Extending the C2C Modeling Architecture by User Centered Engineering to Entail the Efficient Marketing on Social Media in OMAN

Title: Extending the C2C Modeling Architecture by User Centered Engineering to Entail the Efficient Marketing on Social Media in OMAN
Proposal ID: BFP/URG/ICT/19/215
Type of project application: Undergraduate Research Grant

Current Status: Approved For Funding

Collaborative Partners:

Total number of Collaborative Partners:0

Expected Outcomes:

	Omani	Non Omani
Post-Doc	0	0
Technician (Bachelor Holder)	0	0
Technician (Master Holder)	0	0
Technician(PhD Holder)	0	0
Postgraduate(Master)	0	0
Postgraduate(PhD)	0	0
Undergraduate	2	

No.Expected Publications: 1

No.Expected Patents: 0

Additional KPIs:

Sector Name

Information Technology and Communication

Team Leader

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Faculty Mentor

Faisal, Dr. Mohammed (mohammed.faisal@nct.edu.om) (Data Sciences (ENGINEERING AND TECHNOLOGY)) (Software Engineering and Programming (ENGINEERING AND TECHNOLOGY))

Other Team Members

Al-Aghbari, Mazen (spt26s1815899@nct.edu.om)

Technology Readiness Level (TRL)

1 – 3: Knowledge Development (usually public organizations) e.g. basic research & lab-based experiments

Priority Area

Other

Executive Summary

The research proposal having three different executive verticals, the first vertical is going to emphasize the user centered engineering to extend the better accessibility about the business related posts in the social media applications to sale or buy the products. Currently the social media platforms such as Facebook, twitter and other similar applications is not directly providing the service or business related posts, these posts are treated like a normal posts so chances are very high such posts will be overlooked because the posts are not static it will move up and will be hided, the proposal will focus to enhance the better usability by organizing such posts on a special corner on the dashboard based on the category of the product.

The second vertical is full of challenge to use data mining and data analytics to get the insights in order to auto filter the business related posts as soon as such posts arrived and enforce to arrange the special corner for the better usability. Data mining techniques will be used to mine these posts after fetching such posts in real time. Machine learning techniques will be required to implement to predict the expected time to sale the particular product based, the machine learning model will be developed based on the available historical data for individual trendy hashtag.

The third and last vertical will be focused on the data visualization of the above mentioned insight. The proposal will help the new entrepreneurs to increase the sales for his/her business purposes. The main concepts behind the proposal is, the availability of the users on social media is very high, for instance if a customer wants to buy a used car then only he will open the OLX app but the same user possibly will be more active on some social media application where another person has posts the advertisement about his car to sale, the needy users can have the look the advertisement which suits his requirements can buy the product. In this way customer to customer model will have an extension to boost for the better organized and more efficient business transactions on social media.

Introduction and Statement of the Problem / Project

Social media has become covet platform for the researchers specially the Data Science researchers. Statistics says majority of people using the social media most of the time compare to other applications. The proposal is going to move around to boosting business over the social media platform to incorporate efficient and effective marketing in OMAN.

The nobility of the proposal to equate business posts and other social posts by using the data science and big data analytics. No one can deny there are plethora of applications to do online business/marketing but people will use it only when they need it. Unlike that on social media civilians are often active and using it for the purpose of chatting, reacting on others posts or posting their photos etc. So it’s quiet efficient way to use the social media platform for the marketing because of the much better availability of the users.

Currently, people are using the social media for posting their business advertisements but it’s not organized and concise. The proposal will be executed in order to auto finding such advertisement/marketing/services post by using data mining and data analytics and fascinating those posts in a separate dashboard, somewhere on the corner of the social media screen. The proposed work will also emphasize to do the projections of the most popular hashtags, so the users can take then decision on which hashtag they can push the posts for the business purposes. In this proposal twitter platform will be the first targeted platform to implement. Final would like to propose a new business model by extending the customer to customer (C2C) modelling.

Literature Review and Analysis of Related Work

The continuous and rapid growth on communication channel over the ICT, social media is one of the platforms used in different purposes for the marketplace of business engagement crossing end-user expectations where it is attracting customers themselves to enrich customer

to customer model due to factors of price and experience leading for increasing customer to customer revenue , “ However, social media can drastically alter consumers’ behavior and their brand preferences “ “This rapidly evolving landscape has left managers at a loss, and what they are experiencing is likely the beginning of a tectonic shift in the way brands are managed [1]

Social media is persuasively continuous rich source ground with large and reserved data, through which facts and insights can be monitored and explored for current and future perfect utilization, as studies support that “Analyzing social media, in particular, Twitter feeds for sentiment analysis, has become a major research and business activity due to the availability of web-based application programming interfaces (APIs) provided by Twitter, Facebook, and News services. [2]

As a reason for using social media for customer interaction and services and products exchange and business sales; in order to support the widespread and the great profit, and by attracting the wide and multi-lateral public in different countries so , with the rapid adoption of social media by consumers, it is increasingly important for retailers to investigate and consider their use and

adoption of social media, and to know which activities are most effective. This can differ by product line and geographical location. Further, for complex products such as wine, with specific consideration of higher price segments, consumers frequently search for more information before

Purchase.[3]

The tools used to measure user interaction of the various social media platforms are therefore that the tools may not be up to the accurate results, but it can be an indicator to set up comprehensive follow-up guidance, but as in the following case study found that “The study found that the most influential comments focused on the following: usage experience issues, information requests, business practice issues and comments about product launches and developments [4]

however, the customer has direct communication with enterprises spread overall social media that can be found in reality activity in the comments, tag, and inquiries. “These positive effects offset the observed increases with regard to the number of service requests and the higher overall service cost. Thus, we ultimately find customers who interact with the brand on social media to be more profitable.[5]

Objectives

-Mining the business/service oriented posts on the social media platform.
-Mining the trend hashtag based on OMAN.
-Predicting the required selling/transaction time based on the historical data.
-Utilizing data analytics to prediction the time.
-Enhancing the usability/friendliness by adopting user centered engineering concept.

Research Methodology [Describe your Implementation Plan,Time-line and Milestones]

The following milestones will be mapped and executed based on the CRISP methodology.
· Choosing a platform which is allowing us to use and fetch public data
Time Line: 2 Months
· Finding the business/service oriented posts from social media
Time Line: 2 Months
· RapidMiner/Flume will be used to fetch the post in order to filter the marketing posts.
Time Line: 2 Months
· By using data science application find the trendy hashtag.
Time Line: 2 Months

· Prediction of expected time to sale the items will be done by using Machine learning.
Time Line: 2 Months
· Design the template for the dashboard to visualize the above insights.
Time Line: 2 Months

Benefits to Oman

-A comlete business can be set up to sale the product by using social media platform
-The proposal will boost the business in order to rotat the money within the Oman
-It also help Omani scholars/College students to do the effective business as a part time job with the associations of the local entrepreneurs.
-Contribution to enhance the enterpreneurship activities in Oman

Academic, Scientific and/or Innovation Significance

-Enriching and increasing the capacity of user experience of customer to customer model in OMAN.
-Profiling the transactions /history of social media posts for users references.
-Extracting the insights from the trendy hashtags in Oman.
-Support users to have real time advised on selling or purchasing the items.
-Market basket analysis can be done based on the association rules for the promotion purposes.

Is this project going to result in a patent?

Patent Review (e.g. any previous similar patents in literature, the potential of this project to result in a patent ...)

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Budget Summary:

Data Collection/ Analysis	100
Dissemination	450
Equipment and Facilities	100
Travel (Local Travel)	850

Duration in months

12

Overall TRC Requested Funding (OMR)

1,500.00

Submission ID: