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ACTIONABLE GUIDELINES FOR SMALL AND MEDIUM-SIZED CONTENT CREATORS TO NAVIGATE THE YOUTUBE RECOMMENDATION SYSTEM AND ACHIEVE SUCCESS

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ABSTRACT

The YouTube Recommendation System (YRS) is essential, for helping both creators and viewers discover content. However small and medium sized content creators (SMCs) often struggle with understanding the complexities of YRS and achieving success. This study aims to understand the impact of YRS towards SMCs and help them by providing guidelines to optimize their content for YRS and grow their channels. By selecting and analyzing studies from academic sources the study uncovered insights into YRS practices. One key finding of the literature review section of this study was that existing studies did not directly address the challenges SMCs face with YRS implementation. It underscored the need for research focused on understanding how SMCs can navigate YRS effectively. Despite this limitation the reviewed studies offer insights that can be adapted to benefit SMCs. This study itself uses a mixed-methods approach to examine how the YouTube Recommendation System (YRS) affects small and medium sized content creators (SMCs) and offers practical advice on navigating it. By blending qualitative and quantitative data gathering techniques it aims to gain a profound insight, into the obstacles and possibilities that SMCs encounter, in the YRS environment. This study consolidates these insights and suggests recommendations tailored to SMCs, such as strategies for optimizing content engaging with audiences and understanding YRS algorithms.

Keywords: YouTube Recommendation System (YRS), Small and Medium-Sized Content Creators (SMCs), Actionable guidelines, Success, Growth, Audience Engagement

Abbreviations

YRS - YouTube Recommendation System

SMC – Small and Medium Sized Content Creators

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INTRODUCTION

In today's era YouTube has become a platform that has revolutionized how we access information and entertainment. With billions of users every month this platform presents an array of content crafted by a community of creators. These creators, who are the driving force, behind YouTube invest their creativity and hard work into producing captivating videos. However, they encounter an obstacle - getting their content discovered by the ranging audience on YouTube. This issue of visibility for creators is the focal point of this study. The upcoming sections will explore the nuances of the YouTube environment address the obstacles confronted by these creators and ultimately explore strategies to empower them and ensure their messages reach the viewership, on YouTube.

Importance of YouTube and the Role of Content Creators

In the era of technology, we have seen an increase, in video platforms and YouTube has clearly taken the lead. With than 2 billion active users every month YouTube has changed how we access information and entertainment (T S., 2024). It provides a range of content for a global audience, with different preferences.

A Hub for Information and Entertainment:

YouTube's popularity is mainly because it allows everyone to create and share content easily. Unlike platforms anyone, with internet access and creative ideas can make videos on YouTube. This has led to a range of videos being made such as music videos, news clips, comedy sketches and how to tutorials. Viewers can easily find content that matches their interests and learning preferences. YouTube is now known worldwide as a go to source, for entertainment and information thanks to its array of content (T S., 2024).

The Rise of Content Creators:

Creators play a role, in the YouTube world. They invest their time, effort and imagination into crafting educational videos. Accomplished creators build followings around their content nurturing a feeling of belonging and mutual enthusiasm. These communities vary from groups centered on subjects to larger audiences attracted by a creators' distinct

character or approach. The interaction, between creators and viewers is a defining feature of YouTube encouraging dialogue and teamwork within an environment (T S., 2024).

Economic Impact and Cultural Influence:

The rise of YouTube creators has had an influence well. Content producers can earn income from advertisements, sponsorships and collaborations, on the site. This chance has enabled creators to build careers contributing to the growth of the creator community. Furthermore YouTube content makers wield influence. They possess the power to establish trends shape perspectives. Inspire audiences globally. Numerous social movements and cultural shifts have started on YouTube demonstrating the platforms capacity to engage and empower viewers.

The Need for Continued Research:

Notwithstanding YouTube's successes and the noteworthy contributions of its creators, there remain challenges and avenues for further research. Understanding how creators work the platform's algorithms to improve their channels' visibility and launch careers is crucial for promoting the growth and welfare of the YouTube community. Small and medium-sized content creators (SMCs), who face particular challenges in making a name for themselves in a cutthroat market, should find great value in this research. We'll go into more detail about the YouTube Recommendation System (YRS) in the following sections. elucidate the difficulties SMCs encounter on this platform (Goodrow C., 2021).

The YouTube Recommendation System (YRS) and its Significance

In the ocean of videos, on YouTube finding content is essential for both viewers and creators. The YouTube Recommendation System plays a role by suggesting videos based on users viewing habits search history and interactions with channels and videos. Its aim is to recommend content that aligns with users' interests and keeps them engaged, on the platform.

The Algorithmic Engine:

While the inner workings of the YRS are not openly shared it is known to be a system that takes into account factors when generating suggestions (Gough A., 2021). These factors might include;

- Viewing history - Videos previously watched by a user those viewed for periods or revisited multiple times.
- Search patterns - Keywords and search terms entered by a user indicating their current interests and potential areas of exploration.
- Engagement metrics - Likes, dislikes, comments and shares made by a user on videos offer insights, into their preferences and level of involvement.
- Channel subscriptions - The channels to which a user subscribes reveal their preferred content creators and thematic inclinations.
- Video attributes - like titles, descriptions, tags and metadata to categorize and recommend videos to viewers.
- User details – such as location, age and other anonymized data are considered to tailor recommendations, for a viewing experience.

By examining these information, the YRS strives to anticipate user preferences and enhance their engagement with a customized viewing journey.

Significance of the YRS:

The YouTube Recommendation System (YRS) plays a big role (Flender S., 2023), within the YouTube community for some reasons -

- Improving User Experience - By suggesting content the YRS helps users discover channels delve into topics they are interested in and ultimately stay longer on the platform.
- Boosting Creator Visibility - The YRS serves as a tool, for creators to reach an audience beyond their current subscriber base. Effective recommendations can introduce creators content to viewers who could potentially become followers.

- Fueling Platform Growth - A operating YRS contributes to the growth of the platform by keeping users engaged and satisfied. This leads to increased viewing time, ad revenue and ongoing user expansion (Gough A., 2021).

Challenges Faced by Small and Medium-Sized Content Creators

In the realm of YouTube creators have a chance to engage with their audience showcase their skills and even potentially make a living. Yet breaking through on this platform can be challenging for content creators those, with subscriber numbers varying from a thousand to fifteen thousand. Unlike established channels with a fan base and recognizable brand smaller creators often struggle to make their mark and attract attention in an environment (Marshall C., 2023). Here are some common hurdles that small, to medium sized content creators face on YouTube;

Standing Out in a Crowded Niche:

Standing out on YouTube can be quite a struggle, for medium creators because of the abundance of content on the platform. With creators vying for viewership in niches it can be challenging for SMCs to make a name for themselves and distinguish their content. This difficulty is particularly pronounced in oversaturated niches where established creators already dominate search results and audience attention (Marshall C., 2023).

Reaching a Wider Audience:

The YouTube Recommendation System (YRS) plays a role in helping users discover content. However small to medium creators often encounter challenges in having their videos recommended to an audience beyond their subscriber base. The algorithms tend to prioritize channels with views and engagement posing obstacles, for SMCs looking to broaden their audience reach and attract viewers (Marshall C., 2023).

Optimizing Content for the YRS:

Optimizing content, for the YRS can pose a challenge for businesses. Enhancing visibility in search results and recommendations involves tagging videos incorporating keywords

and creating engaging titles and descriptions. Yet for to sized companies with limited resources mastering the art of YRS optimization may demand considerable time investment along, with research and fine tuning (Marshall C., 2023).

Creating High-Quality Content Consistently:

Creating top notch content regularly is crucial, for keeping and expanding your audience. Yet smaller content creators often deal with constraints such as funds, equipment and editing skills compared to larger channels. Balancing a posting schedule with aiming for top notch production quality can pose a challenge, for these smaller and medium-sized content creators (Marshall C., 2023).

Competition from Established Channels:

Known and popular channels typically have an advantage when it comes to being discovered and engaging with their audience. They may receive treatment, from fan communities on platforms like YRS due to their established reputation. Have more resources available for promoting their content. It can be quite tough for channels that are still growing their audience to compete for viewers' attention against the players (Marshall C., 2023).

Limited Marketing Budget:

Spreading the word and attracting viewers to a YouTube channel heavily relies on marketing and promotion. Medium sized creators often struggle with funds to invest in paid ads or extensive social media campaigns. This limitation can hinder their ability to reach an audience beyond what the YouTube algorithms offer, in terms of exposure (Marshall C., 2023).

The Need for Support:

The obstacles encountered by small and medium creators underscore the importance of continuous assistance and tools to guide them through the intricacies of the YouTube platform. Having a grasp, on content creation methods SEO optimization strategies and

ways to engage with audiences can enable these creators to tackle these challenges and find success, on YouTube (Marshall C., 2023).

Research Problem and Research Questions

Research Problem

The small and medium sized content creators of the YouTube platform often struggle to gain visibility to their videos and to be success on the YouTube platform due to some significant reasons that they are facing:

- The complexity of the YouTube Recommendation System makes a challenge as SMCs find it hard to grasp how certain content is prioritized over others content.
- The fierce competition among a pool of creators, on YouTube makes it tough for SMCs to make their mark and attract viewers to their videos.
- Most of the small content creators lack an understanding of how the YouTube Recommendation System influences the discoverability and success of their content.

Research Questions

In order to have a deep understanding of this landscape and equip small and medium sized content creators, with practical strategies this study aims to address the following research questions:

• **RQ1** - How does the YouTube Recommendation System (YRS) impact the discoverability and visibility of the content produced by the small and medium sized content creators?

• **RQ2** – What are the primary factors that contribute to the success of small and medium sized content creators within the YRS environment?

• **RQ3** - What actionable guidelines can be proposed for both content creators and YouTube platform itself to enhance the efficiency and impartiality of the YRS for small and medium sized content creators?

1. LITERATURE REVIEW

YouTube has evolved into the number one online video sharing platform in the world that offers a variety of content, for both entertainment and educational purposes (T S., 2024). Besides being a hub of videos YouTube primarily operates based on recommendations (Goodrow C., 2021). Nevertheless, within this landscape smaller content creators face challenges as they strive to carve out their place, among established giants (Olsson R.R., 2019). Their journey is often characterized by the pursuit of visibility active audience engagement and growth (Marshall C., 2023). All closely intertwined with the effectiveness and efficiency of YRS. Research papers such, as "Exploring and Understanding the Phenomenon of Popular but Overlooked YouTube Videos" and "Evaluating User Satisfaction with the Current YouTube Recommendation Algorithm" examine user opinions and the effectiveness of the system, from a perspective. In the midst of this changing landscape "The YouTube Video Recommendation System". YouTube Channels, Uploads and Views; A Statistical Analysis of the Past 10 Years" delve, into the complex workings and evolving trends that influence how content is recommended and distributed on the platform (Bärtl M., 2018). These papers offer insights, into the world that determines how content is discovered and how creators find success.

Therefore, in this web of algorithms, user behavior and content creation this systematic literature review section aims to examine and understand the direct impact of the YouTube Recommendation System, on the success and growth paths of small and medium sized content creators. By combining insights from studies and using an approach, this study intends to uncover how the system influences creators' audience engagement, visibility and overall success. In exploring this area this study not aims to shed light on the challenges faced by emerging creators, also suggests customized strategies and recommendations to improve the systems effectiveness, in fostering an environment that supports the growth and development of diverse content creation communities.

Davidson et al. (2010) and his team conducted a study and focused on the video recommendation system of YouTube highlighting its role, in offering customized content to users based on their activity on the platform. They discuss the challenges posed by the

abundance of user generated content. Emphasize the importance of mechanisms for discovering content within the platform (Davidson et al., 2010).

The paper goes into detail about how YouTube recommendation system's designed explaining how it uses user activity as a starting point to generate sets of videos. By utilizing graphs based on visitation patterns and association rule mining techniques the system expands its recommendations to cater to a wide range of user preferences (Davidson & J. et al., 2010).

There is an evaluation framework described in this study. It involves A/B testing and metrics like click through rates session lengths and recommendation coverage. As per the authors findings, the success of the system is measured by its contribution to user engagement with recommendations accounting for a portion of video clicks from the homepage (Davidson & J. et al., 2010). However, while this study extensively explores YouTube recommendation system and its impact on user engagement metrics there is a gap when it comes to understanding how it specifically affects medium sized content creators. The research mainly focuses on user engagement and platform metrics than delving into the nuanced challenges and opportunities faced by emerging content creators (Davidson & J. et al., 2010). Addressing this gap is crucial for gaining insights, into how YouTube recommendation algorithms impact the visibility, growth and success paths of content creators. Further research is needed to understand the differences, in visibility and engagement between known creators and smaller ones, within the recommendation system.

The super growth and development of the YouTube platform in the last ten years have been explored by the research paper titled "YouTube channels, uploads and views; A statistical analysis of the 10 years" by Bärtl published in "Convergence - The International Journal of Research into New Media Technologies (Bärtl M., 2018).

Bärtl's and his teams' study highlights the growth rates of the YouTube channels, and uploads and views for the videos in the platform. As a result of this evolution in the YouTube platform, the authors have found a scenario where a few top channels attract most of the viewership (Bärtl M., 2018). This distribution imbalance raises concerns about the challenges faced by the small and medium sized content creators striving for visibility and success (Bärtl M., 2018). However, despite this dominance by the bigger channels in the

platform, still YouTube provides a platform that caters to various content genres. The study of Bärtl's also brings attention to trends in viewership suggesting fluctuations in user engagement throughout times of the year (Bärtl M., 2018).

This study's main discoveries suggest that creators face challenges, in getting noticed on YouTube due, to the amount of content present. The researchers noted that smaller creators rely heavily on producing high quality content and skillfully utilizing the recommendation system to succeed. This research primarily delved into YouTube trends specifically focusing on viewership distribution and content expansion. Nonetheless there remains a lack of comprehension regarding how YouTubes recommendation system influences the success of content creators.

Another study was conducted in this area by Zhou, Khemmarat and Gao (2010). This study offers insights, into how the YouTube recommendation system affects the video views and diversity of the platform. According to their study, while many views still came from YouTube searches, a significant number of videos are influenced by the video recommendation system of the platform. This study highlights the importance of these recommendations, in increasing the content visibility of the platform (Zhou R. & Khemmarat et al., 2010).

Zhou and colleagues research findings shed light on the relationship, between a videos viewership and the average number of views from referring videos. This underscores the significance of recommendation placement in boosting a videos popularity. The study also highlights how a videos position in the list influences its click through rate (CTR) demonstrating the impact of recommendation system placement, on user engagement. Zhou study explores how YouTubes recommendation system promotes video views beyond content. Their research shows that this system enhances the variety of video views offering viewers opportunities to discover content tailored to their interests (Zhou R. & Khemmarat et al., 2010).

While Zhou, Khemmarat and Gao provided insights, into how the YouTube recommendation system impacts views and diversity on the platform there is still much to uncover about its impact on medium content creators and their channels.

In a study by Sikdar et al. (2016) focusing on video popularity dynamics on YouTube they uncovered a phenomenon known as "Sleeping Beauties." These videos experience a spike in popularity after a year challenging our understanding of content trends. These discoveries shed light on how content visibility operates within the YouTube ecosystem prompting questions about the role of YouTube recommendation algorithms, in the delayed success of videos (Sikdar, S. et al., 2016).

The analysis done by Sikdar et al. (2016) primarily focused on "Sleeping Beauties" of the platform. It emphasized the engagement from users with these kind of videos. This study suggests that there might be qualities within the content or external factors that influence their rise in popularity . In this existing research, including Sikdar's and his teams' work has mainly concentrated on video popularity dynamics and engagement without addressing how YouTube recommendation system impacts small and medium sized content creators differently (Sikdar, S. et al., 2016). While recognizing the significance of recommendation systems in determining content visibility there remains a gap in understanding how these algorithms influence the discoverability, growth and success of emerging creators, in particular.

The paper "Boosting Video Popularity Through Recommendation Systems", by Zhou et al.'s and his team discussed about the impact of the recommendation systems on the popularity of the published videos on the YouTube platform (Zhou R. et al., 2011). The study introduces a model called "view propagation", which measures the influence between videos and examines factors like similarity in titles and tags that play a role in forming recommendations, between videos. According to them, while search engines play a role, recommendation system also contribute greatly to the number of views on these platforms. They estimated that 30% of YouTube views can be attributed to users clicking on video recommendations (Zhou R. et al., 2011).

Zhou's and his team's study provides insights into how recommendation systems impact video popularity and the factors that influence view propagation. However, their analysis primarily focuses on understanding the mechanisms of recommendation systems and their influence on video views without considering the implications, for small and medium sized content creators in the platform.

Erdvin et al's and his team conducted another study in 2022 in the area that we are currently discussing about. This study investigated how satisfied users are with the YouTube recommendation system (Erdvin et al, 2023). The findings of this study indicate that overall viewers have a reception of the video recommendation system. However, there are still some issues that persist such as clickbait videos, limited variety and uncertainty about how the recommendation system works (Erdvin et al, 2023). Interestingly this study also revealed differences in satisfaction levels between viewers and content creators of the platform. As per the authors findings, the content creators have expressed dissatisfaction with the video recommendation system of the YouTube platform (Erdvin et al, 2023).

Methodologically speaking studies have relied on surveys and analysis of user data to understand satisfaction levels and challenges faced by both users and creators in this study (Erdvin et al, 2023). While the study of Erdvin et al's and his team conducted in 2022 has provided insights, into user satisfaction and the inner workings of YouTube recommendation system, there is still a gap in understanding how this system directly affects smaller and medium sized content creators' success. Erdvin's study sheds some light on user sentiment. But it does not delve into the challenges that the small and medium sized creators face in growing their audience or creating content that engages potential viewers.

In the study "YouTubers - An Anthropological Exploration of YouTube Content Creators", conducted by Robin Olsson published in 2019, the writer applies Erving Goffman's theory of self presentation to investigate how YouTubers live their lives. This study delves into how creators shape and handle their identities through their content creation methods revealing the reasons, obstacles and gratifications linked to being part of the YouTube platform (Olsson R.R., 2019).

This research also delves into the reasons that inspire content creators, which vary from curiosity and artistic expression, to building connections with their audience and the possibility of rewards. Additionally' Olssons study emphasizes the role of communities in supporting YouTubers potentially shaping their sense of obligation to their viewers. Moreover Olsson's surveys reveal that content creators on the platform encounter difficulties in gaining visibility due to the algorithm favoring channels over smaller ones.

Although Olsson highlighted this visibility gap between larger channels due to algorithm preferences this research does not offer insights or tips, for creators to overcome this challenge and prosper on the platform.

In 2020, Lari Williams conducted a research titled " Bridging the Value Gap Between Content Creators and Digital Media Platforms - A Case Study of YouTube". It delves into the sharing of value in the creative content landscape. The study argues that content creators, such as YouTubers find themselves in a position compared to mediators and online platforms like YouTube due to the platforms control over content distribution granting them significant financial, algorithmic and overall ecosystem supremacy. By focusing on YouTube as a case study Lari Williams scrutinizes the dynamic, between platforms and creators by juxtaposing it with the content value chain. Despite the chain this study underscores a persistent "value gap" where creators receive a notably smaller portion of generated revenue. This disparity is attributed to YouTube's influence according to the study.

The research indicates that a combination of efforts involving creators and legal interventions could be an approach to tackle the value gap issue. Suggestions include initiatives such, as the formation of creator unions and effective negotiations by artist groups. Although Lari Williams study sheds light on the power dynamics between creators and platforms focusing on the "value gap" concept and potential solutions to support YouTubers it lacks insights, into the impact of YRS and the challenges faced by medium creators in expanding their audience on the YouTube platform.

Andrea Bellis research titled "Digital Platforms and Complementors: An Empirical Analysis based on YouTube Content Creators" delves into the evolution of YouTube content creators investigating how they interact with the platform and the tactics they employ throughout their careers (Belli A., 2023). This study highlights three phases - "Initial Beginnings"; New creators join the platform smoothly but face hurdles seeking external support to expand their audience. "Full Time Commitment"; As creators start relying on the platform, for income they often grapple with uncertainties. And "Achieving Independence"; Creators who attain a level of "Minor Celebrity" draw, in audiences and

rely less on platform earnings and they make use of their communities while exploring various ways to earn money beyond YouTube (Belli A., 2023).

This research explores the evolving dynamics, between platform and content creators. Initially YouTubes' policies favor creators. As their influence grows the platform becomes more stricter to retain these individuals. While Bellis study offers insights it acknowledges its limitations by lacking data on medium sized content creators and focusing only on successful ones thus limiting its understanding of factors contributing to failure. Despite these limitations Bellis research sheds light on the developing relationship between creators and platforms by highlighting the challenges and opportunities they face throughout their journey.

In 2020 Diana Maria conducted a research paper titled "Exploring the Ways People Use YouTube; A Comparison of Users and Content Creators." Marias study focuses on how individuals utilize the YouTube platform and the benefits they derive from it. It examines how video viewers engage with content, on the platform and how content creators contribute to its ecosystem.

This study reveals that audience members predominantly utilize YouTube for relaxation information seeking and entertainment purposes (Buf, D.-M. and Ștefăniță, O., 2020). They appreciate the range of content, on the platform and value the ability to discover videos tailored to their specific interests. Conversely content creators are driven by motives. They aim to satisfy higher level needs such as validation, recognition and an enhanced sense of self-worth. For the content creators, vlogging evolves into their occupation offering them not only financial incentives but also fulfillment specific, to their job role.

This study adds to our knowledge of the reasons why individuals engage with YouTube and the various motivations, for consuming and producing the content across the YouTube platform. It emphasizes the perspectives of viewers and content creators offering insights into the factors that drive individuals to create content on this platform. However, this study also does not delve their focus into the challenges that the small and medium sized creators face in growing their audience or creating content that engages potential viewers.

1.1 Method of Literature Review

Systematic Literature Review (SLR) has been chosen as the research method of this literature review section of this study. The study followed the guidelines that introduced by Kitchenham (2009). According to their approach, conducting an SLR involves few main stages: planning, execution, result analysis, and ongoing packaging to organize the findings throughout the process (Kitchenham B. et al. 2009).

The following Figure 1.1 provides an overview of the activities involved in each phase.

Fig. 1.1. Research Activities

In the following section, I will focus on the stage of planning that involves with the understanding of the research problem and defining the research questions and the way the review will be carried out.

1.2 Literature Search Strategy

A comprehensive search strategy was employed to identify and select most relevant studies for this systematic literature review section. The following steps were undertaken in the literature search.

1.2.1 Database Selection

Academic databases relevant to communication studies, media studies, and information science were selected, including:

- ACM Digital Library
- ScienceDirect

- IEEE Xplore
- Google Scholar
- Web of Science

The following Table 1.1 shows the numbers of papers found per source based on the keywords searched in the selected database. The second column of the table shows the result of an initial screening of papers found in each source. The candidate papers show the number of papers selected after the elimination of exclusion criteria. Finally, the selected papers show the number of papers from each source selected at the end of the inclusion process. Moreover, in the table, we can see that the ACM Digital Library is the source that gave me the most of the candidate and selected papers.

Table 1.1

Research findings obtained via search engines

Source	Papers found	Candidate	Selected
ACM Digital Library	33	10	3
ScienceDirect	24	6	3
IEEE Xplore	19	5	2
Google Scholar	15	4	1
Web of Science	11	3	1
Total	102	28	10

Table 1.2 represents the numbers of type of study which stand in selected papers for review. As we can see there 60% of papers were identified as Journal Papers.

Table 1.2

Numbers of selected study per type

Study	Count	Percentage
Journal Paper	6	60%
Conference Proceeding	3	30%
Book Chapter	1	10%

1.2.2 Keyword and Search Term Identification

Based on the research questions of the study, a combination of keywords and terms was used, including:

- "YouTube Recommendation System"
- "Small and Medium-Sized Content Creators"
- "Content Discoverability in YouTube"
- "YouTube Content Visibility"
- "Content Creators Success"
- "User Satisfaction" (specifically regarding creators)

1.2.3 Boolean Operators

The Boolean operators (AND, OR, NOT) were utilized in the search process to refine the search results and combine keywords effectively. For an example, "(YouTube Recommendation System) AND (Small and Medium-Sized Content Creators)" was used to find studies that directly address the impact of YRS on SMCs.

1.2.4 Search Refinement

The initial search results were reviewed, and the relevant keywords were added or removed to further refine the search results and ensure its comprehensiveness.

1.3 Study Selection Process

In the study selection process, the previously identified studies were screened using the predefined inclusion and exclusion criteria. Initially The titles, abstracts, and keywords of the papers were reviewed to determine their relevance with this study. Subsequently, full-text articles from potentially relevant studies were retrieved and thoroughly evaluated before being included in this review. This two-step screening process ensured that only studies directly addressing the research questions of this study and meeting the established criteria were considered for the literature review.

1.3.1 Inclusion and Exclusion Criteria

Studies were included in this review if they met the following criteria:

- Published in peer-reviewed journals or conference proceedings.
- Focused on the YouTube Recommendation System and content creators.
- Employed quantitative, qualitative, or mixed-methods approaches.
- Were written in English.

Studies were excluded if they:

- Did not directly focused on YouTube platform.
- Primarily focused on users or viewers but not the content creators.
- Did not address the research questions of this study.
- Not published in peer-reviewed academic sources.

The following Figure 1.2 summarizes the filtering process to exclude studies that did not fulfil the eligibility criteria. The studies were first excluded by title, and then abstract, and then the remaining studies were excluded by reading the full text of the study.

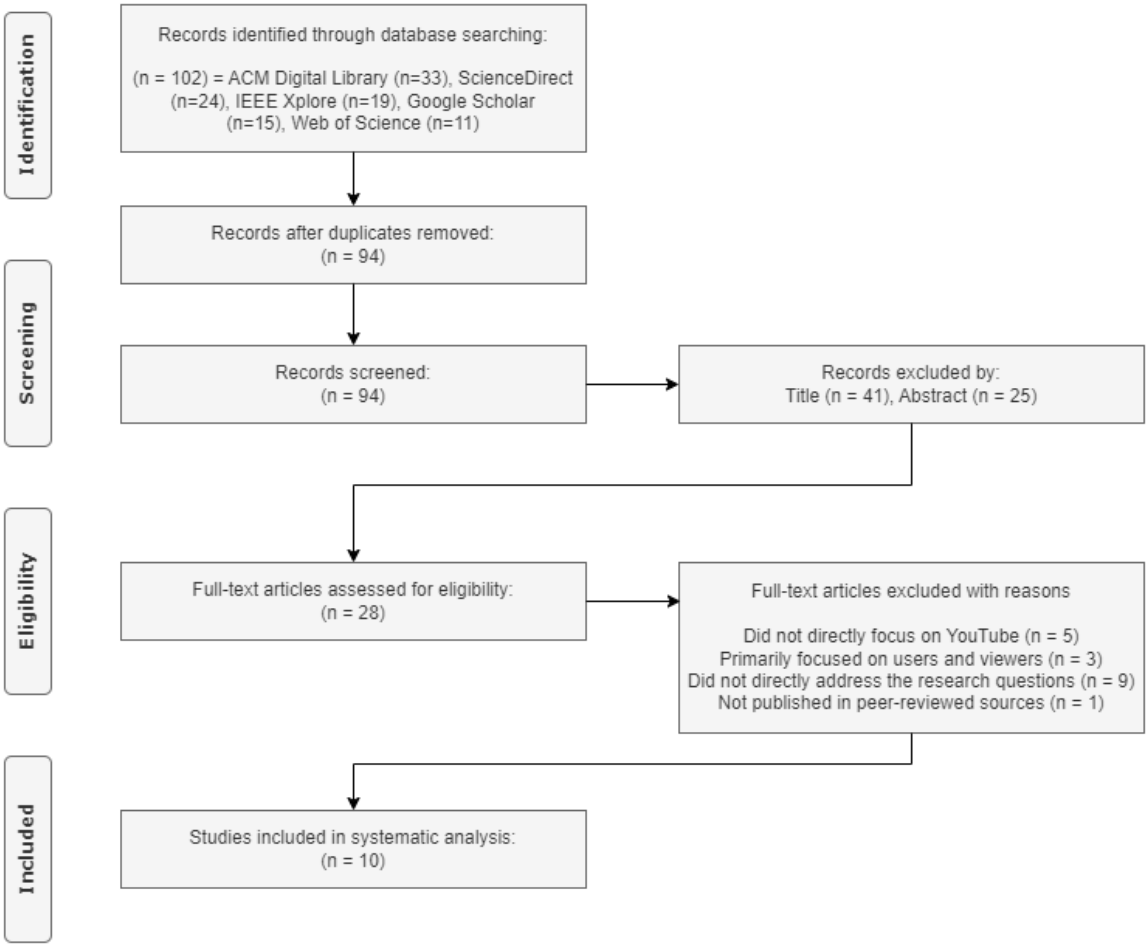

Fig. 1.2. Finding primary studies procedure

1.4 Results of Literature Review

The results and discussion part of this literature review further analyses the key findings of the previous studies that were selected for the systematic literature review section of this study.

1.4.1 Common findings of reviewed research studies

Some significant common findings of reviewed research studies in a few aspects are presented in Table 1.3.

Table 1.3

Common key findings of reviewed literature studies

Aspect	Key Findings
Content Discovery in the platform	The YouTube recommendation system itself plays a crucial role, in facilitating users discover content by using techniques like analyzing user activities in the system and mining association rules and employing view propagation models.
Video Popularity and Engagement	The recommendation system significantly influences video views, click-through rates (CTR), and user engagement, contributing to increasing the diversity of video views and sustaining the viewership over time.
Challenges faced by small and medium sized content creators	It can be quite difficult for smaller and medium sized content creators to gain visibility and achieve success, on YouTube. This is mainly because the top channels dominate the YouTube platform. For these creators navigating the recommendation system and effectively reaching their target audience can be a big deal.
User satisfaction and challenges	YouTube video viewers generally seem happy with the YouTube recommendation system. But still there are some concerns like clickbait videos, a lack of diversity in the content and confusion about how the system operates. On the other hand, content creators aren't thrilled and happy, with it as they find it challenging to use it to expand their audience and effectively engage their video viewers.
The need of further research	Based on the knowledge I have gained from previously conducted studies it is evident that there is a requirement, for additional research to comprehend the effects of recommendation systems, on smaller and medium sized content creators. Future investigations should concentrate on investigating the challenges, tactics and possibilities that smaller and medium sized creators

	encounter when utilizing recommendation systems to improve their contents visibility and engage with their audience.

1.4.2 Influence of YRS on SMCs' Discoverability and Visibility

Several research studies have delved into how the YouTube Recommendation System (YRS) impacts the discoverability and visibility of content, from Small to Medium Creators (SMCs). Here's a summary of their findings – Table 1.4.

Table 1.4

Influence of YRS on SMCs' Discoverability and Visibility

Study	Findings
The YouTube Video Recommendation System – (Davidson J. et al., 2010)	Davidson et al.s study on the YouTube Video Recommendation System pointed out that while the YRS aims to diversify recommendations its emphasis on user engagement can unintentionally give preference to established channels with bigger audiences making it harder for SMCs content to be discovered.
YouTube channels, uploads and views – (Bärtl M., 2018)	Bartls research on YouTube channels, uploads and views highlighted the power dynamics at play on the platform, where an abundance of content and the dominance of popular channels pose challenges for SMCs trying to gain visibility through organic search alone.
The impact of YouTube recommendation system on video views – (Zhou, R., Khemmarat, S. and Gao L., 2010)	Zhou et al.s analysis of the impact of YouTubes recommendation system on video views recognized that while YRS does contribute to promoting content beyond videos there are still uncertainties regarding the specific factors influencing the discoverability of SMCs content.

YouTubers: An anthropological exploration of YouTube content creators - (Olsson R.R., 2019)	In Robin Olssons work "YouTubers; An Anthropological Exploration of YouTube Content Creators " it was emphasized that smaller content creators face difficulties in getting noticed due, to a perceived algorithm bias that favors channels.

1.4.3 Key Factors Contributing to SMCs' Success within YRS

Furthermore, some studies have identified some key factors that contribute to the success of SMCs within the YRS ecosystem. It is presented in Table 1.5.

Table 1.5

Key Factors Contributing to SMCs' Success within YRS

Key Factors	Studies
Content quality and audience engagement	Sikdar et al., has suggested that high quality content with a strong audience engagement can potentially attract attention even apart from the immediate recommendations provided by the YouTube Recommendation System.
Strategic use of YRS features	Zhou et al. and his team, have emphasized in their study, the importance of understanding how recommendation algorithms work and strategically utilizing features like titles, tags, and descriptions to improve discoverability in the platform.
Community building and audience interaction	Erdvin et al., has pointed to the significance of building a loyal community around them and engaging with viewers through comments and other interactive elements while looking some support from the YouTube Recommendation System.

In this section of the literature review the studies provide insights, into the practices and potential benefits of YRS. However, a common limitation identified in these studies is the lack of focus on the challenges and firsthand experiences of creators regarding YRS impact on the growth and success of to medium sized content creators. It would be valuable for research to explore how YRS is utilized differently by content creators compared to larger channels, as well as how these creators navigate the unique challenges and opportunities associated with this approach.

1.5 Conclusion of Literature Review

The studies mentioned above focused on analyzing the YouTube Recommendation System and how creators view it. It would be beneficial, for research to explore the perspectives of viewers. How they engage with YRS suggestions related to Small & Medium Content Creators (SMCs). Additionally' considering the nature of YRS there is a necessity for research to evaluate its effects, on SMCs within the YouTube platform.

This systematic literature review (SLR) section of this study serves as the basis, for guiding future research. It doesn't eliminate the necessity, for conducting an original research to create fresh insights and address research queries conclusively. As a result, this SLR section would establish a foundation by examining studies and pinpointing areas where further research is needed. Subsequently a distinct research initiative could be developed to fill these gaps by gathering data and uncovering discoveries using specific methodologies.

The systematic literature review section that was conducted by me using existing literature explored how the YouTube Recommendation System affects small and medium sized content creators and what are the actionable guidelines that can be proposed for them to overcome and successfully navigate the YouTube Recommendation System. The findings of this systematic literature review highlighted the obstacles and challenges that are faced by small content creators in gaining visibility for their videos and success on the YouTube platform. As per the existing literature on the topic, the previous studies have identified that the YouTube Recommendation System tends to favor larger and more established

channels in the platform when comparing to the smaller channels. But still the previous studies have not explored the reasons for it and they have not provided any actionable guidelines for them to overcome and successfully navigate the YRS to achieve the success. Therefore, the literature review section concludes by emphasizing the need for a future research to generate new findings on this and definitively address the research questions of the study.

2. METHODOLOGY

2.1 Research Design

This study uses a mixed methods approach to explore how the YouTube Recommendation System (YRS) affects small and medium sized content creators (SMCs) and offers practical advice, on how to navigate it. By blending both qualitative and quantitative data gathering techniques it aims to gain insight into the obstacles and possibilities that SMCs encounter, in the YRS environment.

Justification for Mixed Methods:

- RQ1 & RQ2: To truly grasp how the YRS influences the discoverability and success of SMCs we need to consider viewpoints. Surveys can give us numbers, on discoverability and perceived success factors while interviews offer stories, from SMCs dealing with the YRS in real life.
- RQ3: Developing actionable guidelines necessitates both quantitative data (e.g., identifying trends in successful creators' strategies) and qualitative data (e.g., understanding the specific challenges faced by SMCs) to propose solutions for both creators and the platform.

Specific Methods Employed:

A research study was carried out involving a **survey** distributed to a group of YouTube content creators (SMCs) to collect data, on how they interact with the YouTube Recommendation System (YRS) including metrics such as views and click through rates as factors contributing to their perceived success like subscriber growth and engagement. Moreover, detailed **interviews** were conducted with a subset of SMCs to delve into their strategies for navigating the YRS challenges they encountered and suggestions for improvements. Additionally, **YouTube Studio Analytics reports** were reviewed with the creators' consent to understand performance indicators (KPIs) related to discoverability and success within the YRS including metrics such as watch time and audience

demographics. By utilizing these approaches; a mixed methods design was applied in this study to thoroughly investigate the impact of the YRS, on SMCs.

2.2 Data Collection

2.2.1 Survey

Survey Instrument Design:

The survey I used was a Google form questionnaire that participants filled out themselves aiming to gather information from small and medium sized content creators, on YouTube. The questionnaire included types of questions to collect both quantitative and qualitative data.

- Questions about Demographics - These questions asked for basic details like the participants' channel focus experience in content creation and number of subscribers.
- Likert Scale Questions - These questions used a scale (e.g. strongly disagree to agree) to gauge how participants viewed the YRS, its importance and their feelings about challenges with discoverability.
- Multiple Choice Questions - Participants could choose factors they believed were important for reaching YRS or the main obstacles they faced in getting noticed.
- Open Ended Questions - These allowed participants to share more, about their experiences and suggest ways to enhance the YRS for SMCs.

The survey included questions listed within it ensuring a mix of closed ended and open ended formats to capture both structured data and detailed insights.

Sample Size:

A sum of 104 responses were gathered through the survey guaranteeing a dataset with scope, for examination. In order to improve the inclusiveness of the results the sample consisted of creators, from categories and various geographic locations globally.

Survey Distribution:

To reach the relevant sample of SMCs, the Google form survey was distributed through various online platforms:

- Social Media Groups: The survey was shared in relevant public and private Facebook groups geared towards YouTube content creators.
- Messaging Apps Chat Groups: YouTube Content Creators' group chats on platforms like WhatsApp and Telegram were targeted for survey distribution.
- Online Communities and Forums: Online forums and communities specifically catering to YouTube creators were also leveraged for the distribution.

Strategies for Response Rate and Representativeness:

To ensure a response rate and a sample that accurately represents content creators worldwide I utilized the strategies;

- Targeted Sharing;- I posted the survey, in communities and groups specifically tailored for YouTube content creators to maximize the likelihood of engaging with a diverse range of creators.
- Multilingual Support;- The survey was translated into various languages to ensure inclusivity when reaching out to a global audience.
- Monitoring and Adjustments;- I closely monitored the responses to ensure our sample was inclusive. If necessary adjustments were made to our distribution methods to reach a spectrum of content creators across regions and categories.

By applying these approaches, the survey was able to gather insights from a group of YouTube content creators providing meaningful perspectives on their platform experiences and suggestions, for improvements.

2.2.2 Interviews

Participant Recruitment:

To recruit people, for the interviews I used the following methods:→

- Selection Criteria: I reached out to individuals who see themselves as medium content creators (SMCs) on YouTube. To qualify they had to have a channel with than 100 subscribers but than 15,000 subscribers and had been actively making content in the last 6 months. We didn't include creators with established channels or those who hadn't posted content recently.

- Recruiting Approaches: I employed strategies to connect with potential interviewees;
    - Online Communities; Messages seeking participants were shared in communities and forums for YouTube content creators outlining the criteria for SMCs.

    - Social Media Groups; I targeted groups on platforms like Facebook, WhatsApp and Telegram that catered to YouTube creators to invite participants.

    - Snowball Sampling; Initial participants were asked if they could recommend other SMCs who might want to take part in the interviews while adhering to ethical guidelines, for snowball sampling.

Ensuring SMC Status:

When I first contacted the participants I asked them about the size of their YouTube channel and the type of content they produce to make sure they meet the SMC criteria. Some participants were also requested to provide a link, to their YouTube channel for verification purposes.

Sample Size:

A total of thirty-six (36) interviews were conducted with YouTube content creators. This group size was chosen to explore their interactions with the YouTube Recommendation System (YRS) and gather data until no new perspectives emerged from the interviews.

Interview Format:

The interviews were carried out in a structured manner one, on one. This format allowed for an approach following a predefined interview guide while giving participants the opportunity to delve into their experiences and insights.

Ethical Considerations and Informed Consent:

- Confidentiality: Participants were informed that their identities and any sensitive details would be kept confidential during the research process.
- Informed Consent: Each participant received a consent form explaining the research purpose, data collection methods, potential risks and benefits and their rights. Consent was obtained before conducting each interview.
- Data Storage: The interview recordings were secured. Only accessible, to the researcher. Recordings were made anonymous before analysis.

Following these procedures, a group of thirty-six (36) participants, with atrophy (SMC) were recruited for the interviews to ensure that their insights and viewpoints were included in the study.

2.2.3 YouTube Studio Analytics Reports

YouTube Studio serves as a hub, for content creators equipping them with tools to oversee their channels. It enables tasks such as video uploads, content management, community interaction and data analysis. Within YouTube Studio the Analytics suite empowers creators with information on their channels performance. This includes reports, on audience demographics, viewership patterns, engagement metrics and many more. By delving into these insights creators can gain an understanding of their audience refine their content approach, and grow their channel.

The following Fig. 2.1 and Fig. 2.2 shows a sample image of the YouTube Studio analytics dashboard.

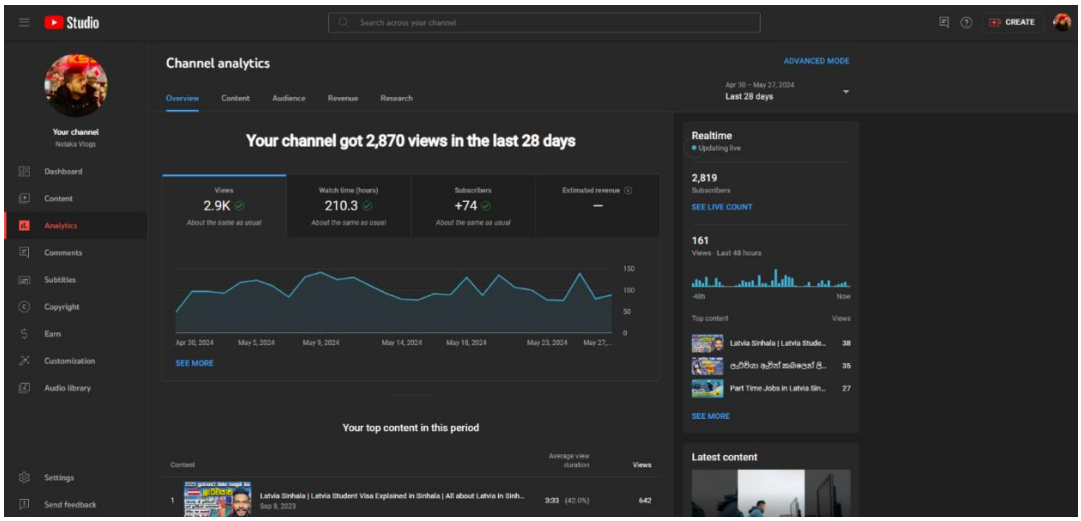

Fig. 2.1. YouTube Studio analytics dashboard

Diving deeper YouTube Studio provides video analytics reports that offer, in depth information on how each video's doing. These reports cover statistics like views watch time, audience retention and engagement metrics such as likes, comments and shares. By studying these reports, for each video content creators can understand what connects with their viewers and adjust their content to match their interests.

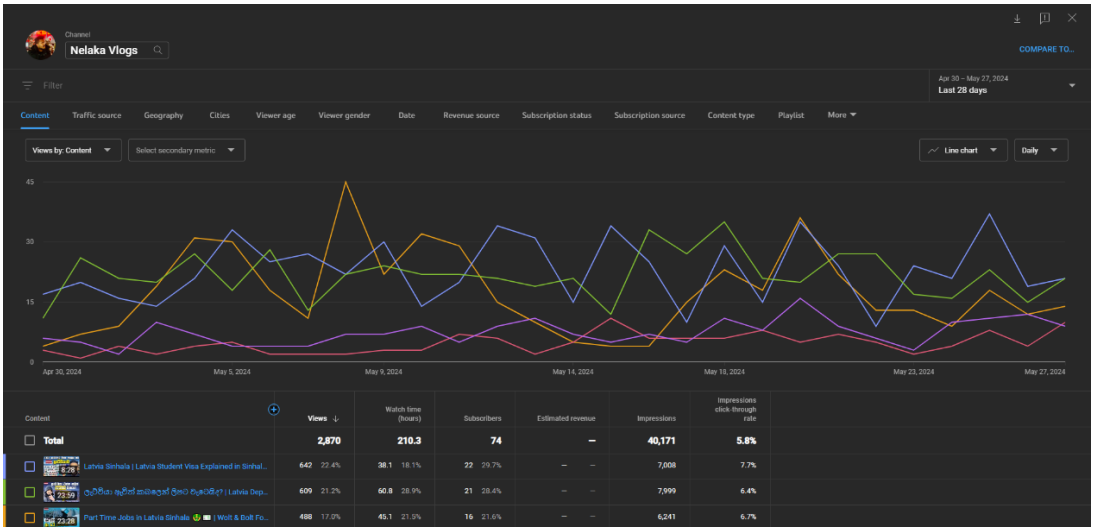

Fig. 2.2. YouTube Studio recent video analytics

In this section we will delve deeper into how data was collected for this research. I explored how reports, on video features were gathered from the creators who took part. After recruiting the 36 Medium Channels (SMCs) for interviews as mentioned in Section 2.2.2 these creators also shared their YouTube Studio Analytics reports for data collection.

Data Acquisition:

- Participants; The 36 SMCs who were interviewed were asked to provide their YouTube Studio Analytics reports for analysis.
- Report Selection; Each participant was requested to share their YouTube Studio Analytics reports for videos uploaded least three months before the data collection phase. This time frame aimed to provide insights into how the YRS behaved with established content on their channels.
- Variety of Reports; To understand how video characteristics impact the YRS creators were encouraged to share reports on videos, with attributes.

    - **Video Length** → Analyze the viewer preferences by requesting analytics, on videos medium length videos and long videos to understand what durations appeal to YRS.

    - **Thumbnails** → Investigate the impact of thumbnail design on video performance by requesting reports on visually appealing thumbnails versus basic thumbnails.

    - **Titles and Descriptions** → Assess the importance of well optimized titles and descriptions in YRS recommendations by comparing reports on videos with optimized and less optimized titles and descriptions.

    - **Engagement Techniques** → Understand how engagement metrics affect visibility by analyzing analytics on videos with engagement (such as likes, comments and shares) versus those, with engagement.

- **Content Topics** → Ask for reports, on videos discussing trends and evergreen content to study how the relevance and longevity of content impact performance.

- **Video Format** → Inquire about analytics on video formats like tutorials, entertainment, informational videos, product reviews and vlogs to understand how diversity in formats influences viewer engagement and retention.

- **Viewer Engagement** → Request reports comparing the performance and viewer interaction between streams and pre--recorded videos to assess the effectiveness of content delivery methods.

- **Upload Frequency** → Seek analytics on channels with both irregular upload schedules to explore how consistency in uploading affects outcomes.

- **Audience Demographics** → Ask for reports on videos tailored to segments as well, as general audiences to evaluate the impact of audience targeting on algorithm based recommendations.

Additional Points to Consider :-

- The specific details requested for reports, such, as the category of videos and upload dates can be customized based on the focus of the research and insights gathered from interviews.

- The analytics reports included data aligned with the research goals to safeguard the privacy of content creators.

Next Steps:

The YouTube Studio Analytics reports that have been collected will undergo an analysis in Section 2.3.3 (Analysis of YouTube Studio Analytics Reports) to pinpoint factors influencing the performance of Small and Medium Channels within YouTubes ecosystem. The results of this analysis, combined with interview findings will play a role in formulating a framework that outlines the factors contributing to success, for small and medium sized YouTube channels.

2.3 Data Analysis

2.3.1 Survey Data Analysis

The survey data was examined using statistics to grasp the experiences and viewpoints of SMCs regarding the YouTube Recommendation System (YRS).

- Quantitative Analysis; ended queries (Likert scale, multiple choice) were assessed through frequency tables and percentages to showcase response distribution, for each query.

- Qualitative Analysis; Open ended queries were thematically analyzed to pinpoint recurring themes and insights regarding SMCs interactions with the YRS.

Survey Data Presentation:

The main discoveries from the survey data will be showcased through tables and visuals. These illustrations will portray;

- Demographics → How survey respondents are distributed based on their channel focus, content creation background and subscriber count.

- YRS Perceptions → SMCs understanding of the YRS and its significance for YouTube success.

- Challenges and Roadblocks → Difficulties encountered by SMCs in getting their videos noticed through the YRS.

- Techniques and Support → The methods utilized by SMCs to enhance their content for the YRS and the resources they use to gain knowledge, about it.

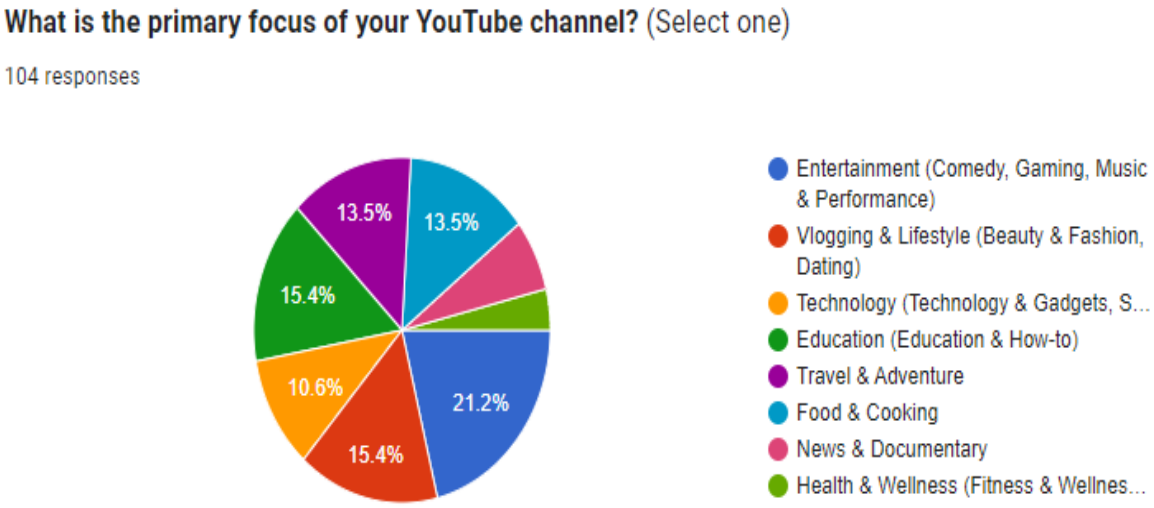

Fig. 2.3. Primary focus of YouTube channels

This pie chart depicts the primary focus of different YouTube channels of different content creators. According to the survey, it shows that most of the responded SMCs are based on Entertainment content with Comedy, Gaming, Music & Performance. The second most focus goes on the contents regarding Vlogging & Lifestyle and Education. 13.5% of YouTube channels focus on Travel & Adventure and Food & Cooking.

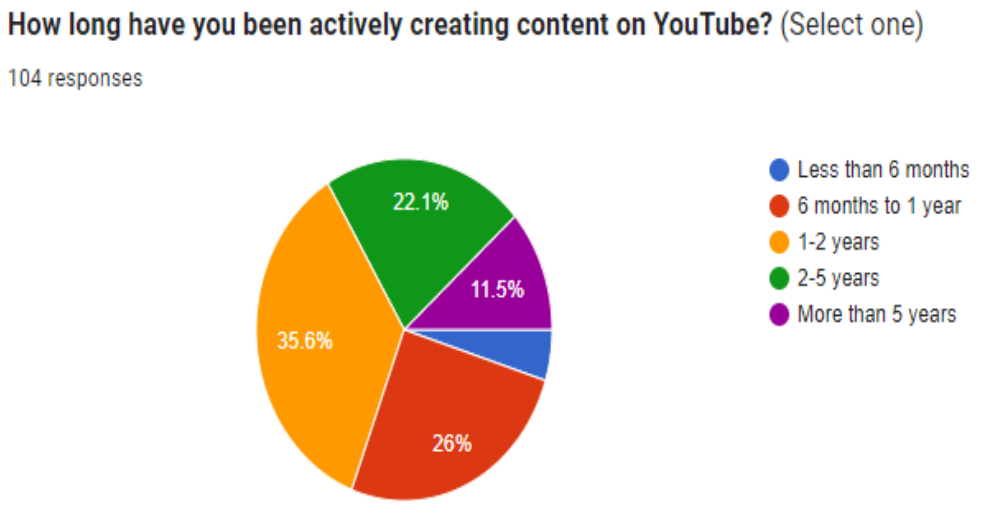

Fig. 2.4. The age of YouTubers

This pie chart illustrates how long have the responded SMCs been actively creating content on YouTube. With the analysis of responses, we can conclude that most of them were actively creating content on YouTube for around 1-2 years.

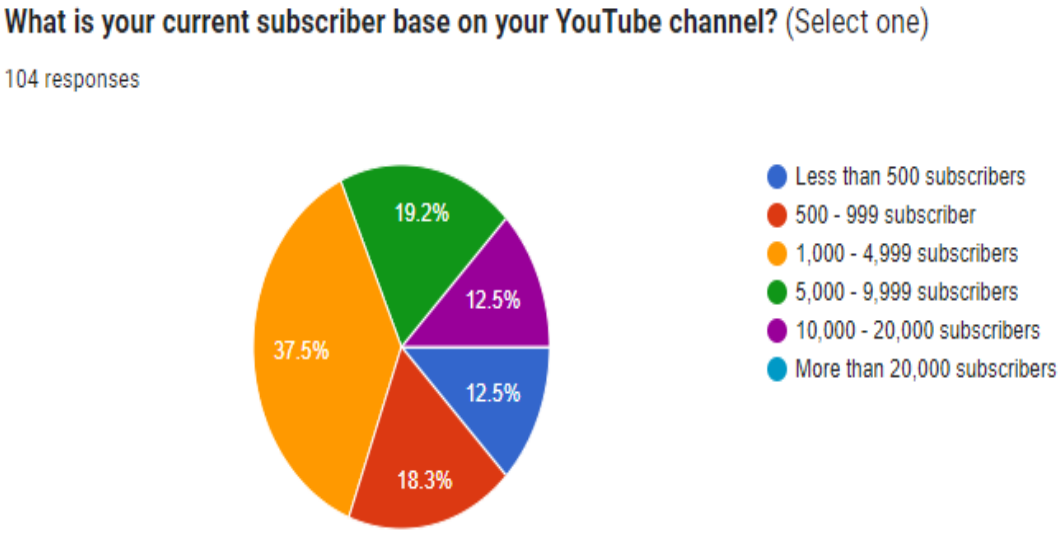

Fig. 2.5. Current subscribers base

The above pie chart shows the current subscribers base on the YouTube channels of responded SMCs to the survey. 37.5% of YouTube channels have 1,000 - 4,999 subscribers while 19.2% of channels have 5,000 - 9,999 subscribers.

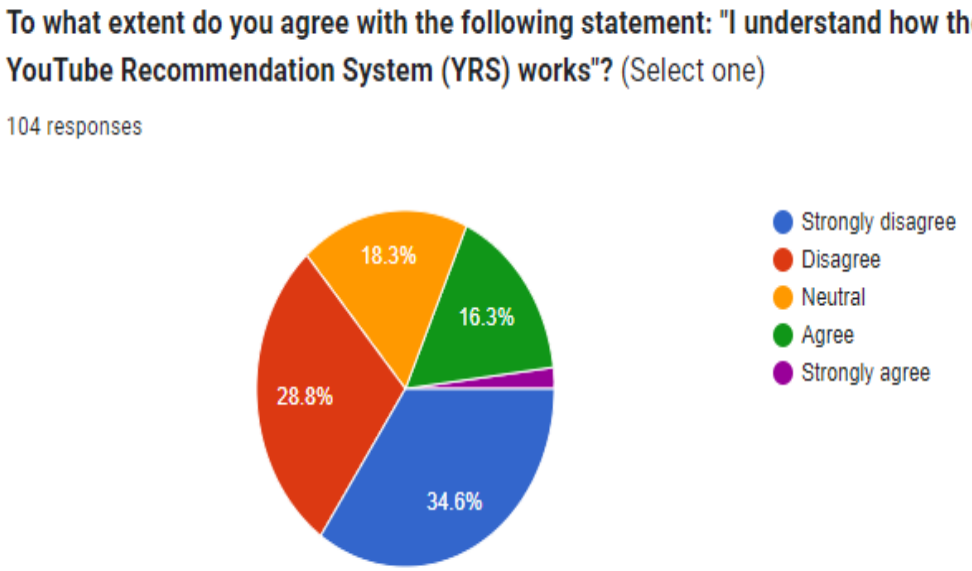

Fig. 2.6. Understanding about the YRS

This pie chart displays the responses of to what extent the participated SMCs agree with the following statement: “I understand how the YouTube Recommendation System (YRS) works"? 34.6% of YouTubers Strongly disagree with the statement while 28.8% of YouTubers Disagree with the statement. Only 16.3% of YouTubers agree with the statement. Therefore, it clearly shows that, 63.4% of the participants do not have an idea about how YRS works.

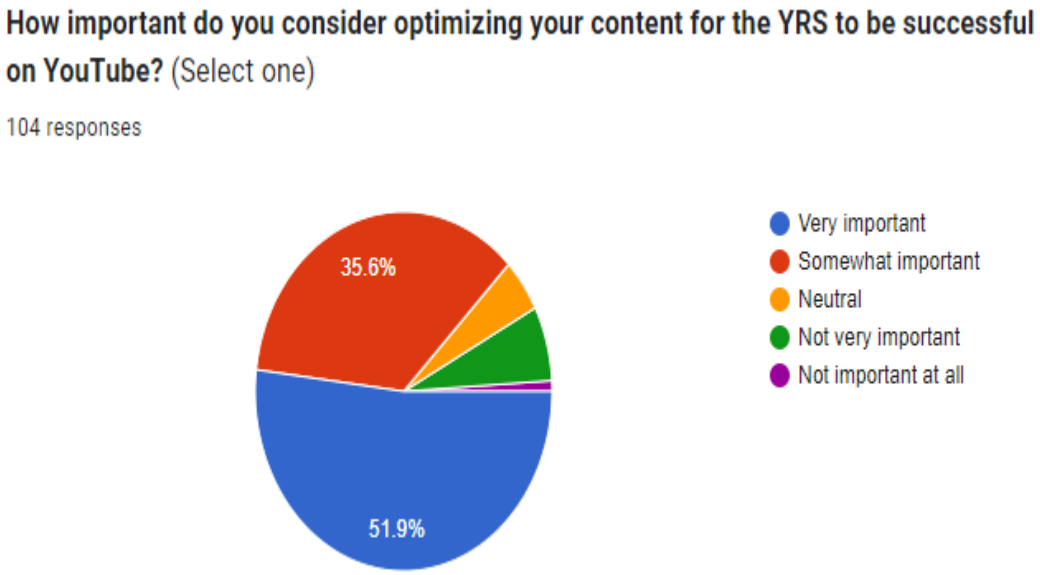

Fig. 2.7. Understanding about the importance of content optimization

This above pie chart represents the levels of how important the SMCs consider optimizing their content for YRS to be successful on YouTube. 51.9% have responded that it is very important to consider optimizing their content for YRS to be successful on YouTube while 35.6% of them say that it is somewhat important to consider optimizing their content for YRS to be successful on YouTube.

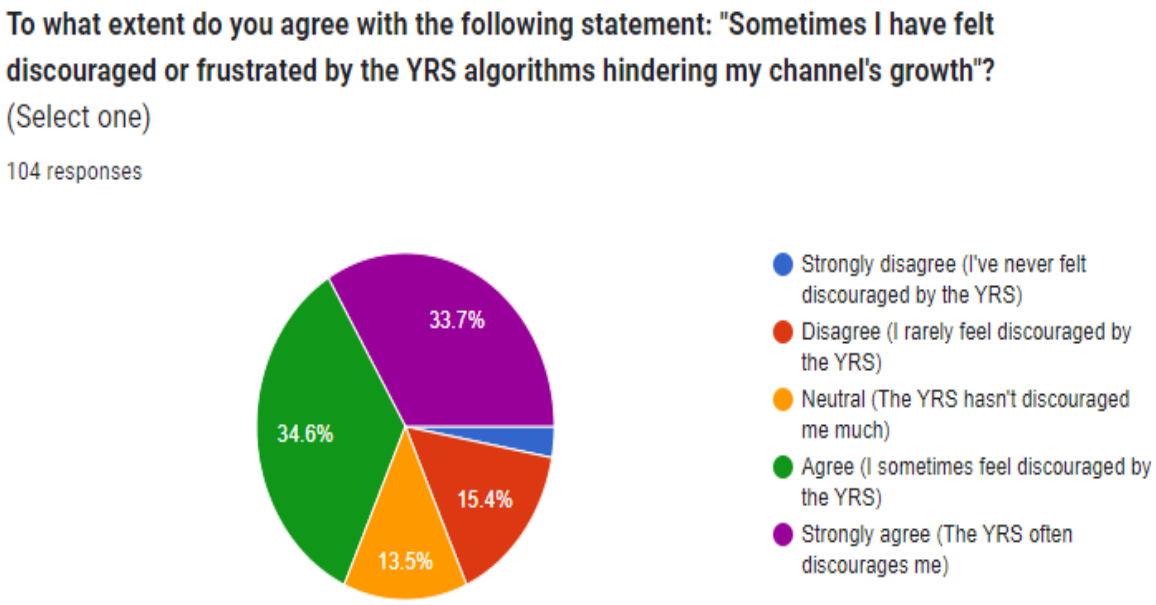

Fig. 2.8. Frustration level with YRS

The above pie chart displays the responses of to what extent the SMCs agree with the following statement: “Sometimes I have felt discouraged or frustrated by the YRS algorithms hindering my channel's growth"? The highest number of SMCs have been agreed with this. It was about 34.6%. The percentage of SMCs who have been strongly agreed with the statement is 33.7%. 13.5% of SMCs had a neutral feeling with the statement while 15.4% of them disagreed with the statement.

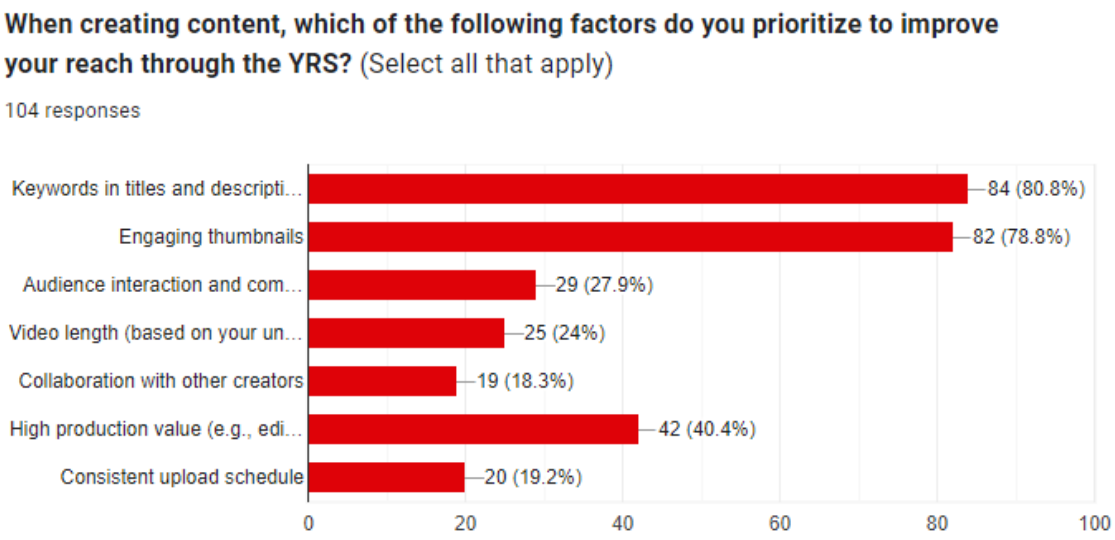

Fig. 2.9. Most prioritizing factors when creating content

The above chart shows a comparison of seven different factors that content creators use to prioritize to improve their reach through the YRS. According to the survey results, it shows that the highest number of content creators on YouTube use Keywords in titles and descriptions. It is 80.8% out of all the factors. The next most used factor is engaging thumbnails. The least used factor is collaboration with other creators.

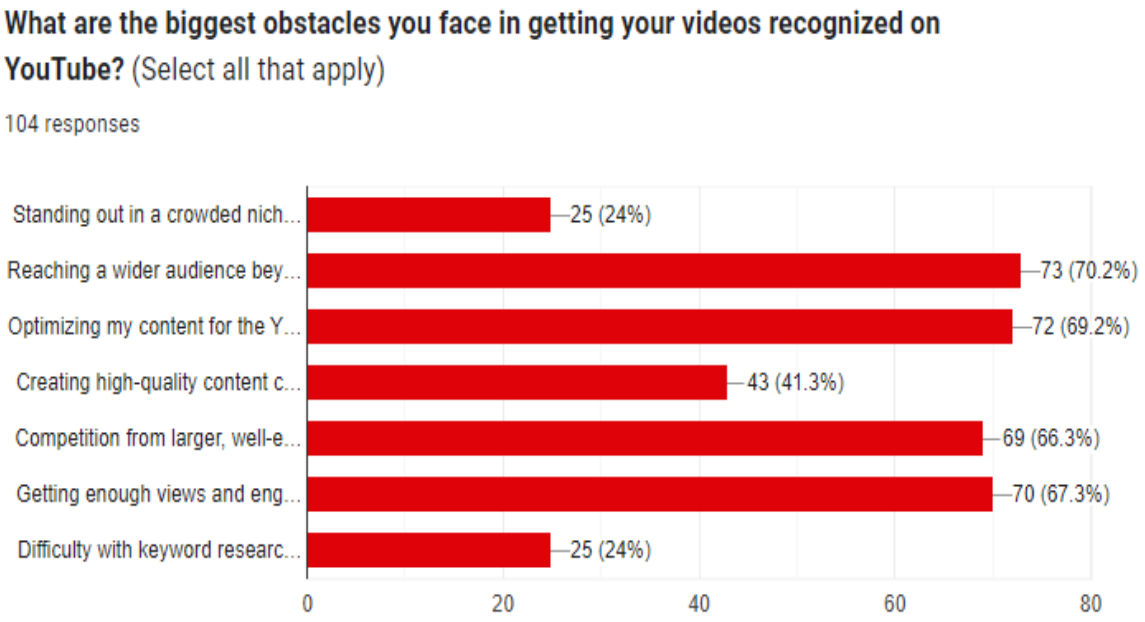

Fig. 2.10. Biggest obstacles facing

According to the above chart, it represents the obstacles that SMCs face in getting their videos recognized on YouTube. With the results, we can conclude that most SMCs face difficulties in reaching a wider audience beyond their current subscribers. The next difficulty that most YouTubers face is the optimizing difficulty in their content for the YouTube Recommendation System (YRS).

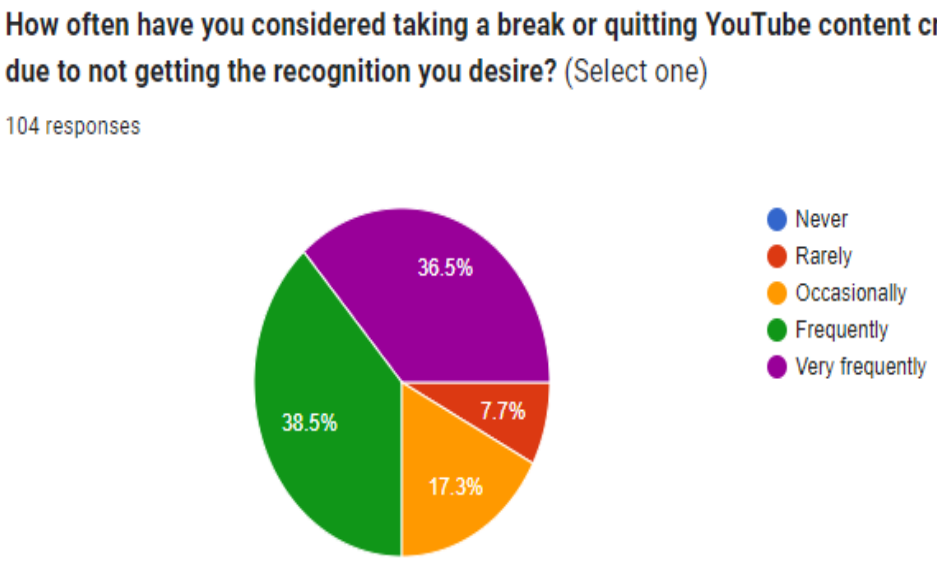

Fig. 2.11. Consideration level of taking a break from YouTube

This pie chart shows how often the SMCs considered to take a break or quit YouTube content creation due to not getting the recognition they desire. 38.5% frequently considered to take breaks or quit while 36.55 very frequently do it. 17.3% of SMCs occasionally considered to take breaks or quit. The lowest percentage is 7.7% and that percentage of SMCs rarely considered to take a break or quit YouTube content creation due to not getting the recognition they desire.

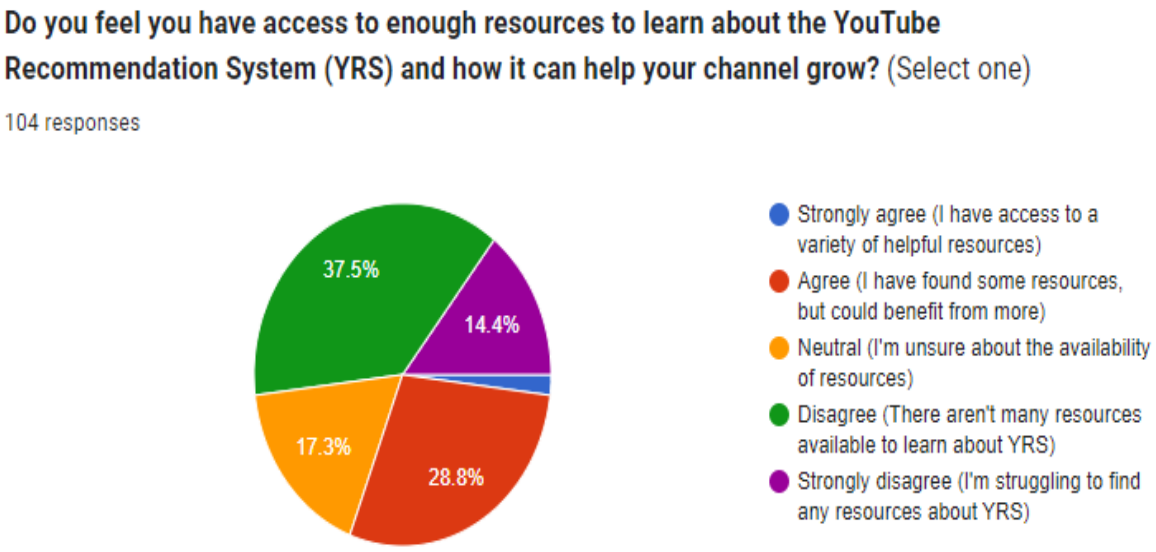

Fig. 2.12. Thoughts about available resources to learn about YRS

The above pie chart shows the results of the following question; “Do you feel you have access to enough resources to learn about the YouTube Recommendation System (YRS) and how it can help your channel grow?” The highest number of SMCs have disagreed with this. It is 37.5% as a percentage. 28.8% of SMCs have agreed with this while 17.3% of them have a neutral feeling.

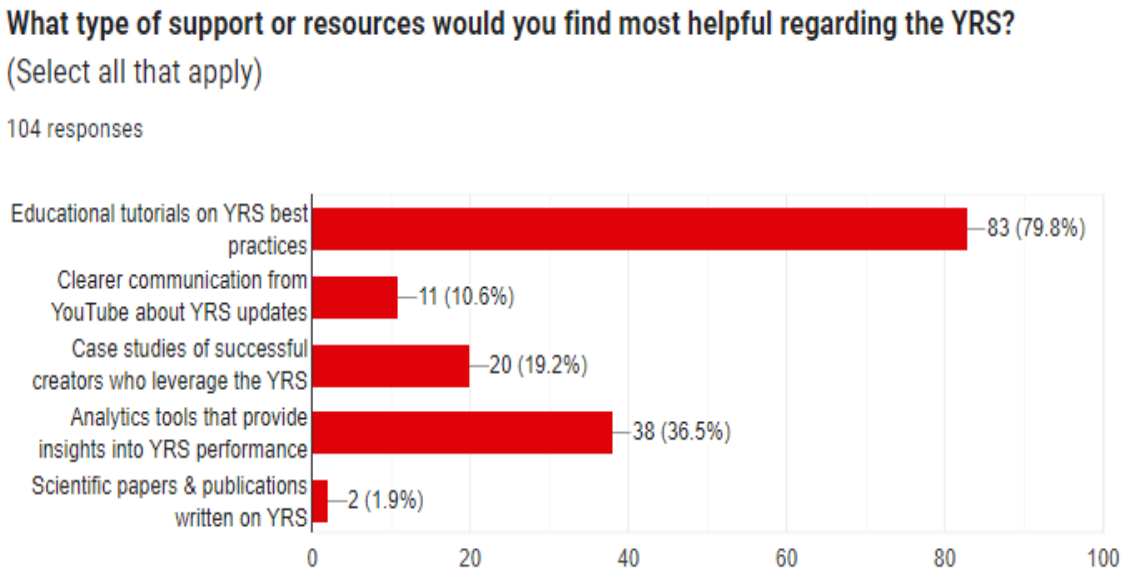

Fig. 2.13. Types of support or resources

The above chart shows the suggestions of SMCs about the types of support or resources would they find most helpful regarding the YRS. The highest number of SMCs responded that Educational tutorials on YRS best practices would be most helpful regarding the YRS. 36.5% of SMCs also say that Analytics tools that provide insights into YRS performance will be helpful regarding YRS as the second type of support or resources that would be helpful regarding YRS.

2.3.2 Interview Data Analysis

Transcription and Preparation:

Transcription:

- All the interviews were recorded in format and transcribed word, by word. This method was used to ensure that every single response from the participants was accurately captured.

- Each transcript underwent a review. Was cross referenced with the audio recordings to correct any errors in transcription.

Data Organization:

- To organize the data I utilized Atlas.ti, a data analysis software, which helped me to streamline the coding and analysis process.
- Every participant was given an identifier to maintain confidentiality while allowing for cross referencing during the analysis phase.

Coding Process:

Initial Coding:

- I began with a coding approach, where each transcript was examined line by line. Codes were then assigned to statements. Phrases relevant to our research questions.
- This method helped me create a list of codes that reflected the various themes and patterns present, in the data.

Focused Coding:

- In the process of coding I polished the codes first organizing them into more general categories or themes.
- Then I combined similar codes. Kept unique ones to highlight specific perspectives.
- Some of the sample codes and themes I used were "Thumbnail Design " "Viewer Engagement," "Content Consistency," and "Algorithm Understanding."

Axial Coding:

- The researchers analyzed how different codes were connected to uncover themes and sub themes. They searched for patterns and links that tied together parts of the participants experiences.
- As an example, under the theme "Engagement Techniques " there could be sub themes such as "Calls to Action " "Response, to Comments " and "Live Interaction."

Thematic Analysis:

Theme Development:

- The primary ideas and subcategories discovered through the coding process were examined in detail to uncover trends, within the data.
- Themes were crafted to summarize the elements impacting the achievements of content creators on YouTube.

Illustrative Quotations:

- Chosen quotes from participants were used to exemplify each theme. These quotes offered insights, from interviews showcasing creators' viewpoints and experiences.

- Following Fig. 2.14 shows a visual depiction of the coding process outlining how data was structured into themes and subcategories.

Fig. 2.14. Coded data

Comparison with Quantitative Data:

- The qualitative themes were compared to the results of the analysis, in YouTube Studio Analytics reports. This comparison helped to confirm the insights and provided an understanding of the factors that impact success, on YouTube.

Validation and Reliability:

Member Checking:

- A select group of participants was asked to review findings to ensure accuracy and credibility. Their feedback was used to refine themes and draw conclusions.

Inter-coder Reliability:

- To improve consistency another researcher independently analyzed a portion of transcripts. The coding results were compared discrepancies were addressed, ensuring uniform and dependable coding practices.

2.3.3 YouTube Studio Analytics Reports Analysis

The analysis aimed to identify key algorithmic and other success factors from the YouTube Studio Analytics reports to provide actionable guidelines for small and medium-sized content creators.

Data Compilation:

- Collected YouTube Studio Analytics reports for videos with diverse attributes, including various video lengths, thumbnail designs, titles, descriptions, engagement levels, content types, upload frequencies, and viewer demographics.

Metric Extraction:

Extracted key metrics from each report focusing on algorithmic factors known to influence success are presented here:

- Click-Through Rate (CTR): The percentage of viewers who clicked on the video after seeing the thumbnail of the video.
- Watch Time: Total minutes watched of the video.
- Audience Retention: Percentage of the video watched on average.
- Average View Duration: Average time of viewers spend by watching the video.
- Engagement Metrics: Number of likes, comments, shares, and overall engagement rate.
- Subscriber Growth: Number of new subscribers gained from each video.
- External Traffic Sources: Contribution of traffic from external sources like social media and some other websites.
- Suggested Videos: Performance in YouTube's suggested videos section.
- Search Rankings: Visibility and performance in YouTube search results.

Descriptive Statistics:

- I used Microsoft Excel and R studio to calculate statistics (such as mean, median and standard deviation) for each important metric. This helped me grasp the performance and distribution of the data.

Comparative Analysis:

- CTR Analysis; I examined the click through rates of videos featuring thumbnail designs and titles to assess how visual attractiveness and keyword optimization influence click rates.

- Watch Time and Retention Analysis; I investigated the relationship, between video length, content genre and average viewing time to uncover trends, in retention.

- Engagement Metrics Analysis; I looked into how likes, comments and shares influence the performance of videos including their visibility, in suggested video lists.

- Subscriber Growth Analysis; I identified the factors in videos that lead to an increase in subscribers focusing on aspects like content quality, upload frequency and levels of engagement.

- Traffic Sources Analysis; I assessed how effective external sources are in driving views and engagement to videos emphasizing the significance of cross promotion and having a presence on social media.

- Search Ranking Analysis; I examined how SEO optimization (in titles, descriptions and tags) affects search rankings and the discoverability of videos

Pattern Identification:

I utilized correlation and regression analysis tools, in IBM SPSS and R to spot patterns and trends within the data. For instance;

- A high click through rate (CTR) is linked to longer watch times and better audience retention.
- Keeping an upload schedule is associated with subscriber growth and increased engagement rates.
- Additionally → optimizing content with keywords leads to search rankings and visibility, in suggested videos.

Validation and Reliability:

Triangulation:

- This process involved in verifying findings with qualitative insights from interviews to ensure consistency and reliability. This approach helped me to confirm that the identified success factors were strong and applicable, across data sources.

Peer Review:

- The study underwent an evaluation, by industry peers and digital media specialists familiar with YouTube content creation. Their input was integrated to the study to enhance the analysis and validate its precision.

Through employing an approach, the research encompassed essential algorithmic elements and other determinants that impact the prosperity of lesser known content producers, on YouTube. The acquired knowledge guided the formulation of recommendations to aid these creators in navigating the YouTube Recommendation System.

2.4 Conceptual Framework Development

This section aims to outline the creation process of a framework that summarizes the elements affecting the achievements of small and medium sized content creators, on YouTube. The framework combines insights gathered from in depth discussions and detailed analysis of data from YouTube Studio analytics reports. Bringing Together Qualitative and Quantitative Results.

2.4.1 Integration of Qualitative and Quantitative Findings

The formulation of the framework required blending information from both discussions and quantitative data extracted from YouTube Studio analytics reports. This combination of methods guaranteed a comprehension of the factors impacting success, on YouTube.

Qualitative Insights:

- Thumbnails and Titles
- Audience Engagement
- Consistent Upload Schedule
- Content Quality and Type
- SEO Practices

Quantitative Findings:

- Click-Through Rate (CTR)
- Watch Time
- Audience Retention
- Engagement Metrics
- Traffic Sources

2.4.2 Identification of Key Factors

Based on the integrated findings, the following key factors were identified as critical for the success of small and medium-sized content creators:

Algorithmic Factors:

- Click-Through Rate (CTR)
- Watch Time
- Average View Duration
- Audience Retention
- Session Watch Time
- End Screen and Card Click-Through Rate
- Engagement Metrics
- Impressions and CTR
- Video Quality Signals
- Upload Frequency and Consistency

- Viewer Demographics and Behavior
- Content Freshness
- Search and Discovery (SEO)
- Channel Authority
- Viewer Satisfaction

Supporting Success Factors:

- Content Quality and Relevance
- Audience Interaction
- Calls to Action
- Content Planning and Variety
- External Promotion
- Personal Branding and Growth
- Accessibility and Mobile Optimization

2.4.3 Development of the Conceptual Framework

This conceptual framework was created by outlining the connections, among these elements and how they impact the achievements of small and medium sized creators on YouTube. It visually demonstrates the interplay of these elements and their collective impact, on channel success.

Framework Components:

Visual Representation of Key Factors:

The framework includes a visual model that displays the key factors and their interconnections.

Categorization of Factors:

- Content Creation Factors: Thumbnails, Titles, Description, Content Quality, and Type.

- Engagement Factors: Audience Engagement, Consistent Upload Schedule.

- Performance Metrics: CTR, Watch Time, Average View Duration, Audience Retention, Session Watch Time, End Screen and Card Click-Through Rate, Engagement Metrics, Impressions and CTR.

- Discovery and Visibility Factors: SEO, Traffic Sources, Content Freshness.

- Channel Authority Factors: Viewer Demographics and Behavior, Channel Authority, Viewer Satisfaction.

- Supporting Factors: Personal Branding, External Promotion, Accessibility, Mobile Optimization.

Interaction and Influence:

- Content Creation Factors directly impact on → CTR, Watch Time, and Audience Retention.
- Engagement Factors Influence on → Engagement Metrics and overall viewer loyalty.
- Performance Metrics are critical for → the YouTube Recommendation System and overall channel visibility.
- Discovery and Visibility Factors enhance → the likelihood of content being recommended and discovered by new viewers on YouTube.
- Channel Authority Factors build → long-term credibility and viewer satisfaction.
- Supporting Factors strengthen → overall channel strategy and outreach on YouTube.

Framework Diagram:

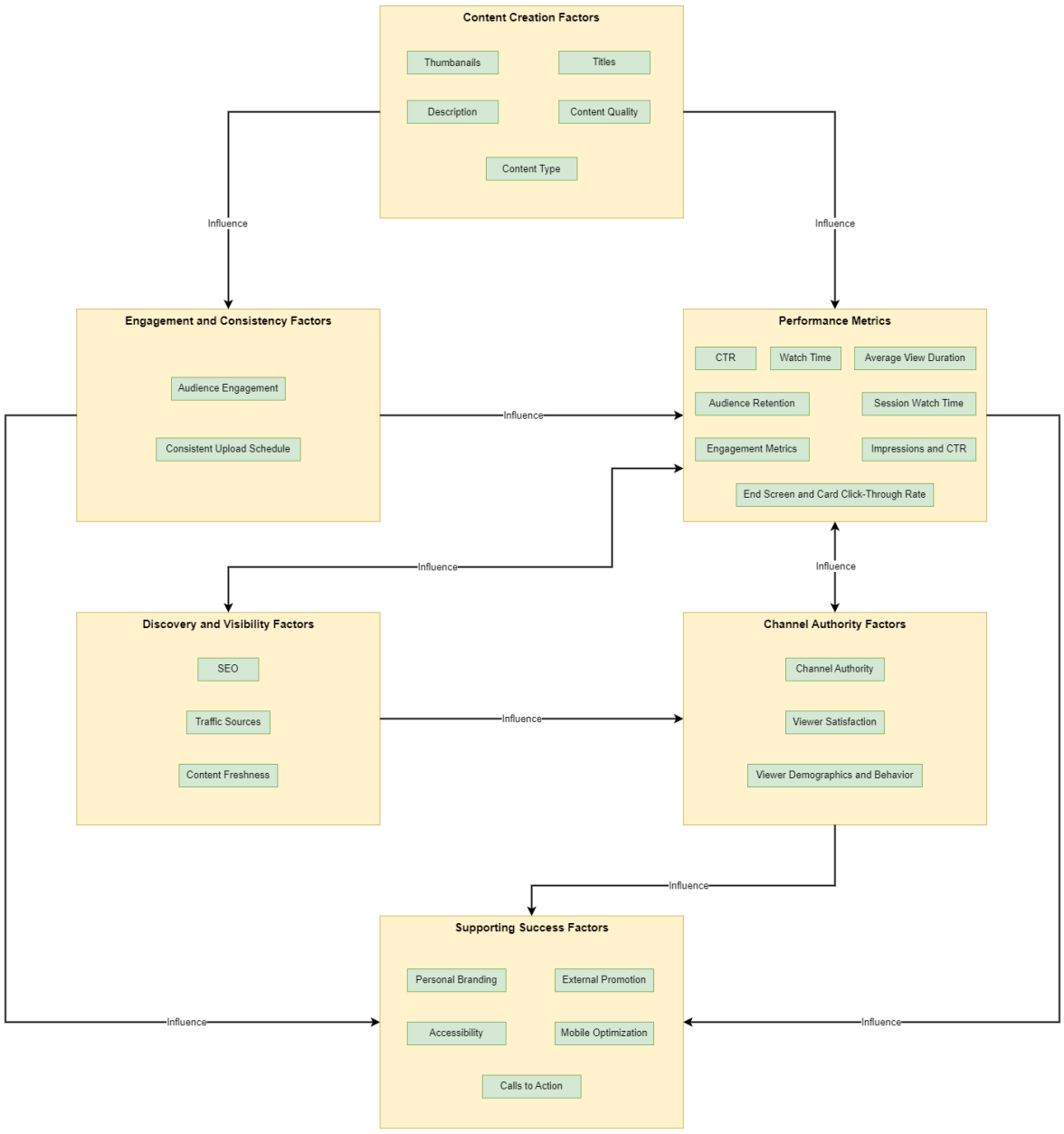

Fig. 2.15. Conceptual framework diagram

2.4.4 Validation and Refinement

To ensure the validity and reliability of the conceptual framework, the following steps were taken in this study:

Expert Review:

The initial structure underwent evaluation, by professionals in the field. Experienced and experts level of YouTube content creators confirmed the accuracy of the identified elements and their connections.

Pilot Testing:

A small group of content creators conducted a trial run of the structure to collect feedback on how practical and effective it's.

Iterative Refinement:

Taking into account feedback from experts and the pilot test adjustments were made to the structure to better match real life situations and challenges encountered by content creators on YouTube.

Conclusion:

This conceptual framework outlined in this section offers an overview of the factors that impact the success of small and medium sized content creators, on YouTube. By merging quantitative discoveries this framework provides insights to help creators enhance their content strategies and boost their performance on the platform.

2.5 Actionable Guidelines Development

In this section we aim to lay out a plan, for creating tips that can help medium sized content creators effectively navigate the YouTube Recommendation System (YRS) and find success. These tips are crafted from the elements highlighted in the framework and aim to offer hands on guidance rooted in a mix of qualitative and quantitative data examination.

2.5.1 Synthesis of Findings

The actionable guidelines were developed by synthesizing findings from:

- Qualitative interviews with content creators.
- Quantitative analysis of YouTube Studio analytics reports.
- Insights from the conceptual framework, which identified some critical success factors.

2.5.2 Structuring the Guidelines

The guidelines are structured around the key factors influencing YouTube success, grouped into the following categories as follows:

- Content Creation
- Engagement and Consistency
- Performance Metrics
- Discovery and Visibility
- Channel Authority
- Supporting Success Factors

2.5.3 Detailed Guidelines

1. **Content Creation**
    - **Thumbnails and Titles:** Ensure your videos stand out with eye catching thumbnails and SEO friendly titles to boost engagement. Get helps from AI tools like ChatGPT to generate good titles and descriptions as needed.
    - **Content Quality and Relevance:** Prioritize delivering top notch content that resonates with your target audiences needs and preferences.

- **SEO Practices:** Enhance the visibility of your videos by optimizing titles, descriptions and tags with keywords for search results.

2. **Engagement and Consistency**
    - **Audience Engagement:** Interact actively with your viewers by responding to their comments fostering community engagement through posts and encouraging participation.
    - **Consistent Upload Schedule:** Stay consistent in uploading content on a basis to keep your audience interested and coming back for more videos.
    - **Calls to Action:** Include calls to action, in your videos to prompt viewers to like, comment, share and subscribe.
3. **Performance Metrics**
    - **Click-Through Rate (CTR):** Enhance your click through rate by trying out thumbnails and titles to see what works best.
    - **Watch Time and Average View Duration:** Craft content that captivates viewers and keeps them engaged for periods.
    - **Audience Retention:** Incorporate hooks and captivating storytelling techniques to ensure that viewers stay interested, in your videos.
    - **Session Watch Time:** Prompt viewers to explore more of your content by utilizing end screens and playlists.
4. **Discovery and Visibility**
    - **SEO and Keywords:** Conduct keyword research to discover the terms your audience is searching for and integrate them into your content strategy.
    - **Traffic Sources:** Examine your traffic sources to determine where your views are originating from and optimize those channels accordingly.
5. **Channel Authority**

- **Consistency and Quality:** Establish credibility, for your channel by posting top notch/ high quality content regularly.
- **Viewer Satisfaction:** Engage with your audience regularly to gather insights into their preferences and enhance their experience.

6. **Supporting Success Factors**
    - **External Promotion:** Share your videos on social media platforms. Team up with fellow content creators to share your audience base.
    - **Personal Branding:** Craft a brand that connects with your viewers and sets you apart from others in the field.
    - **Accessibility and Mobile Optimization:** Make sure your videos are easily accessible, to an audience and optimized for viewing on all type of devices.

At the end of this study, a web application that provides personalized, actionable guidelines based on the user's channel was developed. The details of this web application, including its development process and functionality, will be discussed in the next section, "2.6 Web Application Development for Personalized Guidelines".

2.6. TubeGuru - Web Application Development for Personalized Actionable Guidelines

The development of a web application to provide personalized, actionable guidelines for small and medium-sized content creators on YouTube was an essential step to translate research findings into practical tools. This section outlines the methodology used to develop this web application that I named – “TubeGuru”.

2.6.1 Define the Inputs

In the stage of creating the web application I began by outlining the inputs essential for customizing the guidelines appropriately. These inputs were chosen in line, with the elements that impact success, on YouTube as outlined in our research. Key inputs encompassed →

- Channel size (number of subscribers)
- Average video length
- Average CTR (Click-Through Rate)
- Average watch time
- Engagement metrics (likes, comments, shares)
- Upload frequency
- Content type (educational, entertainment, vlogs, etc.)
- SEO optimization level (quality of titles, descriptions, tags)

2.6.2 Create the Database of Guidelines

A detailed database of rules was established, linking each rule to situations. For example - a rule, for channels with, under 1,000 subscribers could be; "Emphasize building a community and working together with content creators."

2.6.3 Design the Web Application

User Interface Design

A user-friendly interface was designed to allow users to input their channel details. This included:

- **Input fields**: Textboxes, dropdowns, sliders for ease of input.
- **Form layout**: Organized to ensure a smooth user experience.

Backend Logic Development

The backend logic was designed to handle user inputs and align them with the rules. A rule based system was used for this purpose. The following Fig. 2.16 demonstrates a sample pseudocode of the backend logic.

app.js | function getGuidelines(channelSize, avgC.js | dashboard.ejs

function getGuidelines(channelSize, avgC.js > ...

```
function getGuidelines(channelSize, avgCtr, avgWatchTime, engagementMetrics, uploadFrequency, contentType, seoLevel) {
    const guidelines = [];

    if (channelSize < 1000) {
        guidelines.push("Focus on community engagement and collaboration with other small creators.");
    }
    if (avgCtr < 5) {
        guidelines.push("Improve thumbnail and title design to increase CTR.");
    }
    if (avgWatchTime < 5) {
        guidelines.push("Create more engaging content to increase watch time.");
    }
    if (engagementMetrics < getAverageEngagement()) { // Placeholder function for average engagement
        guidelines.push("Encourage viewers to like, comment, and share your videos.");
    }
    if (uploadFrequency < 1) { // Assuming uploadFrequency is given in uploads per week
        guidelines.push("Upload content more consistently.");
    }
    if (contentType === 'educational') {
        guidelines.push("Continue creating high-value educational content to retain viewers.");
    }
    if (seoLevel < getHighSeoLevel()) { // Placeholder function for high SEO level
        guidelines.push("Optimize your video titles, descriptions, and tags with relevant keywords.");
    }

    return guidelines;
}

// Placeholder functions for average engagement and high SEO level
function getAverageEngagement() {
    // Implement the logic to get the average engagement value
    return 10; // Example value
}

function getHighSeoLevel() {
    // Implement the logic to get the high SEO level value
    return 8; // Example value
}

// Example usage:
const channelSize = 500;
const avgCtr = 3;
const avgWatchTime = 4;
const engagementMetrics = 7;
const uploadFrequency = 0.5; // Example: 1 upload every 2 weeks
const contentType = 'educational';
const seoLevel = 6;

const guidelines = getGuidelines(channelSize, avgCtr, avgWatchTime, engagementMetrics, uploadFrequency, contentType, seoLevel);
console.log(guidelines);
```

Fig. 2.16. Sample pseudocode of the backend logic

Personalization Algorithm

A personalized algorithm was created to prioritize guidelines based on the user s preferences. For example, if a channel has a click through rate but high watch time guidelines focusing on improving the click through rate are given priority.

2.6.4 Development Tools and Technologies

The following tools and technologies were used in the development of the web application:

- **Frontend**: HTML, CSS, JavaScript, and Nuxt.js for a dynamic and responsive UI.
- **Backend**: Node.js.
- **Database**: MySQL, for storing guidelines and user inputs.
- **Data Visualization**: D3.js, Chart.js for displaying analytics.

2.6.5 Testing and Validation

Following that extensive testing was carried out to validate input processing accuracy and the relevance of the guidelines. User feedback was used to refine the guidelines and enhance the usability of the application.

2.6.6 Deployment

Subsequently the application was launched on a cloud platform called Heroku. Key considerations, during deployment included ensuring security, scalability and optimal performance, under varying workloads. You can access the **TubeGuru** web application at https://tubeguru.online/.

Example User Journey

1. **Input Phase**: Users enter their channel details (e.g. "500 subscribers, average CTR 3%, average watch time 4 minutes").
2. **Processing Phase**: The backend will process these inputs and retrieves the most relevant guidelines from the database.
3. **Output Phase**: Users receive a set of personalized guidelines (e.g. "Focus on improving your thumbnails and titles to increase your CTR").

Example UI Mockup

- **Home Page**: Introduction to the tool and a form to enter channel details.

Fig. 2.17. TubeGuru home page

In a nutshell, this web application utilizes research discoveries to offer personalized insights, to small and medium sized content creators aiming to improve their prospects of achieving success, on YouTube.

2.7 Validation of Actionable Guidelines

The main focus of this thesis is to create actionable guidelines specifically designed for small and medium sized YouTube content creators. To test how well these actionable guidelines work, I carried out a trial, with a group of content creators. In this section I explain how I conducted the trial and what I found.

2.7.1 Validation Methodology

Selection of Content Creators

A group of 15 small and medium-sized content creators was selected from the previous group which I had interviews with to participate in the validation study. These creators were chosen based on the following criteria:

- Subscriber count between 100 and 15,000
- Active upload schedule with at least one video per week
- Willingness to implement the provided guidelines in their upcoming videos

Implementation of Guidelines

All content creators received custom guidelines from the **TubeGuru** web app. These guidelines covered suggestions, for thumbnails, titles, content quality, SEO techniques and ways to boost engagement and many more.

Monitoring and Data Collection

Over the span of a month the creators followed these guidelines and uploaded a set of videos. Then the performance metrics, for each video were closely captured, including:

- Click-Through Rate (CTR)
- Average Watch Time
- Audience Retention

- Engagement Metrics (likes, comments, shares)
- Subscriber Growth
- Video Views

2.7.2 Validation Results

Improvement in Key Performance Metrics

Following Table 2.1 summarizes the average improvements observed in key performance metrics for the participating content creators after implementing the actionable guidelines.

Table 2.1

Average improvements observed in key performance metrics

Metric	Before Implementation	After Implementation	Percentage Improvement
Click-Through Rate (CTR)	3.2%	5.1%	59%
Average Watch Time	3.5 minutes	5.2 minutes	49%
Audience Retention	45%	60%	33%
Engagement (Likes)	150 per video	220 per video	47%
Engagement (Comments)	40 per video	65 per video	63%
Subscriber Growth	100 per month	250 per month	150%
Video Views	1,000 per video	1,800 per video	80%

Creator Feedback

Content creators were quite pleased, with the personalized guidelines as per their feedback. Here are some qualitative key points that were mentioned by them →

- "I saw a boost in CTR after upgrading my thumbnails and titles."

- "Engagement skyrocketed when I started engaging with my audience in the comments section."
- "Implementing SEO tips resulted in search rankings, for my videos resulting in increased views."

2.7.3 Case Studies

Case Study 1: Educational Channel

A small educational YouTube channel, with 700 subscribers followed the actionable recommendations on enhancing content quality and optimizing for search engines. As a result, the average time viewers spent watching videos increased by 55%. The number of subscribers tripled during the evaluation period.

Case Study 2: Vlogging Channel

A medium sized vlogging channel boasting 3,500 subscribers utilized the guidelines to boost viewer engagement and maintain an upload schedule. The channel experienced a 70% surge in video views and doubled its monthly subscriber count.

2.7.4 Conclusion

This validation illustrated that the personalized actionable guidelines offered by the TubeGuru web application significantly boosted performance metrics, for the participating creators. These findings confirm the effectiveness of these guidelines. Highlight their potential to elevate the success of small and mid sized YouTube channels.

3. RESULTS

This chapter gives a summary of the findings, from the mixed method research, which involves analyzing survey data, interview data and reports from YouTube Studio Analytics. The creation of the conceptual framework, actionable personalized guidelines and the TubeGuru web application along with their validations and results were discussed in the Methodology section to highlight how these strategies are effective, in real world scenarios.

3.1 Results of Survey Data Analysis

The survey data analysis revealed significant insights into the impact of the YouTube Recommendation System (YRS) on small and medium-sized content creators (SMCs). These results were already presented in the previous section → 2.3.1 Survey Data Analysis.

The key highlights of the survey results are as follows:

Table 3.1

Key highlights of the survey results

Key Highlights	Result
Understanding of YouTube Recommendation System	Very Low
Frustration Level Due to YRS Algorithms	Very High
Chance of Taking a Break or Quitting	Very High
Availability of Learning Resources about YRS	Low

These findings underscore the challenges faced by SMCs in navigating and succeeding on the platform, highlighting the need for more accessible and comprehensive resources to understand and leverage YRS effectively.

3.2 Results of Interview Data Analysis

During the structured interviews with 36 small and medium sized YouTube content creators, a wealth of qualitative data was gathered and analyzed thematically. The key themes that surfaced closely mirror the results shedding light on the strategies and obstacles encountered by these creators.

Importance of Thumbnails and Titles

Findings:

- **CTR and Visual Appeal:** A lot of content creators highlighted how crucial thumbnails and video titles are. They often mention that a high click through rate is connected to appealing thumbnails and captivating titles. Creators have found that thumbnails featuring colors, clear text and expressive faces can really boost their videos click through rates supporting the data driven results.

Quotation: " I've seen an uptick, in my video views when I put effort into crafting eye catching thumbnails. Using brighter colors and larger easy to read text really seems to grab attention."

Table 3.2

Correlation of Thumbnail and Title Design with CTR (Qualitative Insights)

Theme	Number of Mentions	Sample Quotations
Visual appeal of thumbnails	28	"Thumbnails with expressive faces get more clicks."
Engaging titles	22	"Titles that create curiosity will attract more viewers to the videos."

Audience Engagement

Findings:

- **Building a Community:** Frequent interaction with viewers through comments and community posts was highlighted as essential for building a loyal audience. This engagement was found to be crucial for higher levels of likes, comments, and shares, which, in turn, increased video visibility in the YRS.

Quotation: "Engaging with my audience through comments has helped build a loyal community. They appreciate the interaction and are more likely to share my videos."

Table 3.3

Impact of Audience Engagement on Video Performance (Qualitative Insights)

Theme	Number of Mentions	Sample Quotations
Interaction through comments	30	"I make it a point to reply to every comment I am getting."
Community posts	18	"Using community posts keeps my audience engaged even between uploads."

Consistent Upload Schedule

Findings:

- **Regular Uploads:** Maintaining a consistent upload schedule was often highlighted as a tactic to keep viewers interested and engaged with the YouTube Channel. Content creators who uploads videos consistently to their channels noticed a big increase, in subscribers and watch time. Improved engagement rates, which is supported by data showing the impact of upload frequency.

Quotation: "Keeping up with an consistent uploading routine has been crucial, for expanding my channel. My audience anticipates content at times encouraging them to return for more."

Table 3.4

Influence of Upload Consistency on Subscriber Growth (Qualitative Insights)

Theme	Number of Mentions	Sample Quotations
Consistent upload schedule	26	"Regular uploads help maintain viewer interest."
Irregular posting	10	"Inconsistent posting schedules negatively impact the channel growth."

Content Quality and Type

Findings:

- **Value and Engagement:** High quality content that provided value to viewers, such as educational and how to videos, and other interesting videos was consistently mentioned as a success factor. These types of videos had higher watch times and retention rates, supporting the quantitative findings.

Quotation: " High quality, valuable content is what keeps viewers coming back. Educational videos, in particular, seem to do very well."

Table 3.5

Correlation Between Content Quality and Viewer Engagement (QualitativeInsights)

Theme	Number of Mentions	Sample Quotations
High-quality content	32	"Investing in good production values pays off."
Educational and how-to videos	24	"My how to videos have the best retention rates."

Search Engine Optimization (SEO)

Findings:

- **Optimized Content:** Content creators highlighted the significance of enhancing video titles, descriptions and tags with keywords to boost search rankings and enhance visibility. This coincides with the data indicating that SEO optimization plays a role, in influencing search rankings and exposure in recommended videos.

Quotation: "By tuning my video titles and descriptions with keywords I've noticed a considerable increase in my contents visibility, in search results. It's truly made a difference."

Table 3.6

Impact of SEO Optimization on Search Rankings (Qualitative Insights)

Theme	Number of Mentions	Sample Quotations
Keyword optimization	29	"Using the right keywords makes a huge difference in search rankings for videos."
Detailed descriptions	21	"A well crafted description boosts visibility."

By integrating these qualitative data with the quantitative data which comes from YT studio analytics reports analysis, this study provides a robust framework for understanding the key success factors for small and medium-sized content creators on YouTube to navigate the YouTube Recommendation system effectively.

3.3 Results of YT Studio Analytics Reports Data Analysis

In this section I will discuss the results of examining YouTube Studio Analytics Reports focusing on the other elements that impact the visibility and success of smaller YouTube content creators.

Overview of Findings

Upon reviewing the YouTube Studio Analytics Reports, various key factors affecting video success, on YouTube were identified. These factors encompass Click Through Rate (CTR) Watch Time, Audience Retention, Engagement Metrics, Subscriber Growth, Traffic Sources as performance in Search Rankings and Suggested Videos. Each of these elements plays a role, in how content's prioritized and promoted by the YouTube Recommendation System (YRS).

Click-Through Rate (CTR) Analysis

Findings:

The analysis found that the Click Through Rate (CTR) plays a role, in determining the success of a YouTube video. Videos with much higher CTR values tended to have more visibility and performance on the platform.

- **Thumbnail Design:** Videos featuring professionally crafted and attractive thumbnails received higher CTRs compared to those with simpler or less engaging thumbnails. For example → thumbnails with brighter colors, clear and larger text and expressive faces were more likely to attract clicks.
- **Title Optimization:** Titles that included relevant keywords, were clear and compelling, and created a sense of curiosity or urgency had higher CTRs. Titles with numbers (e.g. "Top 10 Tips") and questions (e.g. "How to...") were particularly effective.

Table 3.7

Average CTR Comparison by Thumbnail Design and Title Optimization

Thumbnail Type	CTR (%)	Title Type	CTR (%)
Professional Design	7.2	Keyword Optimized	6.8
Basic Design	4.5	Non-Optimized	3.9

Watch Time and Audience Retention

Findings:

Watch time and audience retention are critical for sustained success and higher rankings in the YRS.

- **Video Length:** Videos that ran for 10 to 20 minutes garnered the attention. Kept viewers engaged for longer periods. On the hand short videos, under 5 minutes saw retention rates but didn't hold viewers attention as long.
- **Content Type:** Educational and instructional videos tended to have watch times and higher viewer retention compared to vlogs and entertainment clips. This indicates that audiences show interest, in content that offers value.

Table 3.8

Average Watch Time and Retention Rates by Video Length and Content Type

Video Length	Watch Time (mins)	Retention Rate (%)	Content Type	Watch Time (mins)	Retention Rate (%)
Under 5 mins	4.2	75	Educational	15.3	65
10-20 mins	12.5	60	How-to	14.7	70
Over 20 mins	18.4	55	Vlogs	10.5	55

Engagement Metrics

Findings:

The engagement metrics such as likes, comments, and shares are vital indicators of a YouTube video's success and influence its visibility in the YRS ecosystem.

- **Likes and Comments:** Higher likes and comments are indicators that a video's likely to be promoted by the platform signaling its value and appeal to viewers.
- **Shares:** Additionally' the number of shares greatly influences a videos reach and visibility often leading to increased traffic, from sources and higher engagement levels on the platform.

Table 3.9

Average Engagement Metrics for High-Performing vs. Low-Performing Videos

Metric	High-Performing Videos	Low-Performing Videos
Likes	1,200	300
Comments	450	90
Shares	200	40

Subscriber Growth

Findings:

The increase, in subscribers was impacted by the caliber and regularity of content along with the level of interaction it received.

- **Consistent Uploads:-** Channels that consistently uploaded videos (at weekly) experienced a gradual rise in subscribers. Inconsistent posting patterns had an effect on subscriber numbers
- **Content Quality:-** Videos with a higher quality, with production values and valuable content resulted in increased subscriptions. Channels that concentrated on topics tended to attract devoted and engaged subscribers.

Table 3.10

Subscriber Growth by Upload Frequency and Content Quality

Upload Frequency	Average Monthly Subscriber Growth	Content Quality	Average Monthly Subscriber Growth
Weekly	350	High	500
Bi-weekly	200	Medium	300
Monthly	100	Low	100

Traffic Sources

Findings:

External sources of traffic were instrumental, in boosting the viewership and interaction of videos.

- **Social Media:** On social media platforms such as Facebook, Twitter and Instagram, WhatsApp videos that were shared experienced a surge in both views and engagement.
- **Collaborations:** Moreover, collaborations with YouTubers or influencers proved to be a strategy for attracting external traffic and enhancing engagement levels resulting in mutual benefits, for all involved parties.

Table 3.11

Traffic Sources and Their Impact on Views and Engagement

Traffic Source	Average Increase in Views (%)	Average Increase in Engagement (%)
Social Media	45	40
Collaborations	60	55
External Websites	30	25

Search Rankings and Suggested Videos

Findings:

The order of search results and the likelihood of being suggested in videos were greatly impacted by SEO strategies.

- **SEO Optimization:** Videos that had carefully crafted titles, descriptions and tags tended to rank in search results. Using keywords and providing descriptions played a significant role, in increasing visibility.
- **Viewer Engagement:** Having a better level of viewer engagement increased the probability of videos being featured in the suggested videos section leading to views and interactions.

Table 3.12

Impact of SEO Optimization on Search Rankings and Suggested Videos

SEO Factor	Average Search Ranking Position	Appearance in Suggested Videos (%)
Optimized Title	3	65
Optimized Description	5	60
Optimized Tags	4	62
Non-Optimized	10	30

Patterns and Trends

Findings:

The analysis revealed trends and patterns that underscore the interaction among elements of success.

- A high click through rate (CTR) is linked to viewing periods and audience retention.
- Scheduled uploads are associated with growth, in subscribers and higher rates of engagement.
- Content that is optimized with keywords tends to achieve rankings, in search results and suggested video recommendations.

Table 3.13

Correlation Between Key Metrics

Metric 1	Metric 2	Correlation Coefficient
CTR	Watch Time	0.75
Upload Frequency	Subscriber Growth	0.68
SEO Optimization	Search Rankings	0.70

Illustrative Quotations

In order to confirm the results excerpts, from interviews with content creators were used here. These excerpts offer background information and reinforcement for the success factors that were pinpointed.

Quotation 1: "I've seen a rise in viewership when I put in effort to craft my thumbnails. Vibrant colors and clear text appear to have an impact"

Quotation 2: " Interacting with my audience through comments has been instrumental, in fostering a community. They value the engagement. Are more inclined to share my videos."

Quotation 3: "Consistently sharing content has really helped me grow my channel. My followers know when to expect videos, which keeps them engaged."

Quotation 4: "I've improved the titles and descriptions of my videos with keywords making it easier for people to find them in search results. Its been a game changer."

By analyzing data, from YouTube Studio Analytics Reports and combining it with insights gathered from interviews this research offers an understanding of the success factors that contribute to the success of small and medium sized content creators, on YouTube. These discoveries guided the creation of the conceptual framework and the actionable recommendations to assist creators in enhancing their strategies and effectively navigating the YouTube Recommendation System.

CONCLUSION

This research aimed to delve into the factors that impact the achievements of medium sized content creators (SMCs), on YouTube with a specific focus, on how they perceive and make use of the YouTube Recommendation System (YRS). By using a combination of surveys, interviews and analyses of YouTube Studio data this study has uncovered information and practical recommendations to help boost the presence and development of SMCs on the platform.

Conceptual Framework and Actionable Guidelines

After analyzing the results of literature review, Mixed method study, I created a conceptual framework to showcase the factors that influence the effectiveness of small and medium sized content creators, on YouTube. This framework combines aspects related to content creation, engagement and consistency performance metrics, discovery and visibility channel authority and additional factors contributing to success. The practical advice drawn from this framework offers strategies, for Social Media Creators to improve their content quality and expand their channels reach.

Development and Validation of the Web Application

The conceptual framework and actionable guidelines were used alongside a web tool called TubeGuru to provide guidance to content creators. This tool offers customized suggestions based on the metrics of each channel assisting creators in applying strategies that suit their requirements. The application was tested with a group of SMCs who noted enhancements, in their channel performance following the implementation of tailored recommendations.

Implications for SMCs

The findings of this research have implications, for media creators (SMCs):-

1. Deeper Insight into YRS → The study and the associated online tool offer SMCs an understanding of how the YouTube recommendation system functions helping them better tailor their content strategies to match preferences.

2. Effective Use of Actionable Guidelines → The customized guidelines provide SMCs with steps to enhance aspects of their channel spanning from content development to SEO techniques thereby increasing their likelihood of achieving success, on YouTube.

3. Empowerment Through Education → By offering recommendations and highlighting success factors this research equips SMCs with the knowledge to make informed decisions that can significantly influence the growth and visibility of their channels.

Future Research Directions

While this thesis has made contributions, to understanding and supporting social media creators on YouTube there are some areas for future exploration;

1. **Long Term Studies** → Conducting studies over a period to evaluate the lasting impact of the recommendations on the success of social media creators.
2. **Increased Sample Size** → Engaging an more diverse range of content creators to confirm and enhance the framework and recommendations.
3. **Algorithmic Examination** → Delving into the elements and modifications within the YouTube Recommendation System to offer strategies, for content creators.

In summary this study offers a structure and useful resources to assist small and medium sized content creators, on YouTube in achieving growth and success. By combining quantitative and qualitative research results establishing guidelines and designing a personalized web tool, this research provides valuable support for SMCs, in understanding and utilizing the YouTube Recommendation System. The insights and tools shared in this study not enrich knowledge but also offer practical advantages to content creators empowering them to excel in the ever evolving digital realm.

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