



# GLOBAL JOURNAL OF ENGINEERING SCIENCE AND RESEARCHES MARKETING USING ARTIFICIAL INTELLIGENCE CHATBOT

Divya Bhargavi Medi<sup>\*1</sup>, Govardhana Manognya<sup>2</sup>, Dr.B V Ramana Murthy<sup>3</sup> & Mr.C Kishore Kumar Reddy<sup>4</sup>

\*1,2,3,&4Stanley College of Engineering and Technology for Women, Hyderabad

## **ABSTRACT**

Technology is creating customer choice, and choice is altering the marketplace. Gone are the days of the marketer as salesperson. Gone as well is marketing that tries to trick the customer into buying whatever the company makes. There is a new paradigm for marketing, a model that depends on the marketer's knowledge, experience, and ability to integrate the customer and the company. Six principles are at the heart of the new marketing. The first, "Marketing is everything and everything is marketing," suggests that marketing is like quality. It is not a function but an all-pervasive way of doing business. The second, "The goal of marketing is to own the market, not just to sell the product," is a remedy for companies that adopt a limiting "market-share mentality." When you own a market, you lead the market. The third principle says that "marketing evolves as technology evolves." Programmable technology means that companies can promise customers "any thing, any way, any time." Now marketing is evolving to deliver on that promise. The fourth principle, "Marketing moves from monologue to dialogue," argues that advertising is obsolete. Talking at customers is no longer useful. The new marketing requires a feedback loop--a dialogue between company and customer. The fifth principle says that "marketing a product is marketing a service is marketing a product." The line between the categories is fast eroding: the best manufacturing companies provide great service, the best service companies think of themselves as offering high-quality products. The sixth principle, "Technology markets technology," points out the inevitable marriage of marketing and technology and predicts the emergence of marketing workstations, a marketing counterpart to engineers' CAD/CAM systems.

**Keywords:** chatbot, marketing, media, platfor.

#### I. INTRODUCTION

We use a large variety of goods and services in our daily life. These include items like toothpaste, toothbrush, soap, oil, clothes, food items, telephone, electricity and many more. How do all these goods and services reach our home? Obviously the business houses who produce the goods and services have to ensure that these are to be sold, and so they have to make the consumers/users aware of their products and place them at points convenient to the consumers. This involves a number of activities such as product planning, pricing, promotion, use of middlemen (wholesalers, retailer etc.) for sale, warehousing, transportation etc. All these activities taken together are termed as Marketing. In this lesson, we will learn about the concept of marketing, its importance, objectives and functions. This also implies that the manufactures assess the needs of the consumers, their tastes and preferences and plan the products accordingly. Not only that, they also ensure that people are aware about the product and its features. All these activities are said to be part of marketing function of any organisation. Thus, marketing refers to the process of ascertaining consumers' needs and supplying various goods and services to the final consumers or users to satisfy those needs. Basically, marketing is the performance of business activities that direct the flow of goods and services from producers to consumers or users. The modern concept of marketing considers the consumers' wants and needs as the guiding spirit and focuses on the delivery of such goods and services that can satisfy those needs most effectively. Thus, marketing starts with identifying consumer needs, then plan the production of goods and services accordingly to provide him the maximum satisfaction. In other words, the products and services are planned according to the needs of the customers rather than according to the availability of materials and machinery. Buying and assembling activities as a part of marketing refer to buying and collection of required goods for resale. This function of marketing is primarily relevant to those business organisations that are engaged in trading activities. In the context of manufacturing organisations, buying and assembling involves buying raw materials and components required for production of finished goods. As you know marketing starts much before the actual





ISSN 2348 - 8034 Impact Factor- 5.070

production. The marketeers gather information regarding what are the needs of the consumers and then decide upon what to produce. So, the task of marketing begins with planning and designing a product for the consumers. It can also be done while modifying and improving an already existing product. For example, now-a-days we find much better soaps and detergent powders than we used to get earlier. Similarly, we have many new products introduced almost on a regular basis. It is a process of collecting and analysing information regarding customer. Packaging involves putting the goods in attractive packets according to the convenience of consumers. Important considerations to be kept in view in this connection are the size of the package and the type of packaging material used. Goods may be packaged in bottles. Branding means giving an attractive name, symbol or identity mark to the product to make a product different from others so that it is known by that name or symbol or mark. For example, Surf is the brand name of a detergent powder produced by Hindustan Unilever Limited (HUL). Similarly, you must be familiar with brands like Colgate for toothpaste, Lux for soap. Pricing involves decisions regarding fixation of product prices, keeping in view the product costs, the capacity of customers to pay, and the prices of the competitive products. It is an important decision as it influences the sales and so also the profits. So pricing has to be done very carefully. Promotional activities include advertising, personal selling, sales promotion and publicity. All promotional activities involve communication with the existing and prospective customers whereby they are made aware of the product, its distinctive features, price, availability etc. The objective of promotional activities is to motivate the customers to buy the product. Distribution refers to those activities that are undertaken for sale of products to the customers and the physical transfer thereof. The first aspect i.e., sale of product involves use of middlemen such as wholesalers and retailers whose services are used for making the products available at convenient points and helping in their sale to the ultimate consumers. The second aspect i.e., physical transfer involves warehousing and transportation of goods from the point of production to the point of sale or the consumer .Standardisation refers to development of standards for production of goods with respect to shape, design, colour and other characteristics. If products are standardised, customers are able to identify a product and its characteristics very well. So goods can be sold by sample or description. Standardisation helps in promoting the sale of the product by increasing consumers' confidence in the product quality. Grading involves separating products into different classes on the basis of certain predetermined standards relating to size and quality. Grading is required in case of agricultural, forest and mineral products such as cotton, sugar cane, iron ore, coal, timber, etc. Selling is an important function of marketing whereby the ownership of goods and services is transferred from the seller to the buyer for a consideration known as price. To initiate and complete the process of selling, the seller has to inform the prospective buyer about availability of goods, the nature and uses of products, their prices and the needs of the customers that may be effectively satisfied by the product. In the process, he arouses customers' interest in the product and persuades them to buy it. Storage refers to holding and preserving goods from the time of their procurement or production till the time of their sale. In other words storage involves making suitable arrangements for preserving the goods till they are bought by the consumers and delivered to them. Warehousing is synonymous to storage but is normally used for large-scale storage facility for goods and commodities. You must have seen cold storage where vegetables like tomato, cabbage, potato etc. are stored to be consumed throughout the year. In marketing it is essential to store raw material and finished goods to be used later by the company for production or for resale. Transportation refers to the physical movement of goods from one place to another. In marketing, transport as an activity refers to physical movement of raw materials. Standardisation refers to development of standards for production of goods with respect to shape, design, colour and other characteristics. If products are standardised, customers are able to identify a product and its characteristics very well. So goods can be sold by sample or description. Standardisation helps in promoting the sale of the product by increasing consumers' confidence in the product quality. Grading involves separating products into different classes on the predetermined basis certain standards relating size quality. Grading is required in case of agricultural, forest and mineral products such as cotton, sugar cane, iron ore, coal, timber, etc. 6. Branding Branding means giving an attractive name, symbol or identity mark to the product to make a product different from others so that it is known by that name or symbol or mark. For example, Surf is the brand name of a detergent powder produced by Hindustan Unilever Limited (HUL). Similarly, you must be familiar with brands like Colgate for toothpaste, Lux for soap and so on. 7. Pricing the Product Pricing involves decisions regarding fixation of product prices.



ISSN 2348 - 8034 Impact Factor- 5.070

## II. LITERATURE SURVEY

The fashion industry is one of the most dynamic and thriving industries in the world. It combines a vast variety of activities, from the proper production of products, the transformation of prime materials, and the creation of articles of clothing, shoes, and accessories, among others. One of the skeletal supports of this sector is the point of sale. The retail market accounts for 1.1 billion dollars a year. Together with the massive production of food and beverages, the smaller clothing markets and complementary productions are in an ideal position to become one of the foremost profit generators within this business, and marketing or cloth store is free.

The market is characterized by various large textile groups, with Inditex (Spain) at its helm. Following it are H&M (Sweden), Gap (USA), Fast Retailing (Japan), and VF (USA). These and other large multinational corporations —L Brands, C&A, Primark— enjoy the majority of the profits of this industry, with hundreds of thousand of establishments, leaving smaller, independent clothing stores on the sidelines. These businesses have been left to use their creativity to put plans into action in order to draw clients into their locales.

Currently, there are numerous examples that can allow you to increase sales and to face the competition. We gathered 5 marketing strategies for this post that you can apply to your clothing store, a "fashionista" version of how David can face Goliath and be victorious in a direct confrontation.

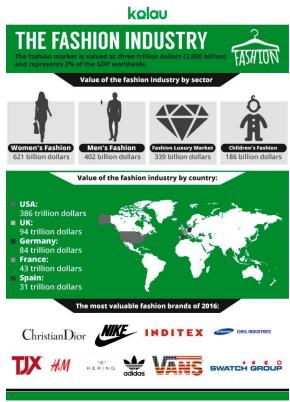


Figure:2:Types of brands in marketing

### 2.1:MARKETING FOR CLOTH STORE

It's essential to open **EFFECTIVE lines of communication** with your target market. If you don't ensure that your messages reach them, how can you possibly expect that your efforts for expanding your sales will be noticed? In





ISSN 2348 - 8034 Impact Factor- 5.070

reality, it's impossible. When talking about these methods of communication, it's important to keep several tools in mind:

Offline, at the very point of sale. Create signs to ensure that offers reach customers. This advertises promotions and adds value to your products in your own establishments. It's normal for some of these to get passed over but they shouldn't be omitted for that reason since the investment is minimal and the results are more than sufficient. Here, we will look at an example of a British chain, TopShop, that always uses a thousand and one ways and methods to say that it is having a sale or that one of its cousins is in order to attract its clientele. They use a simple technique with large lettering, simple typography, and a clear message like, "Mid-Season Sale. Up to 50% off on selected lines." Those who put themselves on display will end up bringing in more customers.

Online. Having an online presence is essential in such a competitive sector as the textile industry. It's true that not all businesses can or should be online, but if it's within the abilities of the business to open themselves up to the internet, they shouldn't pass up the opportunity to explore this outlet. Currently, within countries such as the United Kingdom and the United States, between 14 and 19% of total profits for national clothing businesses comes from online channels, much more outstanding than other countries, such as Spain, where it just reaches 10%.

intimate line <u>Adore Me</u>, which started with its own resources and, thanks to a capital fund risk, has been able to give its A New York eCommerce that has known how to make itself known among the great companies of the world is the brand a push. This is one example of a small retail business that has grown rapidly through the use of the virtual world, where it is essential to thoroughly know the public and to be knowledgeable on how to reach it. Upon visiting their website, it is possible to quickly verify their marketing techniques that they use in order to impact the user.

2.2:MARKETING FOR COTHING STORE STRATEGY-OFFINE EVENTS TO DEVIRTUALIZE: Whether you have an online store or not, organizing parties and activities is a way to attract both faithful clients and those that don't know what they can find in your store. The recommended course of action is to prepare an agenda in which events are laid out at the beginning of the year so that events can be planned with time, using the proper marketing tools, and taking advantage of efficient communication channels. The most appropriate times to 'make noise' within the fashion industry are the following: Kick off of a new season (spring, summer, autumn, winter) with a showroom and a fashion show where some of the star pieces from the company are shown to the public. When sales start and during tax season, reach consumers with an invitation to a special celebration where you can offer added value, not just a promotion or sale price. Celebrate anniversaries or special dates in the life of the business, such as when the business turns another year older or if there is a desire to commemorate a concrete moment that is important to the business. Take advantage of these occasions to invite those that follow you and cast a spotlight on your brand. Create special sales to liquidate clothing that is leftover from a season that is almost over or create events surrounding specific pieces. One day could be declared "blazer day" with discounts for those that want this indispensable wardrobe piece or you can make "purse weekend" with promos for these accessories.

## 2.3:DISPLAY:

Window displays can be defined as the art that adequately presents the articles that an establishment has for sale through a combination of objects and materials. The power of how window displays are done should never be underestimated and solid proof of this exists in the fact that, when one travels, a favorite pastime is to walk by the "golden walkways" or the main urban roads where one can view the display windows of the great firms. What we can see today in the windows of Loewe, Prada, Louis Vuitton or Hermes are authentic works of gold, art in a pure form, which can be verified with the following image.





ISSN 2348 - 8034 Impact Factor- 5.070



Figure 2.1: display of dresses

## 2.4 PACKING AND MARKETING

Just as important as the last point, you want to offer a global shopping experience to the user that is fully satisfactory. You hook our clients with a bold window display, they come inside and find that the inside of the business invites the consumer to lose themselves amongst the clothes and accessories on the racks, they decide to take something home and then the **packaging** enamors them more! There are very interesting tendencies that exist that push for the use of **cardboard** and **recycled paper** to wrap up the products. Another idea is to **include a few sweets** to the bag and a business card. Of course, a**coupon** that can be used for a discount on future sales or offering them a fashion magazine can help, too. If special dates such as Valentine's Day and Christmas—which we already reviewed a similar example in point 2#—be sure to include festive packaging elements related to the holiday. This is something that customers will appreciate.

These are some simple ideas for clothing stores that can be used to improve your point of sale marketing strategies. They are details that will cause the consumer to remember you, speak well of you, and likely return for a repeat experience. It is within these small things that the charm of a business resides.

One of the **packaging techniques** that has most surprised us is one used by Heidi Klein, a luxury bathing suit line. The packaging is beautiful, with both style and elegance, and no one would say that these exquisite boxes had a bathing suit inside, right? They appear as though they hold precious jewels or high-quality leather



551

ISSN 2348 - 8034 Impact Factor- 5.070

### III. PROPOSED CHATBOT

#### ARCHITECTURE OF NODE-RED

In the node-red first select the input node inject and give the name as hello, Now from the output node select the debug node and give the name as msg.payload.

- ➤ Connect the output of hello to input of msg.payload .The msg called successfully injected will appear on the screen now deploy.
- Now again successfully inject "hi". In the IBM cloud ,go to resource list and create resource. Now drag the assistant from IBM Watson through search filter.
- Edit the injected node hello as "hi" and click on done.
- Now, connect the assistant node to msg.payload and hello. hello input to input of assistant and output of assistant to input of msg.payload by changing the username as apikey and giving password.
- ➤ Change the service endpoint and workspace from edit function node copy the function and by clicking on the done it will be done.

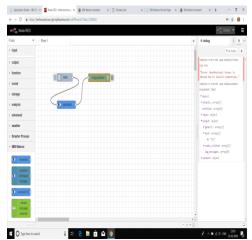


Figure 1: NODE-RED Flow1

- Now drag the function called output parsing and connect it to output of the assistant an dinput of the msg.payload.Now,go to deploy and that go to manage palette.
- After completing the above process go to user settings nodes and select the palette. Now install the node-red dash-board and click on install.
- In the node properties give group as home size as auto and example as text and click on done. Now, drag the form from search filters and click the assistant input to form output. Create a new function and connect the new function to form output to input of assistant. Now, again select the msg.payload=msg.payload.text; from the functions.
- Now, the two text blocks onto the screen and connect the text blocks with the name you to the output of input parsing and otherone with the name bot to the output of output parsing.



ISSN 2348 - 8034 Impact Factor- 5.070

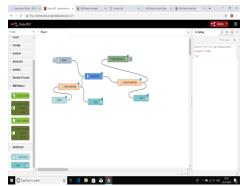


Figure 2:NODE-RED Flow 2

- Now, go to debug and give label as bot and you. Value format as{{msg.payload}} and click on done. After the above process is done create a new block and give it as form. On the right side of the screen click on dashboard and go to layout and click on home. Now, deploy the total block.
- Now, drag the audio out by searching it in the search filter and connect its input to output of output parsing. Now the again deploy the total block.
- Dash board is on the rightside of the screen and go to edit audio out node. Give TTS voice as shown in the figure and click on done.
- After the audio out is connected drag a switch .Edit switch node by giving data base as marriage events. Now, connect the one output of switch to marriage events and other to bot. Now again connect the output of marriage event to input of bot. Debug the above function and edit the function node which is dragged on to the screen by giving the name as database parsing .After the name is given as database parsing then select the function msg.payload=msg.payload events;
- In the node properties give the name as subscribe and click on done. Connect the database parsing to events clock output and output of database parsing to bot input. Now, againdeploy the function. Now dialogie box default occurs click on submit.

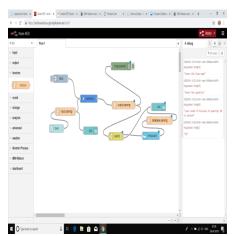


Figure 3: NODE-RED Flow 3

- Now login into your facebook account by giving the user name and password. Then go to the and create a page
- And give the page name as chatbot. Now, select the(...) in the page and click on view as page visitor. By clicking on the visitor we can visit the page.
- You can build a bot that automatically posts content into groups, responds to questions with extra information or takes action when mentioned in comments on a post.





[ICITAIC-2019] ISSN 2348 - 8034 Impact Factor- 5.070

- You can also build bots that can converse with people in Work Chat, providing information in real time, or handling requests with structured conversation elements like quick replies and persistent menus.
- > While in groups, bots are able to consume and share information across a group of people asynchronously, bots in chat are best for direct real-time interaction with a single person or defined group of people.
- For instance, a chat bot can be used to send important reminders or notifications to someone based on an upcoming event—like an interview or a meeting.

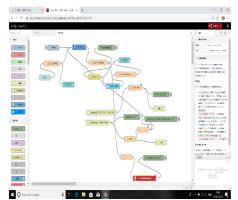


Figure 4:NODE-RED Flow 4

- > After visiting the page go to settings on facebook developers and generate a page, Now, the events selected will be completed.
- In the new page subscription give the URL, verify token and select the required columns and click on verify and save. In the new page subscription select the subscription fields as messages and messaging. Postbacks and click on verify and save.
- Now a one more block from facebook page will be presented and select the page and attach it to the nodered and see weather the page is correctly on the flow.
- Paste the flow-2 below the folw-1 see that both the flows are not one on other. Go to layout and click on home add the name, function and click on done.

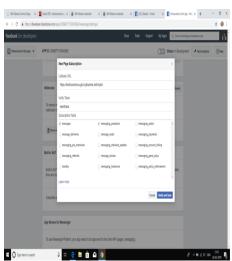


Figure 5: Facebook Integration





ISSN 2348 - 8034 Impact Factor- 5.070

## IV. RESULTS AND DISCUSSION

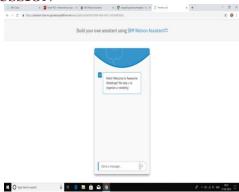


Figure 6: Welcome message

In the IBM Watson assistant we can create our own assistant .The assistant responds in the following manner. Firstly the greetings are given to the assistant bot when we open the preview link it directly gives that hello welcome to awesome marketing we can help you to organize marketing. Then we need to give the input as I would like to plan a marketing .Then bot asks to give the brands. It gives some brands among them.. Then the bot gives the all information about the dress which we selected before like cost, capacity and also google link.

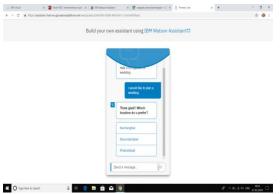


Figure 7: Output for first question

We need to select the options as per our necessity. Now ,when all the details required for the bot is given, it confirms our bookings at so and so place and we have to give the offers the bots gives the offers like 15% next we have to give the products the bot shows the image next with colours the bots give the colours and with price, size, discount. the bot responds as per our questions, by responding to all the above we can easily make the shopping successfull.

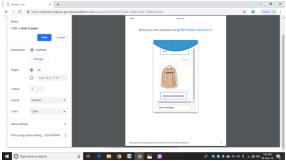


Figure 8:output for second question







ISSN 2348 - 8034 Impact Factor- 5.070



Figure 9: Output for third question

## V. CONCLUSION

We designed and implemented a chatbot that provides personalized counseling service head-to-head. The chatbot assist producer to consumer in dialogues. The service communicates with a user through dialogues and conducts communication chatbot. By using this chatbot anyone can know the promoted product's details such as brand, size, colour, discounts, offers etc. It is easy to communicate with a counseling chatbot rather than a human. We have created this chatbot with the easy methods. and experience. User can plan everything by his own. No need to worry about pre knowledge and experience. System will take care everything and finally make more beautiful wedding.

#### REFERENCES

- 1. Abdul--Kader, S., Woods, J. 2015. Survey on Chatbot Design Techniques in Speech Conversation Systems. IJACSA International Journal of Advanced Computer Science and Applications, 6, 72--80.
- 2. Accenture. 2017. At Your Service: Embracing the Disruptive Power of Chatbots. Dublin: Accenture. Cappemini Consulting. 2011.
- 3. Channel Strategy: Framework for Success. London: Capgemini. Durmaz, Y., Efendioglu, I. 2016. Travel from Traditional Marketing to Digital Marketing.
- 4. Global Journal of Management and Business Research, 16, 35--39. Fill, C., Jamieson, B. 2011.
- 5. Freitas, H, Oliviera, M., Jenkins, M., Popjoy, O. 1998.
- 6. The Focus Group, a Qualitative Research Method. Merrick School of Busines
- 7. Jobber, D., Ellis--Chadwick, F. 2013. Digital Marketing and Social Media.
- 8. 7th edition. London: McGraw--Hill Higher Education.
- 9. Murphy, G. 2008. Communication Strategy: A Best Practice Guide to Developing Communication Campaign. London: IPA.
- 10. Oracle. 2016. Can Virtual Experiences Replace Reality? Redwood Shores: Oracle Corporation.
- 11. Pelton, L., Strutton, D., Lumpkin, J. 2002. Marketing Channels: A Relationship Management Approach. 1st edition.
- 12. Edinburgh: The McGraw HPride, W., Ferrel, O., Lukas, B., Schembri, C., Ninninen, O. 2015. Marketing Principles.
- 13. Melbourne: Cengage Learning. Saunders, M., Lewis, P., Thornhill, A. 2009. Research methods for Business Students. 5th edition.
- 14. Harlow: Pearson Education Limited. Shawar, B., & Atwell, E. 2007.
- 15. Chatbots: are they really useful? LDV Forum, 22, 29--49.
- 16. Ubisend. 2017. 2017 Chatbot Survey: We now live in an on--demand society, time to get prepared.
- 17. Norwich: Ubisend. Electronic references API.AI. 2017. Welcome. API.AI [accessed 12 April 2017]. 18. Available at: https://docs.api.ai/docs/welcome Chatfuel. 2017. Facebook Messenger. Chatfuel Help [accessed 25 April 2017].







[ICITAIC-2019] ISSN 2348 - 8034 Impact Factor- 5.070

- 18. Available at: https://help.chatfuel.com/facebook--messenger/ Lake, L. 2016.
- 19. What is a Target Audience? The Balance [accessed 23 April 2017].
- 20. Strategic conversations with your customers helps hone the planning process.
- 21. Emerald Group Publishing Limited [accessed 1 May 2017].
- 22. Available at: https://ebookcentral--proquest com.aineistot.lamk.fi/lib/lamk-ebooks/reader.action?docID=28
- 23. By the Numbers: Amazing WordPress Statistics. DMR [accessed 20 April 2017]. Available at: http://expandedramblings.com/index.php/wordpress--statistics/
- 24. Wiredelta. 2016. About. Wiredelta [accessed 25 April 2017].
- 25. Available at: https://wiredelta.com/about/en Wiredelta. 2017. Chatbot to Build Websites and Apps [29]Wiredelta [accessed 29 April 2017].
- 26. Available at: https://goo.gl/VQAf0d Oral references Dalgaard--Jensen, P., Malinet, C., Krishnan, P., Roth, B., Faivre, H. 2017.
- 27. Interns at Wiredelta. Group discussion 5 May 2017.
- 28. Dencker, M. 2017. CEO and Co--Founder of Wiredelta. Interview 2 May 2017.
- 29. The active user of Wiredelta's chatbot. Interview 3 May 2017. Pal, J. 2017. CEO and Co-Founder of Sure. Interview 5 May 2017..

