of California Press: California.

[26]. Davis, F. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13:319–340.

[27]. Lippert, S. K. and Forman H, (2005). Utilization of information technology: Examining cognitive and experiential factors of post-adoption behavior. IEEE Transactions on Engineering Management, 52:363-381.

[28]. Rogers, E. M. (2003). Diffusion of innovations. Free press: New York.

[29]. Ederington, J and McCalman , P (2009). Technology Adoption, Government Policy and Tariffication. Manuscript.