IMO SKILLUP POWER BI PROJECT – DATA ANALYTICS

IMO STATE MINISTRY OF DIGITAL ECONOMY CENTRE OWERRI.

SPOTIFY PODCAST USER REPORT PRESENTED BY UZOMAH, CHUKWUEBUKA DANIEL

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Introduction.

In recent years, the world of podcasting has witnessed an explosive growth in popularity, captivating audiences with its diverse range of content and accessibility. As one of the leading platforms in the podcasting landscape, Spotify has emerged as a prominent destination for both creators and listeners. With its vast library of podcasts spanning various genres and topics, Spotify provides a rich source of data that can offer valuable insights into listener preferences, behaviours, and trends. This analysis aims to delve into the intricate web of Spotify podcast data to uncover patterns, preferences, and tendencies that shape the way audiences engage with this captivating form of audio content. By examining parameters such as podcast host preference, duration, variety satisfaction, and listening frequency, we seek to gain a comprehensive understanding of the dynamics driving podcast consumption on the Spotify platform. Through this exploration, we hope to shed light on the evolving landscape of podcasting and provide actionable insights for creators, platforms, and enthusiasts alike.

Data source.

 The spotify user dataset was sourced from kaggle and it was in an xlsx format. The dataset contains 520 rows and 20 columns including Age, Gender, spotify usage period, spotify listening device, spotify subscription plan, premium sub willingness, preferred premium plan, preferred listening content, favourite music genre, music time slot, music Influential mood, music listening frequency, music expl method, music record rating, podcast listening frequency, favourite podcast genre, preferred podcast format, podcast host preference, preferred podcast duration, podcast variety satisfaction

Data cleaning and transformation.

This dataset was cleaned and transformed using Power BI. The dataset was imported into power query and no duplicate values were found, also error values were removed. The column that had age group was correctly regrouped, the columns names that were abbreviated such as lis_content changed to listening content, music_lis_freq changed to music listening frequency, etc were properly written. As part of the transformation process, I regrouped the entities in the spotify usage period. After the data cleaning and transformation process, the same number of rows and columns were obtained.

Problem Statements

The following problem statements will be considered:

1. Assessing the Effect of Podcast Host Preference on Audience Engagement
2. Exploring the Relationship Between Podcast Duration and Listener Engagement
3. Examining the Role of Podcast Variety Satisfaction in Fostering Audience Engagement and Sustained Interest Over Time
4. Analysing the Patterns of Podcast Listening Frequency on Audience Engagement
5. Investigating the Influence of Podcast Format on Audience Engagement and Perceived Value

Data analysis and visualisation

1. Assessing the Effect of Podcast Host Preference on Audience Engagement

The pie chart below indicates the insights from the data highlight varied audience preferences when it comes to podcast hosts:

Approximately 21.92% of the audience leans towards podcasts hosted by well-known personalities, indicating a preference for established figures. Around 16.35% of listeners show an inclination towards podcasts hosted by unknown individuals, suggesting an openness to new and unique content creators. A significant 27.12% of the audience does not exhibit a strong preference for either well-known or unknown hosts, implying that other factors like content or format might influence their podcast choices.

The largest portion, 34.62%, prefers a blend of both well-known and unknown podcasters, indicating an interest in diverse perspectives and a mix of established and emerging voices.

In essence, the data underscores the diverse landscape of podcast listener preferences, encompassing admiration for familiar hosts, curiosity for unknown voices, emphasis on content quality, and a preference for a balance between host types. This insight can guide content creators in tailoring their podcasts to cater to these distinct preferences and maximise audience engagement.
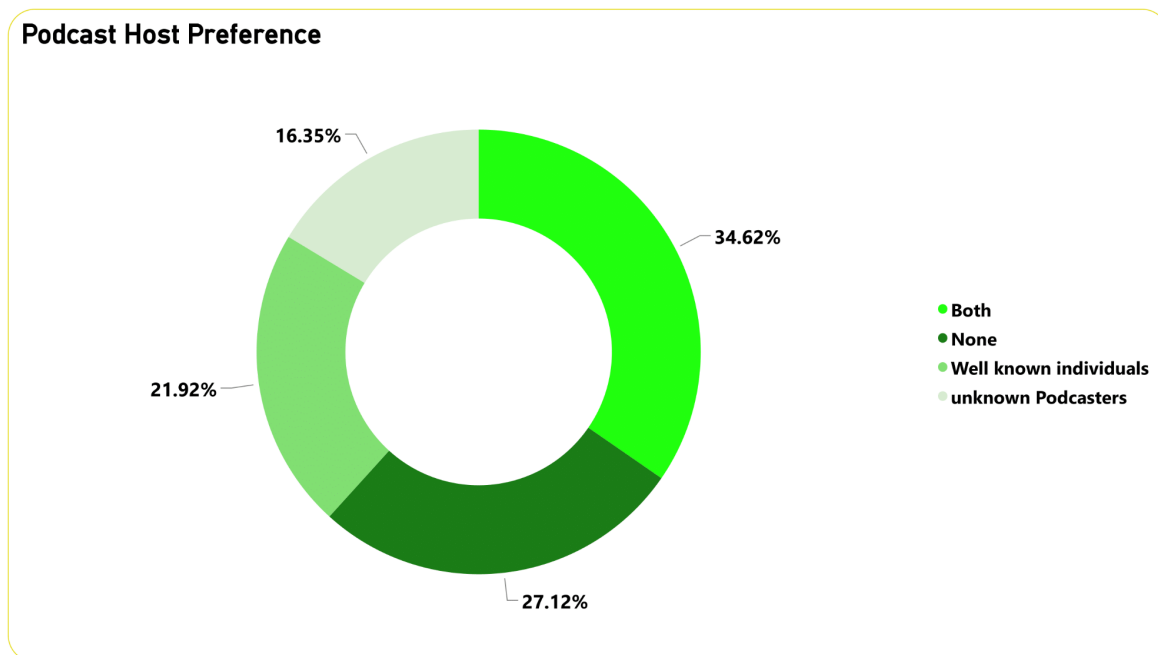

FIG 1: Pie chart indicating Podcast Host Preference.

2. Exploring the Relationship Between Podcast Duration and Listener Engagement

The chart below shows The insights from the data shed light on listener preferences regarding podcast duration:

- Around 36.73% of listeners favour shorter podcast episodes, indicating a preference for concise and focused content that fits into their busy schedules.
- Approximately 24.81% of the audience does not exhibit a strong preference for either shorter or longer durations, suggesting that other factors such as content relevance and quality may play a more significant role in their choices.
- A significant 22.5% of listeners enjoy a mix of both shorter and longer podcasts, showcasing an interest in a diverse range of content lengths to cater to different contexts or topics.
- Roughly 15.96% of the audience leans towards longer podcast episodes, suggesting an appreciation for in-depth discussions and content that allows for a deeper exploration of subjects.
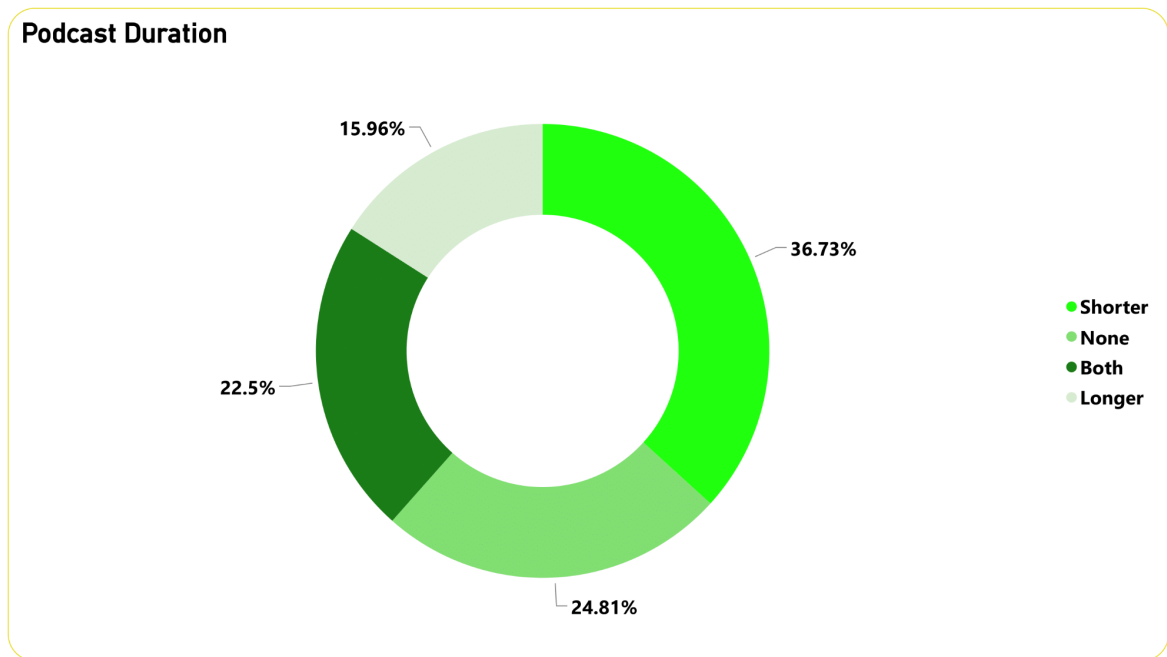
Podcast Duration

- Shorter
- None
- Both
- Longer

36.73%
24.81%
22.5%
15.96%

FIG 2: Doughnut pie chart showing Podcast Duration

3. Examining the Role of Podcast Variety Satisfaction in Fostering Audience Engagement and Sustained Interest Over Time

Fig 3 shows a model of podcast variety satisfaction; the analysis indicates the following distribution of responses:

- Very Dissatisfied: 10 listeners expressed very low satisfaction with the variety of podcasts.
- Dissatisfied: 20 listeners conveyed dissatisfaction with the podcast variety.
- Very Satisfied: 48 listeners reported a high level of satisfaction with the diversity of podcasts.
- Satisfied: 162 listeners indicated a positive level of satisfaction regarding podcast variety.

- Okay (Neutral): The majority, 280 listeners, perceived the podcast variety as acceptable without strong positive or negative sentiments.

This data demonstrates that a substantial portion of listeners hold positive sentiments toward the variety of podcasts available. However, a notable segment also expressed dissatisfaction or neutrality, suggesting there might be opportunities to enhance the diversity of content to cater to a broader range of preferences. Content creators can consider these insights to further refine their podcast offerings and potentially boost overall audience satisfaction.
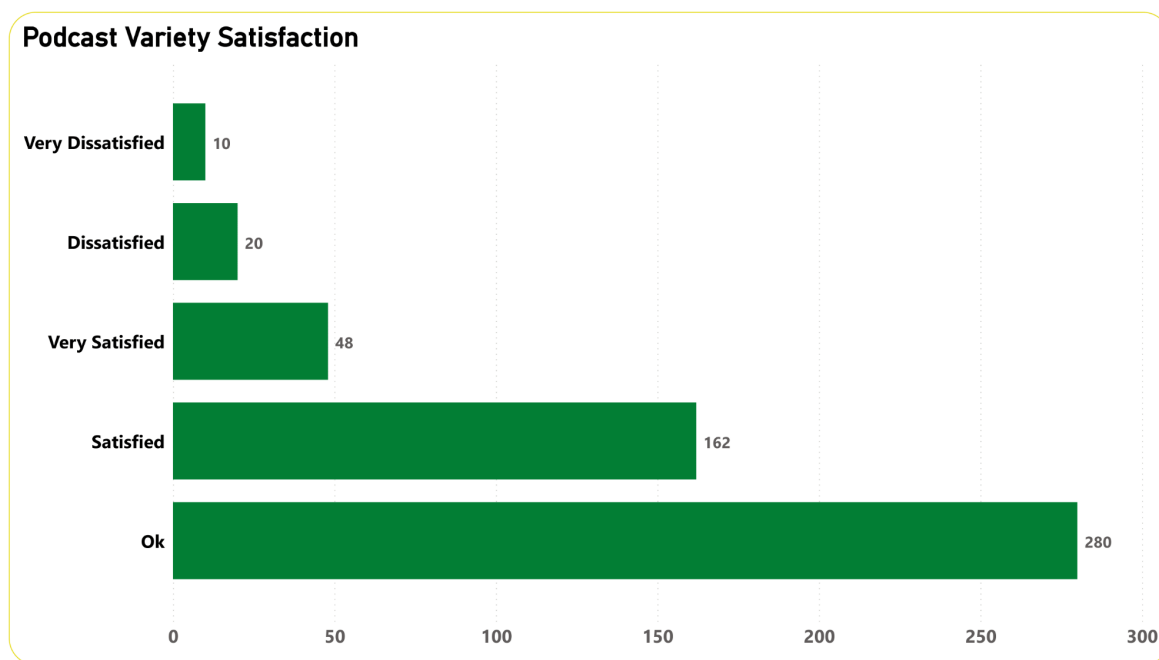
Podcast Variety Satisfaction

Category	Value
Very Dissatisfied	10
Dissatisfied	20
Very Satisfied	48
Satisfied	162
Ok	280

FIG 3: Bar Chart showing Podcast Variety Satisfaction

4. Analysing the Patterns of Podcast Listening Frequency on Audience Engagement.

The analysis of podcast listening frequency reveals that 20 spotify podcast listeners engaged with podcasts on a daily basis. They are highly dedicated and

likely prioritise podcasts as a regular source of content. Also, 78 users use Spotify several Times a Week. A significant portion of the audience listens to podcasts multiple times per week. This group demonstrates consistent interest and engagement with podcast content.

 A notable number (91) of listeners engage with podcasts once a week. They value this routine but may have other commitments limiting more frequent listening.
In addition, A substantial segment of listeners (130) reported never engaging with podcasts. This suggests untapped potential for attracting new listeners or understanding barriers that prevent engagement.
Also, a significant proportion (201) of the audience listens to podcasts infrequently. Exploring the reasons behind their low engagement could provide insights into improving content or addressing potential barriers.

Hence, podcasts have garnered a range of engagement frequencies from daily enthusiasts to those who rarely or never listen. Understanding these patterns can help content creators tailor their strategies to better cater to different levels of engagement and preferences within the audience.
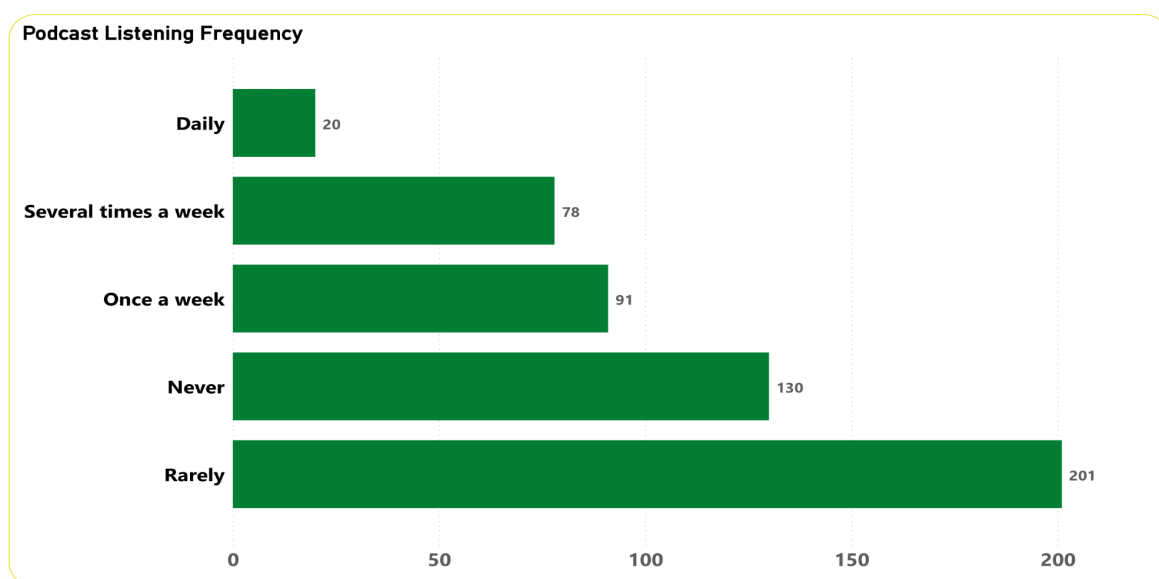

FIG 4: Bar Chart displaying Podcast Listening Frequency

5. Investigating the Influence of Podcast Format on Audience Engagement

The analysis of podcast format preferences reveals that 105 listeners prefer conversational podcast formats. This indicates a preference for informal discussions and engaging conversations. Also, a notable number (49) of listeners lean towards educational podcast formats. This suggests an interest in content that imparts knowledge, skills, or insights. A substantial group shows a preference for interview-style podcasts. This could signify an attraction to in-depth conversations with guests and experts. 152 portion of the audience is drawn to storytelling podcast formats. This indicates an appreciation for narrative-driven content that captures their imagination. These insights highlight the diversity in audience preferences, with different groups favouring various formats such as conversational, educational, interview, and storytelling. Content creators can leverage these insights to tailor their content strategy and provide engaging podcasts that align with the preferences of their target audience.
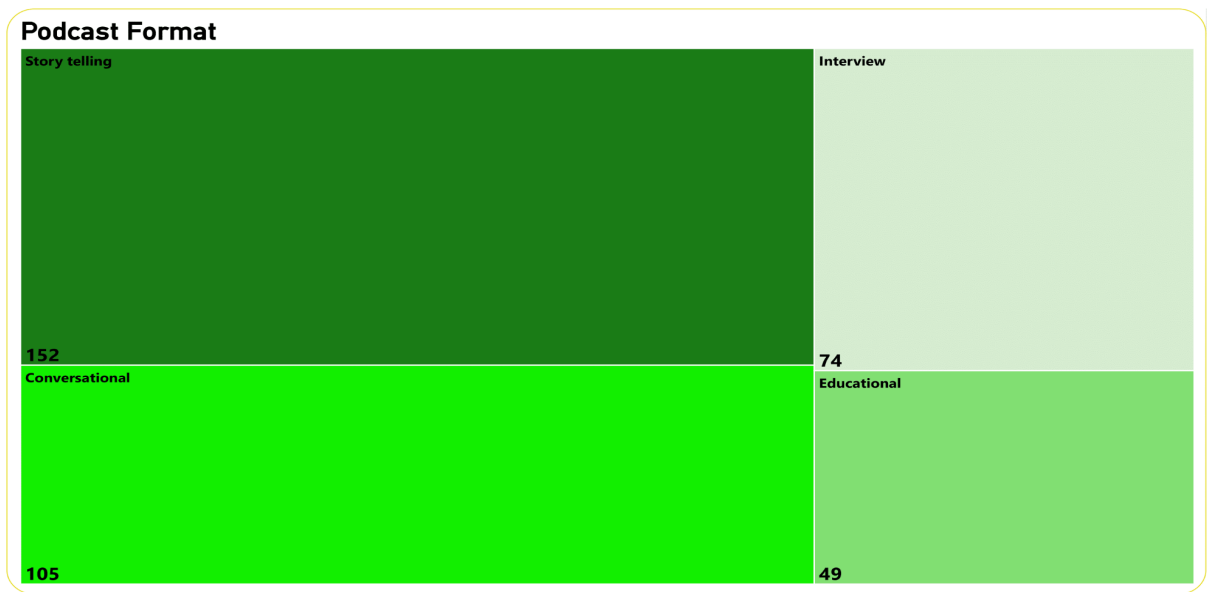

Podcast Format

Story telling — 152
Interview — 74
Conversational — 105
Educational — 49

FIG 5: Tree Map showing the Podcast Format

Recommendations.

From the insights generated from this analysis, the following recommendation could help to improve spotify podcast listeners:

1. Given that a significant 34.62% of the audience prefers both well-known and unknown podcasters, it is recommended to strike a balance between featuring established personalities and introducing emerging voices. This approach can cater to a diverse audience seeking a variety of perspectives while also leveraging the credibility of well-known hosts. Additionally, considering the 27.12% who show no strong preference, content quality and engaging topics should remain key focal points to capture their interest.

2. Considering that 36.73% of listeners prefer shorter podcast episodes, it's advisable to offer concise and focused content that accommodates their busy schedules and on-the-go listening habits. For the 24.81% with no specific preference, focusing on content quality and relevance remains essential. As 22.5% enjoy both shorter and longer episodes, providing a mix of content lengths could cater to diverse interests. Lastly, for the 15.96% inclined towards longer episodes, incorporating comprehensive discussions and in-depth explorations could enhance their engagement. In summary, a balanced approach that provides content in varying durations can effectively cater to a wider range of listener preferences.

3. For the very dissatisfied and dissatisfied listeners, it's crucial to actively address their concerns by diversifying content, introducing new topics, and featuring a range of voices to enhance their satisfaction. ALSO, for the very satisfied and satisfied segments, it's essential to maintain the diverse content that has garnered positive feedback. Regularly seeking feedback and continuously introducing fresh ideas can help sustain their high level of satisfaction. In the same vein, for the ok group, while they might not express

strong sentiments, it's important to gauge their specific needs and preferences. Providing a mix of content that aligns with their interests can potentially convert them into more engaged and satisfied listeners.

In conclusion, fostering a dynamic range of content and regularly seeking audience feedback can elevate the overall podcast variety satisfaction, catering to a broader spectrum of listener preferences.

4. Maintain content consistency to meet the needs of dedicated daily listeners. In the same vein, there should be continuous provision of regular content updates for consistent engagement. Also, ensure weekly episodes cater to these listeners' routine consumption; there is a need to Investigate reasons for non-engagement to potentially convert them into listeners and offer diverse content and promote to encourage more frequent engagement.

5. Foster engaging discussions, encourage listener interaction. Also, Provide informative and structured content to fulfil learning needs and feature insightful conversations with guests to captivate audience interest. Finally, craft compelling narratives to immerse listeners in captivating stories.

Conclusion

In conclusion, the analysis of Spotify podcast data provides valuable insights into listener preferences and behaviours. The diverse distribution of parameters such as podcast host preference, duration, variety satisfaction, and listening frequency highlights the nuanced nature of audience engagement. By understanding these patterns, content creators and platforms can tailor their strategies to cater to the unique preferences of different segments of listeners. The recommendations derived from this analysis offer a roadmap for optimising podcast offerings and enhancing overall listener satisfaction, contributing to a thriving and dynamic podcasting landscape on the Spotify platform.