

Interface Platforms Usability for Gold Marketing: A Study of Selected Gold Miners in Migori County- Kenya

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Abstract– Gold marketing like any other modern product marketing should be done in a global based platform, to ensure suitable buying with best prices possible in a timely way. However, gold marketing in developing countries Kenya inclusive still rely on middlemen marketing strategies, despite of having advanced and efficient marketing information technological opportunities as the trend has not picked well in some of the developing and third world nations. The objectives of this study were to: (i) examine the type of interfaces currently being used by miners to market gold; (ii) identify type of calls the miners are able to make to create awareness that they have gold to sell; and (iii) find out the ability of the miners to send and retrieve text messages using mobile phones. The findings of the study showed that there exist various types of user interfaces for gold marketing with the most popular being Audio phone calls (37.7%). The findings further indicated that a good number of gold miners still rely on the tradition of waiting for brokers at the mines (22.6%), to buy their gold what is called on site traders. On the other hand, it was realized that, the miners' ability to send and retrieve text messages using the mobile phones was at (94.34%). The study recommends a need to design an interface model to enable integration of mobile phones (USSD code technology) as a suitable interface for gold marketing in Migori County to promote timely marketing with better pricing, ease of use and access of the interface by marketers. This will lead to adoption of Business to Business (B2B) marketing strategy whereby gold miners sell their gold to buyers who also sell to middlemen or manufacturing industries.

Index Terms– Interface Patterns, Platform, Mobile Based Marketing and Online Marketing

I. INTRODUCTION

WEB-BASED marketing is a trend of an online shopping. This is the most emerging business use of the World Wide Web with the ultimate goal to buy and sell goods and services over online shopping platforms. Tiago and Tiago [10] describe web based marketing as the coming revolution in marketing thought and strategy. This is witnessed by growth of web at a dramatic pace and leading to significant changes in the market behaviors of customers and businesses. This brought and interest for examination of the attitude of the customer and businesses towards the interface patterns such

as Co-creation, universal availability, use of temporal shifts, open pricing and a move toward bricks to clicks. This change shows the consumers' increased desire to have easy to access, convenient and portable touch points to carry out businesses that have been traditionally dependent on interactions with local traders in physical markets. Therefore, as the web is fundamentally changing, and will continue to change, then businesses and firms in Kenya need to start developing thought and practice of web based gold marketing thought.

Zhang, Kushwaha, Steenburgh and Weitz [13] identify Non-store retailing as another interface platform. The trend is dominated by the Internet and is seen as an important strategy for many marketers such as manufacturers, brand owners, and retailers entering emerging markets. This trend has become a common practice by consumers in developed markets for a number of reasons such as the ability to obtain variety of retail goods and services and convenience in e-commerce emerging markets. Similarly, in gold marketing this area can be a business opportunity in terms of new ways of reaching emerging markets with potential lines for future marketing strategies relevant to the study such as: E-commerce, M-shopping, Internet, Online shopping, among others.

E-Commerce sites have the ability to personalize customer experiences by supporting and encouraging them to purchase goods and services from their platforms. Nkwo, Nwokeji and Ndulue [7] explain that, applying the technique of system personalization is beneficial in that the system could learn from a customer and recommends personalized products which the customer may need, it also gives users the privileges to subscribe to personalized ads, set system preferences such as the language for browsing, shopping and communication on the platforms. In Western Countries, this technique has become a common practice among E-Commerce platforms such as Amazon and E-bay sites which are also emerging markets of Africa.

In other studies, E-commerce is described as a platform where merchants and customers come in a same platform to purchase and sell in visually and get the physical product. Ibna Saeed [5] this has revolutionized the way consumers and producers conduct businesses in the new era of technology, making web based marketing interface models the fastest

growing industry and common shopping platforms such as: JUMIA, Konga, Jiji, Amazon.com, and alibaba.com among others. These are seen as emerging business models related to products marketing and strategic marketing approaches that can be applied to improve usefulness of existing web based marketing interfaces model. Similarly, virtual reality and real time marketing scenarios can be borrowed by gold marketers as business to business (B2B) and business to customer (B2C) markets in Kenya.

Ekundayo and Odunaike [2] identify that, in the 21st Century it is more convenient to conduct business both at the national and international level as the E-commerce provides an alternative mode of conducting commercial transactions making the technique fuel economic development of most countries. Going by this trend, the global continual use of web based interface platforms can be applied in gold marketing by designing a web based user interface model that enhance the effective online marketing of gold in Kenya.

Adoption of Smartphone's as interface platforms in developed countries such as North America and Western Europe have witnessed extraordinary growth over the last few years. Becker [1] further explains that the trend is also noticeable in Brazil, Russia, India and China economies. Coming up of smartphones technology has lead equity markets in these countries lose control of investors making mobile marketing become an area to watch. Some of the marketable areas which have resorted to high use mobile phones to purchase products include economies such as India, China and regions of Asia Pacific. The statistics indicate that, more than 60% of total online investment products perform in positive or negative correlation with other assets. From the foregoing discussions, it is apparent that web based marketing of products and services are gaining strong grounds even in the third world countries like Kenya.

They further argue that, as much as web-based markets of tomorrow may have little resemblance to the markets of today, this being so as a result of the entrance of reverse marketing, effective content marketing strategies targeting the at end to end users to enhance competitiveness by attracting and retaining customers. These indicators show that, introducing web based gold marketing in Migori County Kenya, will keep businesses informed on how they can thrive and survive in a competitive business environment.

Mobile phone platforms are also used in financial services. Van der Boor, Oliveira and Veloso [11] carried out a study on this to know the origin, development and innovation process of this technology. The findings showed that, 85% of these innovations originated in developing Countries, while 50% of all mobile financial services were invented by the users meanwhile 45% by the producers, at least 50% of all mobile financial services were pioneered by users, approximately 45% by producers, and the remaining were jointly developed by users and producers. It was realized that, the factors contributing to high level of this innovations in developing Countries was attributed to high levels of need, availability of flexible platforms which promotes increased access to information and communication technologies. This same trend can be applicable by developing similar mobile phone financial platforms for gold marketing in Kenya.

Gamberini and Valentini [3] indicates that, with arrival of computers today, their applications can be found in many fields of studies such as usability of the personal computer and software into the home, the idea of designing a product to conform to the psychological and physiological need of customers has become everyday language in marketing platforms. Likewise when web based marketing is done on mobile phones it will improve gold marketing just like any other product and services marketed through mobile shopping. However, despite the mentioned benefits, little is known why they have not adopted the web based marketing opportunities for gold marketing.

Further, there is need study the impact of these innovations on consumer loyalty, health sector and service business. This will reveal the customers closeness in association with information technology systems usage Hong and Lee [4] and quality towards customer satisfactions. Therefore, successful usage of web based marketing platforms require the integration and coordination of three complementary aspects of the Internet marketing efforts, as well as favorable organization and technology environment and innovative approaches, Wang & Fesenmaier [12]. Hence successful implementation of web based gold marketing interface model amongst gold miners of Migori County requires a combination of effort from mining community and the government to perceive the new model before use.

The last few decades have seen increasing international attention being paid to artisanal small-scale mining (ASM) Odhiambo and Ongo [8] even though for a long time the beneficial role of ASM in society and its economics in many developing countries are often undermined, yet its negative impacts are discussed more on official press coverage, research articles and publications. Migori - Kenya belongs to the Eastern region characterized by highly complex alterations of spots of high and low density Ichang & MacLean [6] the mines are located in the sugar belt wetlands of Western Kenya and are mostly at the heart of the African tropics.

As a result of technological advancement, new communication technologies like mobile text messaging can be improved to allow online communication of marketers in a more but simple manner of merely sending and retrieving text messages with any type of mobile phone. The USSD code technology can be used that supports the integration of the multiple professional and personal roles we assume by making us "telephonically present" at times and in places that once preempted such communication, Palen [9]. Adoption of web based marketing strategies in gold marketing will have a lot of benefits to market players. This brings us to the purpose of developing and testing the usability of web-based marketing user interface model amongst the selected gold miners of Migori.

II. METHODOLOGY

Descriptive Survey Research with the backup of Software Engineering Methodologies was adopted in this study. Target population of 391 persons was surveyed from Macalder Sub County of Nyatike in Migori County. The research design was used to examine the existence of interfaces that are currently being used to market gold amongst the gold miners of Migori

County Kenya. The survey highlighted various existing interfaces and the extent to which they are being used in gold marketing.

III. DATA ANALYSIS

Data was analyzed using Statistical Package for the Social Science (SPSS) and Microsoft Excel. Then based on the objectives, scientific approach of developing a system was used to analyze and describe the design and development process of web based marketing interface model for gold marketing in Migori County. The findings of data analysis were presented using descriptive statistics comprising of frequency tables and charts. The data was analyzed using Statistical Package for the Social Science (SPSS) and Microsoft Excel. The data was then interpreted based on research objectives and questions.

IV. RESULTS AND DISCUSSIONS

A) Methods used by gold miner to create awareness that he/she has gold to sell

The results presented eight categories of various types of user interfaces that exist in products marketing and the indication(s) whether gold miners in Migori County use or don't use them in order to create awareness to buyers that they have gold to sell.

Further, the research findings found out that there are various types of user interfaces currently being used for gold marketing. The most popular interface used was Audio phone calls used to inform buyers that they have gold to sell (37.7%) this implies that marketing platforms such as mobile phones existed though were majorly used for audio calls. Second to audio call interface, a good number of gold miners still wait

for brokers or on-site traders at the mines to buy their gold (22.6%).

Third interface was verbal, where gold miners/sellers who simply rely on their fellow miners by asking if they are aware of any buyer (18.7%). Those who are able to wait for brokers at the mines and at the same time make phone calls to get gold buyers are (7.5%), Internet users (5.7%), enquiring from other gold miners if they are aware of any buyer, waiting for brokers at the mines and making phone calls to get buyers (3.7%) and finally only (1.9%) is able to combine use of internet and other types of interfaces (multimedia interfaces) for marketing of gold.

On the other hand, very minimal percentage used video calls and internet. From the findings, there is need to improve audio call technology to modern techniques of web based marketing through Video calls for timely marketing, ease of use, cost effective, flexibility and ubiquity while connected to internet.

The study examined the existing user interface models that are currently being used for gold marketing amongst the miners of Migori County Kenya in order to identify their capabilities in the modern marketing trends and how they can be improved. The researcher proposed the solution to these old techniques by designing and developing a suitable web based user interface model for gold marketing in Kenya.

B) Type of calls the gold miners are able to make to create awareness that they have gold to sell

The results of the study revealed that phone call was one of the most popular interfaces being used by the gold miners to reach out for buyers. This made it necessary to analyze the various types of phone calls that are used in products marketing. The findings indicated that the type of calls the respondents were able to make included (Table II):

Table I: Type of user interfaces currently being used by gold miner(S) to market gold

Method	Frequency	Percent	Cumulative Percent
Asking other gold miners if they are aware of any buyer	10	18.9	18.9
Using Internet	3	5.7	24.5
Waiting for brokers at the mines	12	22.6	47.2
Making phone calls to gold buyers	20	37.7	84.9
Waiting for brokers at the mines & Making phone calls to gold buyers	4	7.5	92.5
Asking other gold miners if they are aware of any buyer, Waiting for brokers at the mines & Making phone calls to gold buyers	2	3.8	96.2
Internet, Waiting for brokers at the mines & Making phone calls to gold buyers	1	1.9	98.1
Internet, Waiting for brokers at the mines, Asking other gold miners if they are aware of any buyer & Making phone calls to gold buyers	1	1.9	100.0
Total	53	100.0	

Table II: Type of calls

Type	Percent	Cumulative Percent
Audio call	54.7	54.7
Audio call, Conference call, Skype video call, WhatsApp call & Viber call	3.8	58.5
Skype Video call, WhatsApp call, Viber call	1.9	60.4
Audio & Skype Video call	1.9	62.3
Audio, Skype Video call & WhatsApp call	3.8	66.0
Audio call, WhatsApp call & Viber call	1.9	67.9
Audio call, Skype video call, WhatsApp & Viber call	1.9	69.8
Conference call	5.7	75.5
Skype Video call	1.9	77.4
None of the above	1.9	79.2
Audio call & Conference call	1.9	81.1
Audio call & WhatsApp call	15.1	96.2
Audio call, Conference call & WhatsApp call	3.8	100.0
Total	100.0	

Table III: Respondents able to type and send the message using his/her mobile phone

		Respondents able to retrieve message from his/her mobile phone		Total
		Yes	No	Yes
Respondents able to type and send the message using his/her mobile phone	Yes	94.34%	0.0%	94.34%
	No	0.0%	5.66%	5.66%
Total		94.34%	5.66%	100.00%

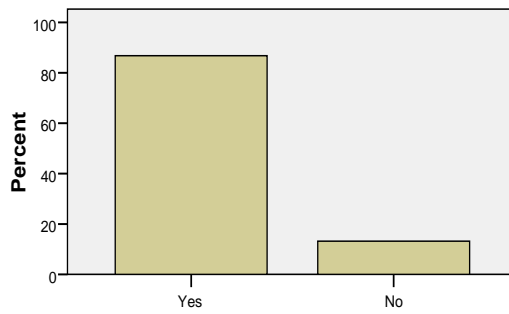


Fig. 1: Mobile Phone Messaging

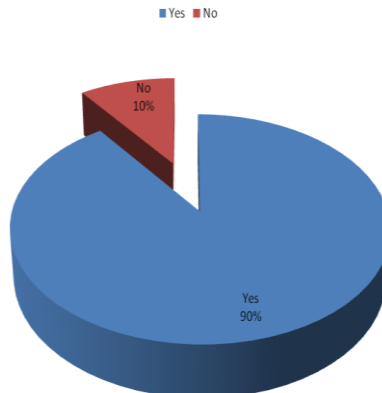


Fig. 2: Ability to send and receive text message

The results showed that, Audio call dominates in the use of interfaces at (54.7%) followed by a combination of audio call, WhatsApp (15.1%) and the rest of the calls (1.9%). It's clear that, with the availability of mobile phone, it is necessary to develop a marketing model that uses mobile phone technologies that makes it easier for the miners to market gold on an online platform like any other modern product marketing.

C) Respondents ability to send or receive text messages with their mobile phones

The suitability of mobile phone in gold marketing would be enhanced by the use USSD codes technology which is capable of running in any type of mobile phone. This was further supported by the research findings which showed the ability of the gold miners to retrieve or send messages using their mobile phones.

The results in Table III and Fig. 1 showed that the majority of gold miners are in possession of mobile phones and they have knowledge of how to retrieve text messages likewise capable of writing and sending text messages via their mobile phones (94.34%). However, only (5.66%) had challenges using the mobile phone. Further indications from Fig. 2: also revealed that, 90% of selected gold miners are able to send and receive messages using their mobile phone. However, 10% of them are unable to do the same.

These results imply that, a mobile phone interface platform which is text message based should be developed for gold marketing amongst the miners of Migori County.

V. CONCLUSION AND RECOMMANDATION

The study examined the existing user interface that are currently being used for gold marketing amongst the miners of Migori County Kenya in order to identify their capabilities in the modern marketing trends. Some of the user interfaces currently used for gold marketing are: Making audio phone calls, on-site buyer/traders by waiting for the buyers at mine site, verbally asking for the fellow miners if they are aware of any buyer and low internet search for buyers.

From the findings, it was noted that, there was need to improve on the current gold marketing interface with integrated web based gold marketing platform which is easy to use, access, cost effective, flexible, better prices with timely marketing. The specific focus being on products online marketing interface model services and trends to provide integration of computational online services that can communicate and coordinate with each other to perform online marketing of gold in mobile environment.

The research was significant since it had an effect of globalization of gold marketing by customization of computing interfaces such as mobile phone by creating a platform where gold marketing players can adopt the use of mobile phone services to capture data, store, and process and disseminate information on gold market access. With improved access to information on market access using navigational inter links and extra links, gold miners and buyers are able to competitively choose and sell their gold

products at better prices in a timely way leading to better returns and improved livelihoods.

The study also noted that small scale gold marketing is not regulated in any law in Kenya and buyers purchase the product at any price. At this point, it is worth noting that there is need for the Kenyan Government to put in to place mining laws to curb mining malpractices.

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