

Shaheer Bin Rizwan

**INVESTIGATING ATTENTION SPAN DYNAMICS
IN SHORT-FORM SOCIAL MEDIA CONTENT**
A QUANTITATIVE STUDY

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ABSTRACT

Author : Shaheer Bin Rizwan

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The attention economy has revolutionized the social media landscape. It has reshaped platforms by promoting short, fast-paced videos, algorithm-driven feeds, constant notifications, and endless scrolling to keep users engaged for as long as possible. This shift has also altered users' patterns of content interaction and information consumption. The content engagement specifically deals with the attention spans of users. The proliferation of short-form video content on multiple social media platforms (Instagram reels, YouTube shorts and TikTok videos etc.) has generated a cognitive load on audiences, influencing their usage patterns. The current study aims to investigate the effect of short-format videos on social media on the attention span of young users (20-30 years old).

The study is supported by cognitive load theory, which defines attention as a memory stored in active memory, and resource allocation increases the load on memory. The short-format videos are loaded with intrinsic, extraneous, and germane load that significantly impacts the attention span of users.

The study adopted a quantitative research methodology. Surveys are conducted on $n = 164$ social media users of age 20-30 years. The statistical data analysis used descriptive analysis along with ANOVA and t-test analysis for the collected data on users' engagement patterns and attention span. The Chi-square value of 26.611 and p-values > 0.001 for attention span score, time spent watching short-form videos indicate a short attention span and negative attention spans. However, a negative B value for regression analysis also indicates that there is no preference for fast paced videos amongst short format video viewers. Research identified significant effects of short format videos on users' ability to perceive attention.

The study also sets platform for researchers to work on issues of time fallacy among users. Moreover, the study can also be conducted for age groups of less than 20 years and identify the patterns amongst Generation Z and Generation Alpha.

Keywords: Short format videos, engagement patterns, attention span, cognitive load, human-computer interaction, social media

The originality of this thesis has been verified using the Turnitin Originality Check service.

USE OF AI IN THESIS

I have used AI tools in my thesis. The AI tools used in my thesis and their purposes are described below:

Names and versions of AI tools: Grammarly, GPT-4-turbo and GPT-5.

Purpose of using AI tools: To check and correct grammar errors, enhance sentence structures for clarity and coherence, and improve academic tone.

Sections where AI tools were used: Throughout the thesis.

I acknowledge that I am responsible for the entire content of my thesis, including the parts generated by AI (Artificial Intelligence).

PREFACE

“We are not only what we read, we are how we read.” – **Maryanne Wolf**

This thesis is close to my heart because it originates from my own struggle with attention span in this hyper-digital age. I have often found myself scrolling through the endless stream of fast-paced and short format content on social media platforms, questioning how it affects not only my ability to concentrate but also the way we collectively absorb and process information. After realizing that this domain has not been widely explored, I was motivated to study it in depth, hoping to contribute to a better understanding of how our minds are being shaped by short-format content online.

I would like to express my gratitude and respect to my parents, whose support and encouragement have been at the core of my journey. This work is also dedicated to my voyage from Pakistan to Finland, where I came to pursue my master’s degree. By living independently, meeting people from various cultures and having the opportunity to travel to different countries has broadening my perspective and helping me grow as both a researcher and an individual.

A special gratitude goes to my supervisor Professor Thomas Olsson whose guidance made it possible for me to complete this thesis.

I am thankful to Tampere University for providing me with the opportunity to pursue this academic journey, and to all the people I have met along the way who inspired and taught me something. This thesis is not just academic work but also a reflection of my personal journey of learning and gratitude.

Tampere, 31.08.2025

Shaheer Bin Rizwan

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INTRODUCTION

1.1 Evolution of Social Media

The media has evolved with the evolution of the internet and the web. The internet has changed communication patterns. The developing phase of Web 1.0, 2.0, 3.0, and Web 4.0 has revolutionized the media landscape from a read-only system to a multiplex system of read, write, execution, and concurrency powered with an intelligent interaction system. Social networks have developed that have connected the world in a manner popularly named globalization (Alves de Castro et al., 2021). The media landscape has evolved in terms of features, reach, users, access, and availability of information. Technology has exceeded its threshold and posited problems that evolved with the expansion of technology.

The relation between information consumption patterns and developed media technology is critical to media literacy. Information consumption is the frequency of using media applications as a source of information. Digital media consumption affects the audience's ability to look critically into the information. Hence, media consumption is a collection of frequency of use as well as the method and manner through which information is being conveyed. In the cultivating media environment, social scientists' research tends to be interesting in how cognition and attention work for them to evaluate the credibility of examples (Asimovic & Scheerder, 2022). Social networking websites are based on the idea of personal structured networks and profiles, through a system that allows people to interact and socialize through means of developing, sharing, and discussing content like videos, pictures, and audio. Social media sites offer a platform where users use web services to generate a stream of connections that work within that system (McIntyre, 2014).

1.2. Importance of Attention in Digital and Social Media Environments

Social media has become a staple for communication and information access. To confirm information retention, it becomes significant to evaluate attention to content on social media. On social media, users can select information that suits their interests. The interests

are hence captured and augmented by social media controllers to maintain attention. Selective exposure and selective attention are broadly accepted concepts on attention patterns on social media. Researchers use free recall as a measure of attention. The recall of information consumed from social media is measured through the recall of information (Vraga et al., 2019). Attention is significant to evaluate to identify the psychological, advertorial, and marketing impact of social media content on users. Attention is a role player in capturing consumer attention in endorsements and advertisements (Daugherty & Hoffman, 2014).

1.2.1. Defining Attention in social media

The ability of any object to converge the focus of an individual for a long time is an easy definition of attention. Attention has been studied in various formats on varying levels of intellect and mediums. A task that takes possession of the mind in focus, concentration, and consciousness. Attention is the psychological process of reinforcing the focus on a task by attending to one stimulus with mindfulness performing the task accurately and precisely is a task-focused definition of attention. The process of directing attention and sustaining attention, however, are two distinct scenarios. Attention is also selective. The process of selecting the objects or stimuli of attention to enhance cognition is process-oriented attention. When multiple stimuli are available at exposure, the cognition process surcharges attention for incisiveness. Attention is an important factor in human cognition in cases of resource reservation, discord in judgment, bottleneck effects, binding problems, subjective noise, and limited working memory capacity (Stevens, 1951). Attention works along with working memory, object saliency, stimulus receptiveness, and selective focus. This makes attention an intersection of perception and cognition. The pachinko device is also a metaphorical model used to define attention. The model uses pins and balls to expand the process of attention. The arrangement of pins is the behavioral trajectory and balls represent the stimulus. Pins act as filters for selective attention and vary for high-flying and low-flying balls. The model states that attention depends on the selection of stimulus is inferred by the route being followed to process the information (Krauzlis et al., 2023).

Social media demands attention for activity across online space. Attention is a social media resource capital. Attention is attained using a mixture of tools specific to online and offline media. Attention in social media corresponds to the ambit with which users receive any information on social media platforms. Attention is the bridge between the network

properties, communication process, and media capital, online and offline tools that combine to generate impact (Guo & Saxton, 2020). Social media networking and its relation with cognition and attention remain in debate. Social media has a significant impact on attention dysregulation. The impulsive use of social media generates insensitive attitudes toward the context due to mood adjustment and recurrence hence resulting in lacking conceptual cognition and generating a lack of attention (Arness & Ollis, 2023). Social Networking Sites (SNS) usage to relieve boredom is the most observed behavior. The specific usage potentially is a source of distraction and lacking attention for users. The current study attempts to understand the dynamic of the attention cycle posited through the use of social media networking (Hussain & Griffiths, 2021).

1.3. Problem Statement

The short-form video content has rapidly proliferated in the media landscape. The engaging content grasps users' attention. The scrolling feature along with short-duration videos has affected the attention spans of users as users tend to scroll on videos while using social networking sites. YouTube shorts, Instagram reels, TikTok videos, and similar formats are familiar among the young generation (Rugrien & Funk, 2022). Social media usage concerning short-form content impacts youth well-being. The manner of use of SNS defines the level of influence it has on the young generation. Passive use of social media has fewer positive effects on the subjective health of users. The social media analysis of short-form content has been researched to cause attention deficit in users. The addiction to social media creates an addiction-like situation. The generated urge to go online and scroll however involves a lack of attention by the user. The new affordances on social media are difficult to resist and cost self-control and attention deficits (Boer et al., 2020). This study intends to investigate the social media landscape under the pretext of short-form content being generated and distributed on platforms YouTube, Instagram, TikTok, and Snapchat in relevance to identifying the impact on user attention. The expansion of social media and its emerging formats have raised concerns about the sustained focus and attention of users. The study will investigate the dynamics of attention span that are affected by short-form video content consumption.

1.4. Research Objective and Questions

The goal of the current study is to explore and understand how short-form content affects the attention span of young users.

The research question (RQ) about mentioned objective is:

RQ: What is the impact of short-form content on the attention span of young users?

1.5. Research Approach and Methodology

The study aims to identify the impact of short-form content on the attention span of users aged 20-30 years. The goal is to identify the type of content that enhances user engagement on social media and factors that influence attention dynamics in digital media consumption. The study derives the themes of analysis from an extensive literature review and a theoretical approach from cognitive load theory. The research uses a deductive approach to study the questions addressed. The investigation drives the hypothesis from theoretical implications and quantitatively analyzes the data. The study uses the quantitative approach to test the hypothesis. The data is collected through online surveys based on the core concepts of reduced cognitive process, sustained attention, and preference for past-paced content. The empirical work analyses results using statistical data analysis methods and findings are interpreted according to themes identified through literature review.

1.6. Structure of Thesis

The thesis will follow the following structure to explicitly explore the effect short-form content has on the attention span of young users.

1. Introduction and Background: The chapter is focused on introducing the concept of attention and UGC (User Generated Content) on social media.
2. Literature Review, dives in-depth review of literature on social media and attention span studies, identifying attention metrics and engagement patterns. The review will also identify knowledge and research gaps in the field of study.
3. Theoretical Framework, defining the theoretical approach of cognitive theory and developing a hypothesis for testing.
4. Methodology and Data Collection, a review of the quantitative approach to test the hypothesis and generate a survey for data collection.

5. Data Analysis and Results: This section will accumulate results obtained from statistical data analysis. The results will be interpreted and implications will be identified.
6. Conclusion: This section concludes the discussion relating the results interpreted with the existing literature. The section will also discuss limitations and future recommendations for the research.

LITERATURE REVIEW

2.1. Social Media

Social media, an annotation given to media environments over the web and the internet, is a platform that connects people and communities irrespective of physical and geographical boundaries. Social media has evolved from a platform for online chatting to a main source of connectivity, marketing, advertisement, entertainment, and education. All social media is designed to promote socialization among its users. Social media has expanded applications from socializing, dating, and brand interactions, to job seeking and business activities. Social networking sites, are online platforms that enable users to generate portfolios and develop a shared connection with other users (Aichner et al., 2021; Boyd & Ellison, 2007).

Smart Insights reports that 62.3% of the world's population uses social media daily with the most used platform being Facebook and the least used being Pinterest. The users here include millennials, Gen Z, and Gen X (Chaffey, 2024). Social Media echo chambers gauge the spread of information in the audience. Social media has access to an unprecedented amount of information and hence shapes the flow of information. In less than two decades, social media has altered communication and interaction patterns. Communication which took a century to develop from printing press to television is now a sub-theme of social media. Research on social media platforms term it as a sorter of echo chambers and “filter bubbles.” Social Media is a moderator and mediator between networking sites and network well-being (Kross et al., 2021; Verduyn et al., 2020).

Social media (SM) linguistics have been analyzed by quantitative and qualitative methods on the merits of self-researching, time and space differences, in a global context. SM linguistics identifies the aspects of linguistics impacted by education, discipline, setting, and purposes of use as well (Page et al., 2022).

Social media also fosters relationships between the web-based site. Direct, indirect, or mediated communication is appreciated. Social media is used and hence has a vast audience with varying patterns of content watching. It is the hub of generating and communicating content of various forms and types, which requires detailed research. The platforms of Twitter, YouTube, LinkedIn, Instagram, Facebook, Reddit, and Pinterest, a few to mention, have a niche audience with a limit of characteristic content. The engagement

pattern also varies across various platforms (Li & Xie, 2020). In this decade, social media has been the center of research struggle globally. The multifaceted complexity allows explorers to work on it to understand its core complexities. The present study here reviews the literature to identify the attention in consumption patterns across various content being shared on SM.

2.2 Historical Development of Social Media Platforms

Social media is a web of networks for interaction that lets users publish content and interact with each other using the internet. The historical development of social media is usually linked to the end of the twentieth century however; its roots evolve from way back. The era of Phreaking started in the 1950s when people started to experiment with telecommunication systems and saw the development of blue boxes, a device that allowed free calls and access to networks behind. The Bulletin Board systems developed in the 1970s, allowed user login uploading and downloading services and were used for community and social welfare-based discussions and access to online games. The BBS (Bulletin Board System) paved the way for the social media networking that is in use today (Cangialosi, 1989). Commercial online services gave users paid access to bulletin boards, new, chat rooms, and email services. These services continued to function till the World Wide Web was developed in the 1990s. The World Wide Web gave public the legitimate access to the internet and hence became a part of all home computer networks. This changed the communication systems altogether. The Internet Relay Chats (IRCs) were developed, through which masses communicate with each other using the Internet. The IRCs gave rise to the subjects of hashtags and at-signs. The IRC gave birth to global networking and micro-blogging, an important feature of social media today (Reid, 1991).

The social era of communication began with the introduction of peer-to-peer (P2P) networks that can be attributed to Napster. The P2P network lets users access music and download it. Many similar networking sites came to the social networking scenario and formed the basis of social media sharing in literal means. SixDegrees.com was another social networking site, developed in 1997, that allowed users to create profiles and accounts and generate a social network among their friends and interact. The launch of Friendster further promoted the notion of online social networking. 2003 witnessed the launch of a serious social networking platform like LinkedIn connecting professionals and business communities. However, the idea of social networking was boosted with the launch of

Facebook in 2004. (Skeels & Grudin, 2009). Blogging has come to the social media scene since 1994. It is an account or record of events and happenings attributed to texts, images, videos, and other online artifacts. The web blogging phenomenon gave rise to the formation of networking sites like Twitter which allowed users to post small blogs called tweets. Tweets were also titled as the SMS (Short Message Service) of the internet. The technological enhancements gave the public hand-held devices, mobile phones, and smartphones that integrated social media applications. Social media from the 1950s to 2000s developed to be a platform of accessibility, speed, interactivity, longevity, and reach (Taprial & Kanwar, 2012).

Wikis were websites through which users could share content in a combined form without losing the information accounting for different versions. Video and audio content-sharing niche websites developed with the formation of YouTube, Flickr, Dopplr, etc. Through these websites, users shared videos and images and were able to discuss them with the online community. The primary features of these content-sharing social platforms were and are to create, share, evaluate, socialize, and experience (Lietsala & Sirkkunen, 2008). Flickr was attained by Yahoo in 2005. Tumblr was added to the networking space in 2007 as a blogging website. Instagram was launched as a photo- and video-sharing platform in 2010, followed by Snapchat in 2011, and musical.ly in 2014 (a lip-synching platform), Discord (a free messaging and call service), TikTok (a short format video-sharing platform), and Threads, an Instagram subsidiary (Goff, 2013).

2.3. The Ascent in User-Generated Content (UGC)

The internet has developed from WEB 1.0, a read-only service, to Web 4.0, a multiplex service that provides read, write, rendering, and aptness. The transition has served as the basis for generating a participatory environment where content producers and consumers are not limited to a particular segment of society. The user-generated content has proliferated social media platforms and has given rise to the prosumers where the public is the producer as well as consumer of the products on social media. The two separate actors of networked society have merged into one, prosumer. It is a common notion that social media platforms YouTube, Twitter, Instagram, and many others facilitate users to network with each other, user-generated content has served this networking (Luca, 2015). Prosumption is a term that evolved with social media, depicting the transformation of the user into a producer. The significance of content has increased. The content is the driving factor for which people use social media more than connectivity and interaction. The

user-generated content emerges from blogging that is a record of events or an online diary. The blogs incorporated an authorial voice, links, comments, and subscriptions. Blogosphere equips users to generate content publish it and make it available for other users. The contribution does not demand professional skills but access to online facilities. Podcasting is another booster in the genre of user-generated content. These are audio and video files posted through online platforms. Podcasts are also a form of diaries or directories posted in audio-visual format (Lietsala & Sirkkunen, 2008).

With the rise of video-sharing social networking websites, the sharing of short-form and portable content increased on social media. YouTube started experimenting with short videos after being acquired by Google. While the development of mobile technology also supported the production and publication of short-form videos. The tools of video production have become cost-effective. Amateurs have easy access to equipment. Self-production became a widely accepted and promoted phenomenon. Music was also incorporated into the features of social media sites. The videos with in-app musical overlays became popular. The YouTube content was contributed with gaming videos, tutorials, community videos, comedy, parodies, and review videos. The user-generated content triggered in the interaction between users and creators. It endorsed content diversity and visibility (Simon, 2016). TikTok is accredited as a materialization of user-generated content. It shaped the market of content sharing shifting the autonomy from limited video producers to users who became the owners of content being produced and shared. The social media bedecked a stage for self-expression based on self-motivation (Omar & Dequan, 2020). The historical evolution of social media has also cultivated the content type, content making, content distribution, and content consumption. From publishing written text on blogging sites to publishing video content on social media has altered the perception of media content by users.

2.4. Short form Video Content and Social Media

Short forms of video content have been identified in various forms of entertainment, peer reviews, education, information sharing, and marketing as well. The content presented in short videos caters to user gratifications of intellect, entertainment, escape, etc. It also favors user-generated content and hence generates a shared communicative platform (Apasrawirote et al., 2022). Short-format videos allow users to create and capture memorable moments with easy-to-use editing and recording tools. The format has however

escalated and has concerned researchers about its excessive use. The short format videos have attributes of low-cost production, fragmentation of communication, fuzzy boundaries between sender and receiver, irrespective of time and space, and multimodal information retrieval. The attributes challenge the journalistic values and norms of communication. Studies suggest that social media promotes short-form videos. Collins (2023) mentions that despite of no defined rule for short and long videos, it is widely understood notion that a long video is more than two minutes, however, short videos are the ones with a time limit of less than two minutes. The Vine application is one of the pioneer applications that brought in the concept of short-form video content in 2013 changing the process of producing and editing videos, followed by Snapchat, TikTok, Instagram, Facebook, and YouTube. SFVs (short-form videos) convey messages and information through a few seconds or a minute video, enhancing user engagement through likes, shares, and comments. The briefer the video, the more attention it holds. Short-form video marketing potentially attracts users and retains their attention. (Stepanova, 2024).

Short-format videos have a significant position in the fields of marketing and sales. They are widely used in user-generated content media for influencer marketing and advertisements. An empirical analysis of data from Douyin indicated greater interest in people in social media short ad videos. The comments on videos are the attributes that have an encouraging effect on buyers. SFVs have taken over digital markets due to their appealing features. The short videos provide an easy, less time-consuming shopping experience for the users. The format offers information, entertainment, credibility, social interaction, as well as incentives that increase the purchase intentions of users. Hence, it is an effective platform for marketing and advertisements (Ge et al., 2021; Van Tuan et al., 2023; Wang, 2021). The short-format story videos also have effects on body image and body consciousness in users. The appearance ideals for short-form videos in social media promote body objectification and dissatisfaction with one's appearance (Gurtala & Fardouly, 2023). The user intentions are driving factors of social media content popularity. The user motives that define the social media usage behavior of individuals are entertainment, integration and social interactions, personal identity, compensation, empowerment, and tediousness. The short video-sharing platforms TikTok and Instagram are the most used and engaged applications than others (Glaser, 2024). Short-form videos also serve as a tool to mediate human-machine interaction. The short-format videos attributed to social media generate a sense of user interaction by enhancing immersion, presence, and attention for users. Social anxiety and social isolation are driving forces behind the skyrocketing fame of short-format videos on

social media. Users get attached to social networking sites that run short format videos to satisfy interpersonal attachment, content personalization, and entertainment needs. These factors lead to addiction to the videos and escalate their usage among the public (Wang, 2020; Zhang et al., 2019). Research on TikTok, a pioneering platform in short-format videos, indicates that the short-format videos distort time management in the usage of social media, and overspent time and attention are direct results among college students (Y. Yang et al., 2024). Research identifies that short-form videos and reels affect the listening and reading skills of users specifically Gen Z. The content and format are aimed at the attention of users. However, this engagement is decorated by immediate satisfaction and active involvement. The frequent use develops a liking for short immediate, less attention-demanding content, and the reading and learning capabilities hamper (Vidani, 2024).

2.4.1. YouTube Shorts

YouTube shorts is a sub-section of the video-sharing Platform YouTube, started in 2021, focuses on vertical videos usually of 60 seconds or less than 60 seconds in duration. The concept of adaptation from TikTok, short features with easy-to-use editing tools on the platform itself. The content of YouTube shorts enhances engagement and has a larger viewership. YouTube shorts have snatched viewership from long-form videos and hence have compelled the creators to adapt their content to the video format (Rajendran et al., 2024). Studies suggest that shorts production has increased excessively since 2021. The core content of shorts is entertainment, politics, social activism, pet videos. Education-relevant videos are less in short supply. Shorts are also more prone to attention and engagement as compared to longer videos. Shorts attract 110 times more views as compared to other formats of videos (Violot et al., 2024).

2.4.2. TikTok

TikTok is a short-format video service platform, one of the popular social media platforms. Launched in 2017, the application supports the videos of 60sec duration. The platform has sought its success over the years. The users' motivations are the primary factors enhancing the use of TikTok. The research has identified that the factors of novelty, habit, pressure releasing, recording and sharing, and curiosity are the factorial motives that have prompted the use of TikTok (DONG & Xie, 2022). The analysis of short-form video content on TikTok leads to the results that users prefer short videos for enjoyment and entertainment under

the fair use policy of the platform. (Shutsko, 2020). The short format videos on TikTok, affect internal attention concentration in users and result in time distortion for maintaining attention. A PLS test on adolescents found that short videos affect their cognitive habits and behaviors and children develop interest due to the short period, creating time allocation distortion (Qin et al., 2022).

2.4.3. Instagram Reels

Instagram is another video-sharing platform that introduced reels as a short-form video-sharing format in 2021. Instagram is a growing platform in social media marketing. Over 50% of businesses use Instagram as a platform for advertisement and marketing. An inquiry into the engagement patterns of reels identified that reels dominate in engagement from other video formats. They have more influence and are a preferred marketing pattern for business owners. (Liang & Wolfe, 2022). A case study of Instagram reels as a model of social media transformation undertakes a uses and gratification model to identify the usage pattern. The application has features of advanced data processing to attract users. It is an ever-evolving business model that gives additional value to create and capture via editing, camera settings, and text-altering attributes (Imran, 2022).

2.5. Attention Span Dynamic

The visual attention span hypothesis is a concept that explores the dimension of information retention processing abilities of individuals. A concept identified to work on dyslexia, it has wider implications in visual media content viewing and memory processing. Visual attention is catered to orthography skills in visual patterns that are attributed to multi-memory units working with the visual windows. Visual attention is different from perceptual span which focuses on individuals identified in the fixated field of view. The Visual Attention Span (VAS) concerning reading skills identified the factors of task awareness and phonological ability for generating an attention span. The VAS dynamic is concurrent with the perceptual span and Visual Span (VS). VS centers on sensory bottom-up constraints of content. The scattered attention resources in an experiment measure the VAS in objects. The span is also dependent on the threshold of selection, number of letters, and degrees of angle deviated. This also gives rise to the concept of visual apprehension span that is recognizable no of objects in a single fixation. (Bosse & Valdois, 2009; Frey & Bosse, 2018).

Bosse et al. (2007) defines visual attention span as the ability to identify visual objects simultaneously in one fixation. The technology is catching up speed and changes are being accommodated at a faster pace. The mobile culture of society precisely termed digital distraction has raised concerns about reducing attention spans for content viewing. Attention span cognitively prepares the mind to engage in person-to-person conversation. The research on a smartphone-using segment of society suggests that 44% of people find it hard to focus their attention on a task. Human attention is diminishing and, on the way, to diminishing further. With 12 sec in 2000 to 8 seconds in 2013 and 9 seconds for the period we all live in. Studies show that decreasing attention spans do not vary the memory retention power. Practically a shared and skilled intake of information and knowledge requires a long spend focus on the subject at hand (Subramanian, 2018).

Social media videos are linked to attention spans due to their vivid nature. The attention span spent on any social media content demands no conclusive periods. Visual processing skills are based on the visual attention spans of individuals. The attention span works in parallel and series as well for processing information (Lessig, 2000; van den Boer & de Jong, 2018). The process of attention has always been an important attribute of the learning process. The deficits develop when meditating. To measure the learning of visual attention per minute counts, time allocated aims, and mastery in behavioral efficiency (Binder et al., 1990).

To enhance human attention span, gaze points are to be identified over time to identify the visual plot. The gaze point and retention of points are definers for visual attention. The increased practice for gaze point retention can lead to a more focused approach and a long-term visual attention span as given by Susan et al. (2019). The research on VAS in the video game genre points out that in video simulations the visual attention is distributed at center and peripheral vision. A better visual span results in efficient coordination between brain and body and hence can enhance the content consumption experience (Argilés et al., 2023). Short-form videos on social networking sites fragment the content and result in interactive and engaging information deliverance that results in addiction. A study on short-form video content on user attention is determined through experimentation on university students. The study identified that addicted users have more fixation counts which means a higher level of difficulty in retaining attention. An addiction to short-format videos results in attention deficit in users. Hence the users take a longer time to respond to the stimulus. Conclusively, short-

format video addiction results in a detrimental reduction in the visual attention span of users (Chen et al., 2023).

The study on the correlation between short video content and sustained attention patterns worked on attributes that make it more attractive and less attention-retaining. The experiment on students explored videos with seconds length to minutes length. The result indicated a negative relation between the attention span and the length of the video. The short format videos cause problems of addiction resulting in decreased attention span with a desire to watch more short videos with less to no attention. Short-form video addiction is a complex issue that reduces the information retention abilities of users. Applications like TikTok, Instagram as well and YouTube Shorts are serving to increase the phenomenon. The addiction generates physiological psychological distractions that diminish the learning abilities and a sense of loneliness from the physical world as the media world seems to be more social. (Glaser, 2024; Kuo, 2024). The quantitative evaluation of visual attention dynamic in mobile users analyzed the video, location, sensor data, device logs, and simultaneous activities and identified that a high sustained attention span was of a maximum of 7 seconds, however in typical situations attention shifts in 2 seconds. Visual attention is also identified in the context as the attention span varies based on mobile applications being used. Visual attention also varies with the multitasking of users in the background. Hence a 7s attention span is favored in short-form videos collectively affected by social context and use of mobile applications (Bâce et al., 2020).

2.5.1. Driving Factors for Short-Term Video Content

The short format videos and reels have a significant impact on the attention span of users. The use of social media platforms that offer short video formats such as TikTok or Instagram causes a decline in attention span. It functions the brain to look for immediate navigable content and continuous exposure to such content makes it difficult to stay focused for longer time durations (K, 2023). Qin et al. (2022) argues that uncontrolled use of smartphones among youth increases distraction leading to less focus and multi-tasking capabilities of users. The analysis of students on the usage of short-span videos explores themes of diminishing focus, reduced productivity and creativity, affecting cognitive activities of the brain, causing addiction to videos, increased time management concerns, and time distortion. All these are the impacts of short-length videos found excessively on social networking sites. However, the research suggests that the situation can be improved if the

user can identify the triggers, social interaction, engage in other activities, use time blocks for restricted activities, develop reading practices, avoid multi-tasking, and focus on one task at a time (Asif & Kazi, 2024).

Table 1. Driving Factors for Short form video content

Driving Factors	Conceptual Definition
Video Length	Video length is the time duration of video content. Video length negatively impacts user engagement (Cheng et al., 2013; Zhang et al., 2022).
Title length	Title length is the number of words and dialogic strategies used to develop the title. Title length has a positive effect on user engagement (Zhang et al., 2022).
Theme topic	The theme topic is the central idea of the content of the video. The common themes of public interest are a significant factor of engagement (Gao et al., 2021; Zhang et al., 2022).
Music Genre	The music genre is the music used in the background of the video posted. Music enhances emotions and is a driving factor for viewership and engagement (Zhang et al., 2022; Zhu et al., 2024).
Endless scroll	Scrolling is an act of continually surfing through digital content with no distinct intention or motive. Scrolling is a habit that exhibits a lack of focus, lessens a productive attitude, and time passes activity. It is us of social media passively (Rhymes, 2023).
Fear of missing out	Fear of missing out (FOMO) is a behavior developed from the attitude that the person can miss out the important information, trends, or experiences. FOMO is one of the

	many gratifications that compels users to access short-form video content (Apriyanti & Wijayani, 2024).
Time Fallacy	Time fallacy is an inaccurate assessment of time being spent on social media. Users assess short-form videos as a reduced time spent and as a result view SFV passively for longer durations (Asif & Kazi, 2024).

2.6. Digital Media Consumption Patterns

Digital media consumption patterns are the ways and contexts in which users are compelled to use digital media. However, the consumption pattern varies among different demographics. People of different age groups have distinct patterns of media usage. The statistical evidence by Cone Communications, Global Web Index, and Trendera suggests that a total of 2.5 quintillion bytes of data is produced every day. Digitalization has varied impacts on the usage of media by people of different age groups. The age group that comes under the bracket of more than 25 years is the one with longer attention spans and tends to work hard and derive information from firsthand experience. However, people in age groups between 20 to 25 years are the fast information society who rely on internet for any sort of help and have a very short attention span. They tend to live life online (Serbanescu, 2022).

The users are dependent on digital media for making important life decisions. The second highest population proportion of people above 25 years of age and their digital behavior patterns arise from factors of need recognition, gaining information, looking for alternatives, and making purchases. The before, during, and after travel behavior of millennials is also based on digital media experiences. The motivations to come for digital media platforms and short format-making sites such as TikTok arise from continued motivation, video creation, stickiness, and content-sharing behaviors (Cuesta-Valiño et al., 2022; Wachyuni et al., 2022).

Digital media has widely influenced the lives of people in the 21st century. The media consumption methods have changed for media consumers. According to a Russian study, social media has changed the media needs of users. Digital media culture is specifically virtual and socialization and self-actualization concerned needs. The factors for social media

consumption are structural as well as psychological. The structural approach follows the traditional scheduled media influence and reviews based on rating. The psychological factors are relevant to individual needs and preferences. The primary motives of socialization and self-actualization emerge from the notion of being a social creator. Digital media is in itself a socially mediated environment (Dunas & Vartanov, 2020). The consumption pattern for digitized streaming platforms through questionnaires identifies that youth are prone to the platform and its content. The digital media consumption pattern depends on engagement metrics for youth. Youth engage in social media for blogging, political activism, and signing petitions. The youth are the front-end adopters as well as intense users of digital media. Slacktivism is another consumption mechanism for digitalized media. Online activism tends to decrease offline socialization in youth (Dunas & Vartanov, 2020; Omukić et al., 2022). Rizwan and Qamar (2023) research serves as a significant insight into the exposure that Instagram provides. The frequent Instagram exposure vary the purchase patterns. The patterns variation is a direct product of behavioral changes that correlates with the attention span dynamics. The greater the engagement of users in content, the attention is also captured early influencing their purchase decision within the fixed time span, resulting in complex parasocial relationships.

2.7. Engagement Metrics in Short Form Video Content Platforms

Digital consumer engagement is the communication between a user and a digital environment curated by user investment in content, and immediate reactions through clicks, likes, comments, and shares. These are the basic engagement metrics for any social media content. The user views, likes, dislikes, or comments on the content shared as well as recreates it to foster its digital engagement. Short-form videos are far far-reaching model of content sharing that explores features of user engagement. An extensive study on social networking platforms that support short-format video content identified four major factors defining user engagement. The uses and gratification analysis determined performance expectancy, entertainment, tie strength, and sales approach as driving engagement metrics for users (Munaro et al., 2021; Xiao et al., 2023). Generalized behaviors that are considered engagement behaviors include content creation, contribution, and consumption in a social network. A study to recognize the effect of the role of social media content and platform on user engagement active and passive, and effect on rationale analyzed a data set of one million social media posts. The results indicated that user engagement is motivated by the context of the content being shown. The engagement is interactive and

gives rise to behaviors with differing levels of intensity. However, the measures of engagement are likes, comments, shares, and interaction duration of the content. Rational content generates more engagement patterns while emotional lacks a liking behavior and transactional content engagement varies with the platform used as it fosters more likes but negative comments as well. (Shahbaznezhad et al., 2021).

Another research on TikTok engagement patterns during COVID-19 analyses the engagement through athletes' and fans' relationships and online communications. TikTok had been a tool for fan engagement when athletes used it to share 15-second short videos during lockdown. The videos were considered playful and gained likes, sharing, and recreating as well. The image of figures of interest that are less professional attracts users. These factors also enhanced the marketing through short video content on TikTok. The engagement metrics also classify a video as successful. The metrics that make a video on social media potential success are identified. LIKE is the most essential metric, followed by watch time, information retention, recommendation, sharing, retweeting, and reposting, these are the metrics that work to make a video a social media success (Saket et al., 2023; Su et al., 2020). The study has identified the following engagement metrics.

Table 2. Engagement metrics on social media platforms

Engagement Metrics	Concepts
Views	The number of times a video has been watched.
Likes /Reactions	The number of positive and negative reactions the public has given to a video.
Shares	The number of times a video has been referred to or shared on the same as well as on different media platforms.
Comments	The nature of interaction the audience has made regarding the content.
Clicked through Rate (CTR)	The times when a user has clicked the video link.
Retention rate	The number of viewers who have watched the video for a longer duration or till the end.

Followers rate/Subscriptions.	The number of followers or subscriptions the channel or content creator has gained.
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2.8. Theoretical Framework

The proliferation of social media has multifold into the use of short-form videos for content consumption. The short format videos – usually of less than 60 seconds – are vertical video formats offered by Instagram, Facebook, and YouTube. The public generates content based on their day-to-day activities and posts them in short videos on social media. The public, hence, at the same time has constant exposure to short-form video content. This phenomenon has given rise to concerns related to the attention span of audiences. The lesser length of video impacts the attention and focusing abilities of audiences. The audience seems to be caught in the loop, as quoted by Kohler (Kohler, 2023). The presented theoretical framework implies Cognitive Load Theory to develop a structural framework for analyzing the impact of short-format videos on social media on the audience.

2.8.1. Cognitive Load Theory

Cognition load refers to the load on cognitive abilities and the quantity of memory resources used and allocated to a piece of information. The theory proposes the principle that the human brain has a constrained memory workload and information processing. The theory was developed by John Sweller 1988-89, to define and develop problem-solving procedures for effective learning for students. The concept developed from the idea that students while continuously solving problems focus more on solutions than the learning factors that are inherent in the procedure of problem-solving. The attention is taken away from learning aspects to giving solutions. The experiments conducted by Sweller, Ward, and Tarmizi used work examples in multiple cases along with geometrical diagrams to elaborate relations between different entities. Sweller identified that attention is misdirected and cognitive resources are diverted to activities that are unrelated to the learning process (Chandler & Sweller, 1991). Cognitive Load theory is a relationship describer between active memory and inactive memory. The effects of an activity on an individual are connected to the cognitive load capacity of individuals. In natural information processing individuals either store information, borrow it from others, define limits of problems, and link information to action in a suitable environment. The Mestre and Ross (2011) defines the principles for information processing by dividing cognitive loads as follows:

Borrowing and reorganizing principles: Long-term cognition is the basic functioning cognition for humans. Hence, they require processes to acquire large sets of information. They do this by borrowing or imitating others or taking information reorganizing it and storing it. CLT concerns the processes of schematic information and storing it.

Randomness as Genesis principle: Human cognition identifies information as a problem that requires a solution according to a pre-set schema in cognition. It defines how new knowledge is created using available cognitions.

Narrow Limits of Change Principle: The principle defines that human cognition limits the instruction procedures for any new information, partially working in active memory and partially in long-term memory.

The Environmental Organizing and Linking Principle: The active memory simultaneously processes new information and also extracts information from the external environment to organize and store it into long-term memory and use it when needed for action.

2.8.2. Categories of Load

The cognitive load is categorized based on the type of load, its structure, organization, and processing. Information of different levels possess different load capacities. Information can be heavy, the users may have a variable level of understanding, and the human brain can work up a structural model to reduce the load. Based on the traits of information processing load is characterized by Sweller into three categories: Intrinsic, Extraneous, and Germane load.

1. Intrinsic Load

Intrinsic load is the load associated with the information inherently hence making it difficult to process the information. It is information that is acquired irrelevant to its source. This load is extensive and is also fixed. The intrinsic load cannot be altered by structural processing design. Intrinsic load imposes a high cognitive load on the active memory. Element interactivity is a determiner of load. A high element interactivity comes with a high cognitive load and a low interactive element gives a low cognitive load (Plass et al., 2010).

2. Extraneous Load

The extraneous load is alterable with instruction and processing structure. It is controlled by the user as the elements causing the load effect can be minimized. The instruction design

is an effective tool for reducing the load on active memory capacity (Kirschner, 2002; Plass et al., 2010).

3. Germane Load

Germane load works on processing, developing structures, and allocating schemas to certain load elements. Germane load acquires schemas automates it and specifies the load impact on different schemas. The brain devotes its attention to active memory to load as long as it is manageable. The source of the load is a determiner in this case.

Intrinsic, extraneous, and germane loads are added in together to make up the total load capacity of active memory. The summation load cannot exceed the resources of memory allocated (Plass et al., 2010).

2.9. Framework-Short Form Videos and Cognitive Load Effect

The short form videos have a significant relation with attention spans and attention patterns; attention is related to cognitive memory and load associated with the information processed. Cognitive load theory works to identify the influences of short-form videos on attention span. Attention is allocated to cognitive timers and is recorded in active memory. The more attention resources assigned to memory increases the load on memory.

Intrinsic Load and Short-form content: Social media offers intrinsic load which is simplified by short-form content on media. However, complex issues when generalized limit understanding and critical thinking, and analyzing potential. The users get more adapted to digestible content that is simpler and hence lessens the ability to sustain attention on complex scenarios for a longer time.

Extraneous Load and Short-form Content: The short form video is usually decorated with fast-pacing speech, music, text overlays, and graphics and creates a sensory load. The sensory load acts as an increasing extraneous load and increases the stress of working memory; hence it becomes difficult for users to uphold focus for longer time durations.

Germane Load and Short-form videos: The short format of videos conditions the human brain and cognitive system to process information at a fast pace but lack a sense of understanding and message processing. The schema allocated for the information in long-term memory is affected. The effect created by phony information processing impacts users'

ability to engage in analytical cognitive processing. The memory resources are allocated to the flux of shallow information.

The **attention span** is impacted in multiple ways as:

- The continuous exposure to short-form videos forces users to look for quick informative content. The user's attention spans to engage in long-duration activities such as reading or watching a longer video is lessened due to the absence of immediacy as provided by short-form video.
- The human brain's learning capacity is affected by the load.
- The attention shifts rapidly while viewing short-form videos on social media. This complicates the ability to sustain focus and thinking.

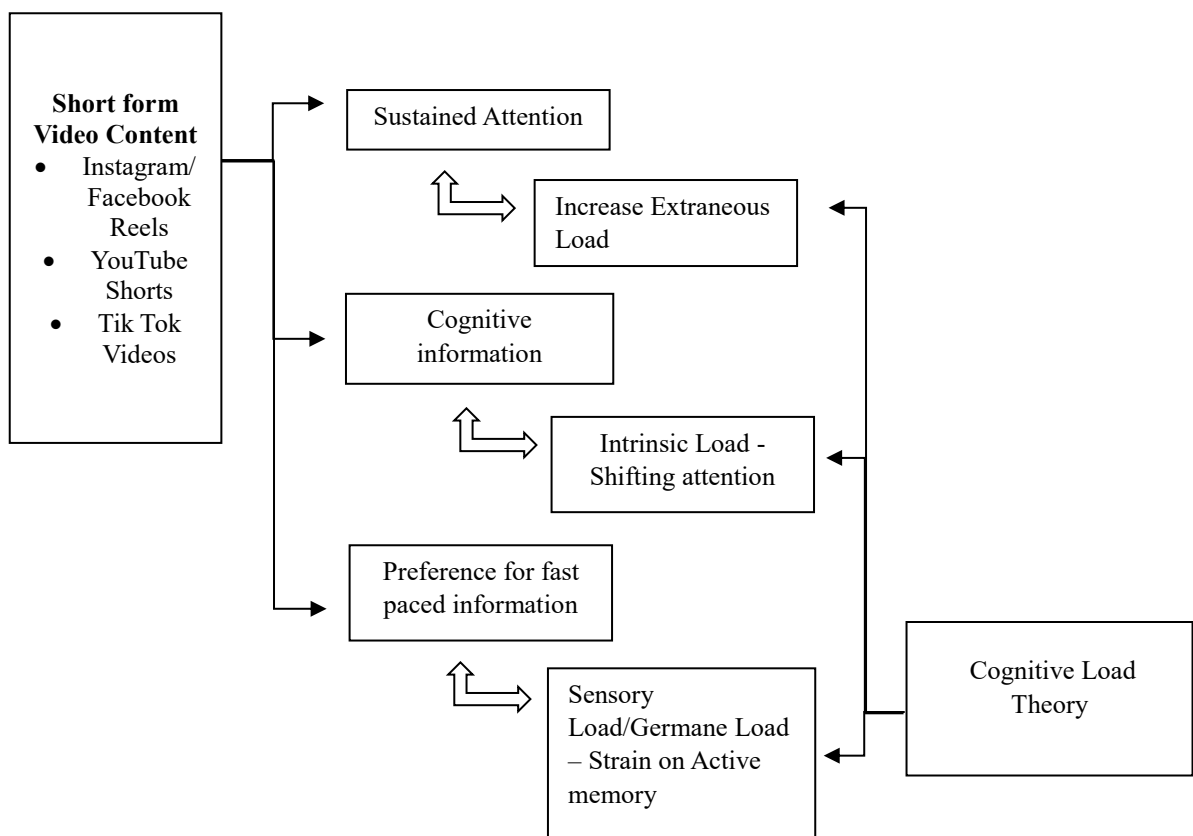


Figure 1. Framework Short form video content and cognitive load

2.10. Hypothesis

The social media transition has favored user-generated content in the media. The content has become the fuel for connectivity. Short-format videos have contributed to the fragmentation of audiences, multimedia information reception without the limitation of time

and space. Though no rule has been defined, research has identified that the shorter the video, the more attention it holds. The visual attention span is linked to perceptual span and content selection threshold. The literature points out that short-format videos and content are attractive but less attention-grabbing. Cognitive load defines pathways through which attention-reinforcing memories are processed. Social media converts the information into an intrinsic format, making it short and limiting the analysis potential of users. The sensory load enhances stress on the working memory and leads to a lack of understanding in users (Collins, 2023; Lietsala & Sirkkunen, 2008; Plass et al., 2010; Stepanova, 2024).

Considering the discussion carried out through the literature, the study has proposed the mentioned hypothesis.

The study proposes the following hypothesis to measure the impact of short format videos on the attention span of users through determiners of sustained attention, cognitive processing, and preferences for type of content:

H1: The short format videos negatively affect the user's perceived ability to sustain attention.

H₀: Short-form videos have no relation to the sustained attention of users.

H2: The users of short-form video content exhibit a preference for fast-paced content consumption

H₀: The users of short-form video content exhibit no preference for fast-paced content consumption.

METHODOLOGY

3.1. Research Methodology

This section explores methods and techniques employed to collect and analyze data. The study aims to measure the impact of short-format user-generated content on the attention span of users. The short format video content has increasingly become popular owing to the social media landscape. The users are the controllers and can use a format as per their needs. The content is made increasingly more engaging to grasp user attention, otherwise, it results in being scrolled down. Consequently, the addiction to social media and increasingly controlled features concerns the attention span of users. The social media affordances have caused apparent attention deficits in users. The presented study intends to investigate the short-form content generated on social media platforms in relation to their impact on user attention.

There are two widely accepted approaches for research. One is qualitative and the other is quantitative. Qualitative approach involves methods of data collection such as interviews, in-depth interviews, field observations, ethnography, and case studies. The data in the qualitative approach is detailed and is used to explore a phenomenon of nature. The quantitative approach is the numerical data collection method involving surveys (mail and online). In a quantitative approach, data collection is standardized. It measures the variables via numbers. The reporting of results makes it easier to analyze the relationship between variables (Wimmer, 2011). The study aims to identify the relationship between social media usage and its impact on attention spans and uses a quantitative approach of data collection and analysis to determine the relationship through hypothesis testing.

3.2. Quantitative Research Approach

A research approach is characterized by the data collection and measurement methods. Quantitative research is a rigorous, deductive, and formal approach of generating information through problem-solving. It concerns the cause-and-effect relationship between

variables that are to be measured. The aim of research using a quantitative approach is a strategized collection of data and analysis. An extensive literature review supports the approach and generates results by testing hypotheses (Ahmad et al., 2019). Quantitative research is a systematic observation of events and objects to inquire into the relationship between the dependent and independent variables (Mohajan, 2020). Data in quantitative research is an empirical measurement of concepts under study. The quantitative research transforms variables into actions under research. The data is produced in numbers representing the concepts. The measurement of data bridges the gap between abstraction and empirical research (Neuman, 2007).

Quantitative research is aimed at generalizing the findings to a targeted population. The results are generated on a large sample size, and the reliability of the research is high. The findings of quantitative research give the perspective of the population over an issue. It can be exploratory to develop insights about an issue. It is also descriptive to identify the properties of an individual, group, or situation. Four types of research approaches are used in the quantitative approach. Experimental research is the study of data based on a hypothesis in a controlled experimental environment. Correlational research is the identification of the relationship between two variables, one influencing the other. Descriptive research investigates the characteristics of a situation through surveys, case studies, and observations. A case study is a detailed analysis of a case (Ghanad, 2023).

Quantitative research is repeatedly used in social media research. A study on identifying the relationship between time spent on watching short videos and with attention of users used quantitative interviews to collect data. The study identified a visible attention deficit in students who spent more hours on social media (Asif & Kazi, 2024). Another study on visual attention in social media employs a quantitative experimental design and generates generalizable results in the operation of social media applications (X. Yang et al., 2024). Social media platforms are engaged in capturing user attention. An online quantitative survey on 730 users searched for features engaging to be employed in devising a successful advertisement formula for social media (Zaitceva, 2018). An investigation into the social media content quality used quantitative assessment of social media, TikTok videos on ADHD and identified the content misleading (Yeung et al., 2022). This research is aimed to measure the influence of short format video viewing on social media on attention span of users. The literature reviews have identified the quantitative research as the suitable measurement technique to generate results that are reliable and generalizable.

3.3. Quantitative Online Survey

The present research on attention span of social media users has adopted quantitative online survey as a method of data collection. A survey is the most commonly used method of data collection in quantitative research. The word 'survey' refers to a collection of data from a group of people included in the sample. The information collected from a sample of individuals is standardized and systematized. They provide basic scientific knowledge used to study the behaviors of animate or inanimate objects (Scheuren, 2004). Surveys are of two types: descriptive and analytical. Descriptive surveys explain a condition or event. The subject of interest is the situation under study. However, analytical surveys tend to explain the reason for an event's occurrence. The survey research studies a research problem in real-life environments. The cost spent on data collection is feasible, and a large amount of data can be collected (Wimmer, 2011).

There are diverse methods of conducting a survey. In-person surveys are conducted in the physical presence of the participant and researcher. Telephone surveys collect data by interviewing over the phone. Mail surveys are also conducted to collect data from a particular group of individuals (Stoop & Harrison, 2012). The study has used online surveys to collect data. The online survey is a data collection method where people respond through a web service connected to the internet. Online surveys are usually distributed via platforms of Google Forms. Online surveys are conducted to access a specific audience that has internet experience. It is relatively easier to reach a wider audience as compared to an in-person survey. The anonymity of the respondent towards the researcher facilitates unbiased, in-depth information. The response rates are higher for the young internet generation (Van Selm & Jankowski, 2006).

The researcher has generated an online survey with multiple sets of questions segmented into sections to measure the variable.

- The first section of research includes a set of demographic questions inquiring about gender, age, occupation, and qualification.
- Section two of the survey includes closed-ended questions aimed at identifying the social media usage of the participants. The questions include information on the use of social media, per-hour usage, platforms of use, content watched, and time spent on short-form videos.

- Section three is a Likert scale assessment on exposure to short-form content viewing on social media platforms.
- Section four is a Likert scale assessment on the type of content viewed in short format.
- Section five contains a Likert scale assessment on sustained attention measures of participants.
- The last section is a Likert scale assessment of preference for the use of social media short-form videos.

The researcher has conducted the online survey through the platform of Google Forms.

3.4. Operationalization of Variables

The variables are operationalized for the research as follows:

3.4.1. Short Format Videos

Short format videos are videos that last up to 60 seconds. They are usually in a vertical format but are optimizable into a square format as well. They are easy to produce, quick to watch, and easier to swipe on to the next (Violot et al., 2024). The study operationalized short format videos as videos made or posted on platforms of TikTok, Instagram, and YouTube in vertical shape with a time span of up to 60 seconds.

3.4.2. Attention

Attention is a cognitive resource that is allocated to tasks based on importance. It facilitates the activation of stimuli and brain networks. It is also a measure of cognitive control (Rothein et al., 2018). The study operationalizes attention as Attention is defined as the ability of individuals to remain engaged and focused on any target for a longer time duration. It is measured through the ability to focus on tasks, attention to detail, focus in long-term time activities, cognitive ability, lack of interest, and multitasking ability of participants.

3.5. Sampling

Sampling is a process and technique of selecting individuals and groups of individuals who are suitable representatives of a section of the population or society. Sampling is done to determine the features of a population using inferential statistics. The observation is made

on the selected sample, and the results are generalized over a larger population it is taken. Sampling is the process of selecting a finite set of participants to identify the characteristics of the whole (Thompson, 2012). A population is a group of research objects, animate or inanimate, from which a sample is extracted. The sample is a subset of the population. Sampling involves two types of procedures: probability and non-probability sampling. Probability sampling is a systematic method of sampling using mathematical techniques, whereas non-probability sampling is not systematic. Probability sampling helps researchers to estimate sample size; non-probability sampling does not. The mass media research often employs non-probability sampling for its ease of access to available participants (Mujere, 2016).

3.5.1. Non-Probability Convenience Sampling

The research procedure has used non-probability convenience sampling. Convenience sampling is the process of selecting participants based on their ease of availability for the study. The accessible participants are recruited for the study. The researcher asks the individuals from the population to participate. Hence, the researcher works on a readily available sample. The sampling technique is common to social sciences research (Golzar et al., 2022).

3.5.2. Sample

The population for the research is the people aged 20-30 years and active users of social media. The sample from the population is selected using a non-probability sampling technique. The sampling technique, hence adopted has resulted in a sample of $n=164$.

3.6. Data Analysis

The research uses statistical analysis techniques for data analysis. Descriptive analysis is used for the interpretation of data to organize and make meaning of it (Lawless et al., 2010). The researcher has used basic descriptive analysis, mean, median, and standard deviation. It assesses the frequency of responses, central distribution points, and dispersion measures of data. The descriptives are calculated on data regarding social media usage and attention span. Frequency distribution is used to categorize the data on video length, platform use, and engagement behaviors.

Cronbach's alpha is used to measure the reliability of the data on a Likert scale and to measure the internal consistency of the data (Tavakol & Dennick, 2011).

For hypothesis testing, the research uses the independent t-test. The test is used to identify the difference between two variable groups (Okunev, 2022). The test is used to compare attention span scores between high and low short-form video consumers.

Anova-analysis of variance is used to compare variables at different levels. The researchers use the test to compare sustained attention across different levels of social media users. Pearson correlation is used to measure the relationship between short-form video consumption and self-reported attention span (St & Wold, 1989).

To determine the preference levels of short format video consumers of fast-paced content chi-squared test is used. Logistic regression is used to determine whether short-form video consumption leads to a preference for fast-paced content.

3.7. Research Ethics

There are ethical concerns associated with any research. Little (2013) has listed ethical considerations for quantitative research in the book "The Oxford Handbook of Quantitative Methods". The study follows the basic research guidelines to ensure ethical standards of research.

1. **Informed consent:** It caters to the voluntary agreement of the subject to participate in the research. The participants were provided sufficient information about the research using a language that is understood by participants to ensure their intentional participation in the research. The participants are informed about the purpose of the research, their right to withdraw from the research at any stage.
2. **Nonmaleficence:** The researcher has taken care to establish a trust-based relationship with participants. The researcher has taken care to cause no harm to the participants involved in the research. The researcher has minimized social and legal harms by ensuring confidentiality. The economic harms are resisted, as no questions are addressed that may cause employment losses. The anonymity and encryption of data is maintained.
3. **Data Integrity:** The integrity of data is maintained. Precautions have been put in place to avoid fraud, unclear commitments, factual misrepresentation.

4. **Fairness:** The researcher has identified justice and fairness as the supreme values associated with all involved in the research process. Potential biases and unjust practices are avoided to the point of the researcher's experience.
5. **Privacy and Confidentiality:** The research process has taken precautionary measures to protect the participants right to privacy and dignity. This is done through ensuring anonymity.

DATA ANALYSIS AND RESULTS

The study has attempted to measure the Attention Span Dynamic in social media users. It has used a Quantitative Approach. The data collection is carried out through a Questionnaire, and results are analyzed quantitatively on SPSS. This section presents the data analysis to measure the hypothesis and results generated through the respective analyses.

4.1. Findings

The data collection process generated 164 responses. The demographic analysis of the data is given below.

Table 3: Gender

Gender		
	N	%
Male	65	39.6%
Female	87	53.0%
Others	4	2.4%
Gender Non-Conforming	2	1.2%
Agender	2	1.2%
Non-Binary	4	2.4%

The table 3 shows that out of the total 164 responses collected, 39.6% are males, 53% are females, 1.2% are Gender non-confirming, 1.2% are agender, 2.4% are non-binary and 2.4% are respondents who preferred not to share their gender.

Table 4: Age

Age		
	N	%
20-22 years	53	32.3%
22-24 Years	28	17.1%
25 – 30 years	83	50.6%

Table 4 shows the ages of the respondents with 32.3% of 20-22 years of age, 17.1% from 22-24 age group whereas 50.6% of respondents are of 25-30 years.

Table 5: Occupation

Occupation		
	N	%
Student	95	57.9%
Employed Full-Time	38	23.2%
Employed Part-Time	15	9.1%
Self-Employed	5	3.0%
Unemployed	10	6.1%
Other	1	0.6%

The table 5 shows the employment status of the respondents. The majority of respondents 57.9 % are students, 23.2% are fully employed, 9.1% are employed part time, 3% are self-employed, 6.1% are unemployed and 0.6% prefer not to share the employment category.

Table 6: Qualification

Qualification		
	N	%
No Education	5	3.0%
Primary	2	1.2%
Secondary	6	3.7%
Higher Secondary	4	2.4%
Undergraduate	57	34.8%
Graduate	23	14.0%
Post Graduate	63	38.4%
Vocational	2	1.2%
Diplomas	2	1.2%

Table 6 shows the qualification of respondents, with 38% being postgraduates, 34% undergraduates, 14% graduates, 1.2% having primary education, 3.7% having secondary education, 2.4% enrolled in vocational and diploma programmes, and 3% having no educational claims.

The study has done a reliability analysis for the data collection instrument and Likert scale objects. The reliability test was conducted using Cronbach's Alpha. Table 7 presents the case processing summary for the reliability analysis. All 164 participants' responses were included in the analysis, with no missing data.

Table 7: Reliability Analysis - Case Processing Summary

Case Processing Summary			
		N	%
Cases	Valid	164	100.0
	Excluded ^a	0	.0
	Total	164	100.0
a. Listwise deletion based on all variables in the procedure.			

Table 8: Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.840	67

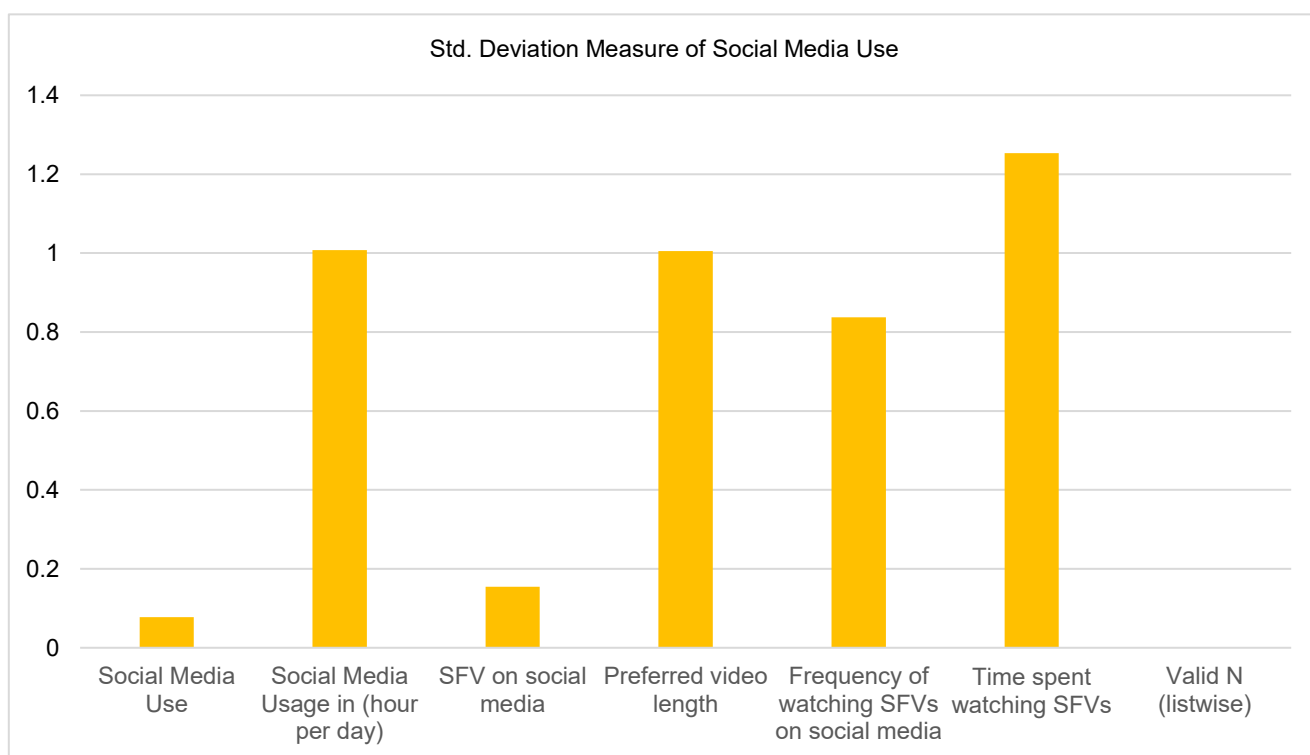
Table 8 presents the reliability analysis of the data. The test measures the internal consistency of data. The reliability shows a score of 0.840 indicating that the questions are reasonably consistent in measurement of the variable. The instrument has a good internal consistency.

Table 9: Descriptive Analysis of Social Media Usage

Descriptive analysis				
	N	Minimum	Maximum	Std. Deviation
Social Media Use	164	1	2	.078
Social Media Usage in (hour per day)	164	1	5	1.008
SFV on social media	164	1	2	.155
Preferred video length	164	0	5	1.005
Frequency of watching SFVs on social media	164	0	5	.837
Time spent watching SFVs	164	0	5	1.253
Valid N (listwise)	164			

Table 9 represents a descriptive analysis of data on social media usage. The standard deviation values of 0.78, 0.155, and 0.837 show that data for the responses under social media use, short-form videos on social media, and frequency of watching are clustered. However, the greater standard deviation values of 1.008, 1.005, and 1.253 for social media usage in hours, preferred video length, and time spent on watching short-form videos are varied and dispersed. The standard deviation measure of social media use is also presented in Graph 1.

Graph 1: Descriptive Analysis of Social Media Usage



The frequency of watching short format videos gives a standard deviation value of 0.837, indicating that participants are frequent viewers of short format videos. A standard deviation value of 1.253 indicates that users spent significant time watching short-format videos, and a high value of standard deviation shows that the engagement levels are varied.

Table 10: Social Media Platforms used to watch SFV

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation

Facebook	164	1	2	1.54	.500
Instagram	164	1	2	1.73	.448
YouTube	164	1	2	1.52	.501
X	164	1	2	1.04	.188
LinkedIn	164	1	2	1.08	.271
TikTok	164	1	2	1.21	.411
Other	164	1	2	1.05	.228
Valid N (listwise)	164				

Graph 2: Social Media Platforms used to watch SFV

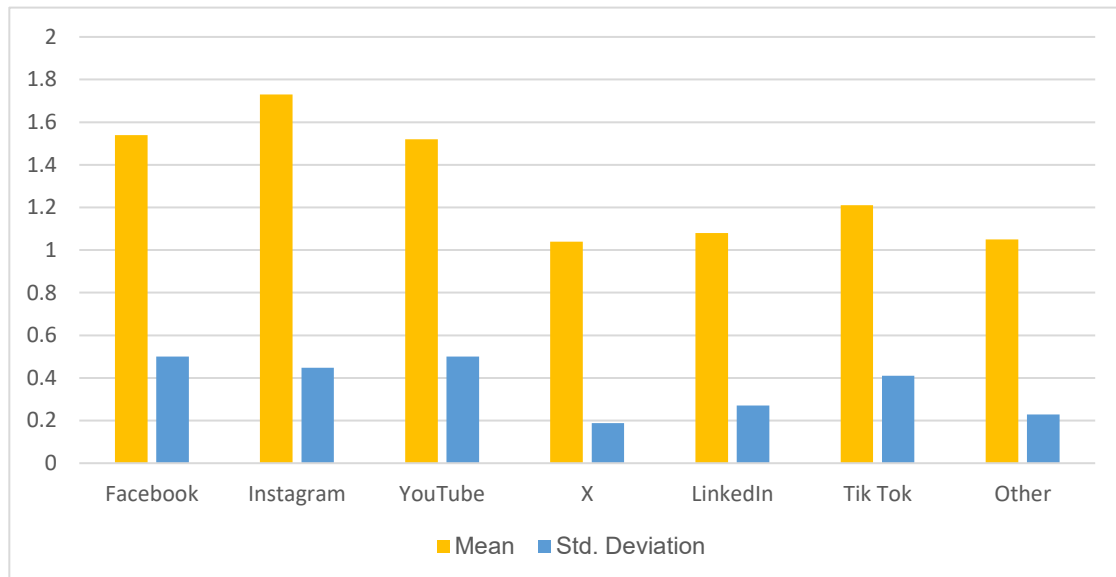


Table 10 and Graph 2 present descriptive statistics of social media platforms used to watch short format videos (SFVs). The standard deviation indicates the variation within the data set across the selected platforms. The platform distribution varies from 0.500 for Facebook to 0.411 on TikTok. The descriptive analysis of data on the use of social media platforms for watching short-form videos reveals that Instagram is the most widely used platform, with a mean of 1.73. Facebook and YouTube are the second most used platforms with a mean of 1.54 and 1.52. The platforms like Twitter, X, and LinkedIn are the least used platforms among users. A standard deviation value of .448 indicates consistency in the use of Instagram. The higher values of 0.500 and .501 indicate variability in use.

Table 11: Type of Content

	N	Minimum	Maximum	Mean	Std. Deviation
Entertainment	164	1	2	1.63	.483
Educational	164	1	2	1.41	.494
News and current affairs	164	1	2	1.41	.494
Lifestyle	164	1	2	1.34	.476
Product Reviews	164	1	2	1.07	.261
Other	164	1	2	1.07	.261
Valid N (listwise)	164				

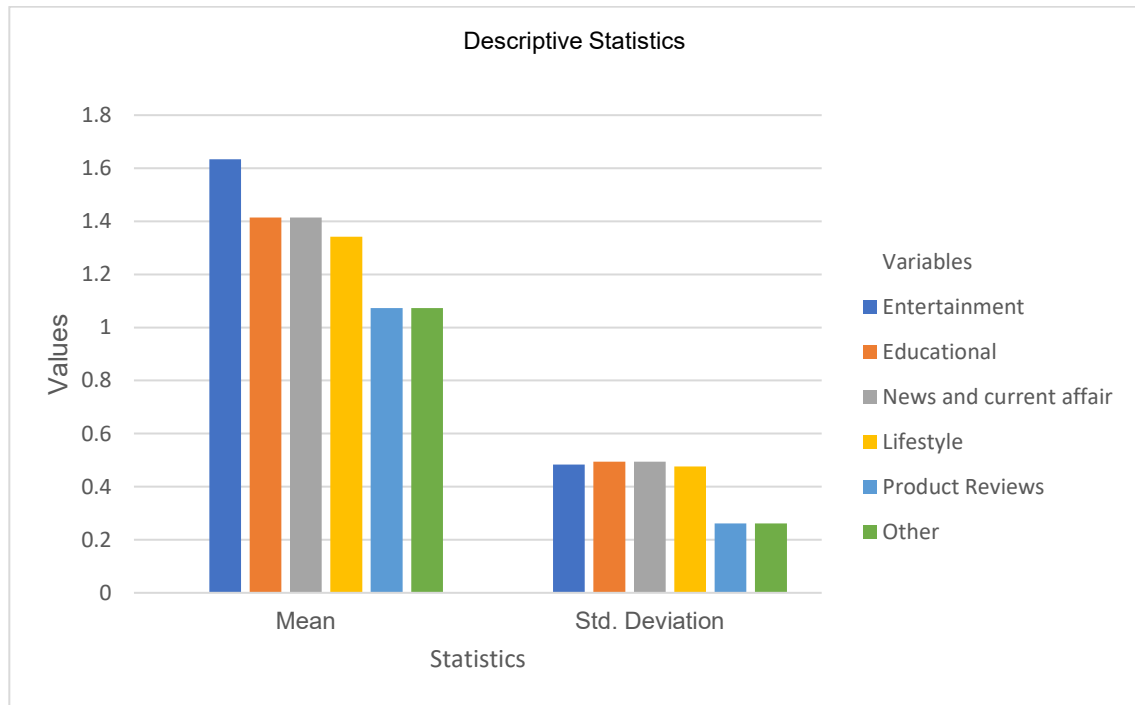
Graph 3: Type of Content

Table 11 and Graph 3 present the descriptive analysis of the type of content users prefer to watch on social media platforms. The lower standard deviation values indicate that the responses are consistent. The most watched type of content is entertainment, with a mean of 1.63. Education is the second preferred type of content. The least common type of media is product reviews, with a mean of 1.07. The standard deviation values are in the range of 0.47 and 0.94, which indicates that the data is not dispersed and is clustered about the mean. The respondents show a similar selection pattern in the type of content.

Table 12: Attention Span

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Difficult to focus on attention-requiring tasks	164	0	5	3.43	1.162

Difficult to complete detail-oriented task	164	0	5	3.23	1.211
Feel focused while watching SFVs	164	1	5	2.85	1.041
Difficulty focusing on longer activities	164	0	5	3.43	1.173
Cognitive abilities are affected by SFVs	164	0	5	3.72	1.088
SFV application notification disrupts attention	164	0	5	3.29	1.310
Feel the need to repeatedly check my phone	164	1	5	3.49	1.211
Focusing on SFVs is easier than long videos	164	1	5	3.59	1.073
Lose interest in videos of length more than 2 minutes	164	0	5	2.87	1.322
Watching SFVs improves multitasking abilities	164	0	5	2.39	1.042
Attention span is affected by watching SFVs	164	0	5	2.47	1.093
Information processing	164	1	5	2.91	1.044
Valid N (listwise)	164				

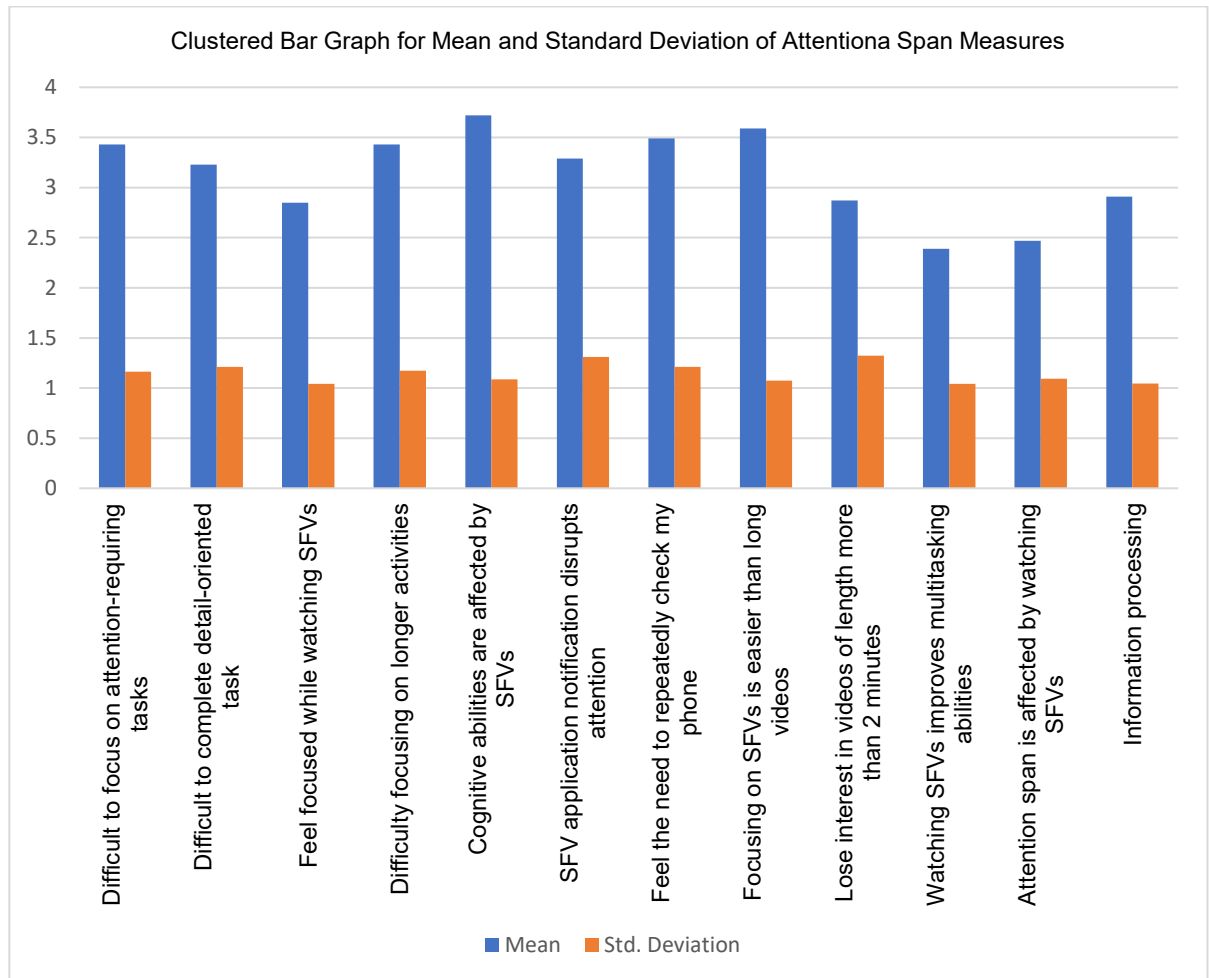
Graph 4: Mean Data for Attention Span

Table 12 and Graph 4 show the descriptive analysis for responses on Attention Span. The standard deviation values indicate medium to high variability in responses. The standard deviation values of objects are represented in attention patterns. A SD (Standard Deviation) of 1.093 indicates that participants variably lose attention in videos, and that may be higher or lower than a 2-minute span. For the item 'SFV application interrupts attention', the SD value of 1.31 shows that responses are consistent, as is the case with item 'feel focused on the video' shows consistent disagreement with the statement, indicating that they lose focus while watching short format videos. A standard deviation value of 1.16 for 'difficult to focus on attention-requiring task' shows consistent responses with the majority agreeing on the issue that attention is impacted by watching short-form videos.

Table 13: Preferred video length

Preferred Video Length		
	N	%
Do not watch	4	2.4%
Less than 15 seconds	11	6.7%
15-30 seconds	73	44.5%
30 seconds to 1 minute	51	31.1%
1-2 minutes	18	11.0%
More than 2 minutes	7	4.3%

Frequency distribution data of 'Preferred Video Length' of short videos indicate that 44.5% of users prefer to watch SFV of 15-30 seconds. 31% watch SFV for lengths of up to 60 seconds. 7% prefer to watch videos of length less than 15 seconds, whereas 15% of users prefer to watch videos of length 1-2 minutes. Graph 5 shows the frequency distribution pattern of 'Preferred Video Length'.

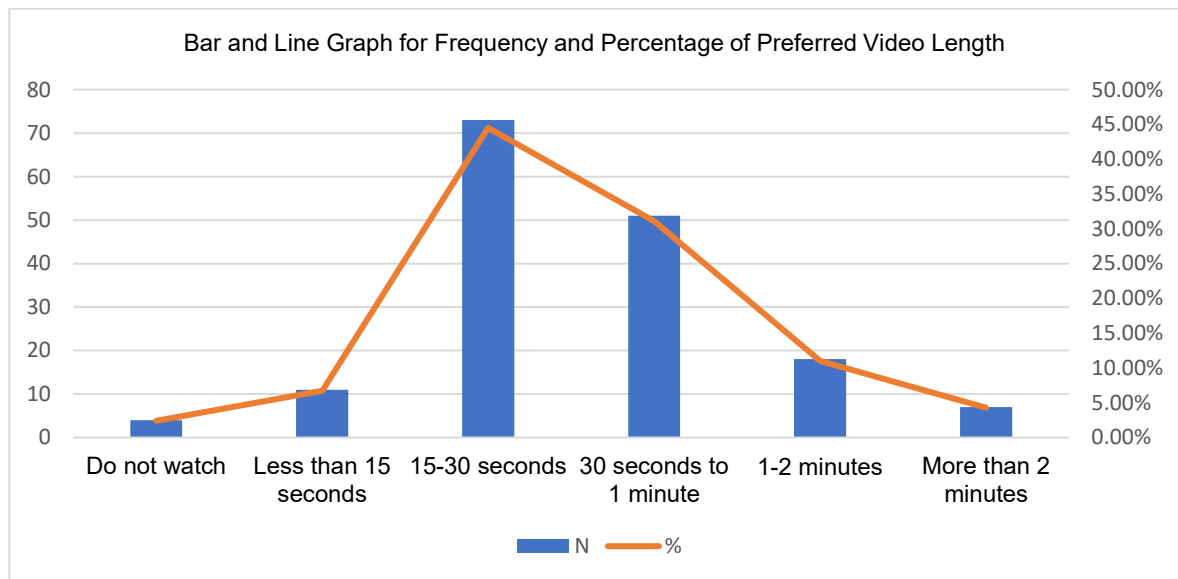
Graph 5: Preferred Video Length

Table 14: Platform Use

Social Media Platform		
	N	%
Facebook	88	53.7%
Instagram	119	72.6%
YouTube	86	52.4%
Twitter	6	3.7%
TikTok	35	21.3%
LinkedIn	13	7.9%
Other	9	5.5%

Table 14 shows the platform usage pattern among respondents. Instagram is the most used platform with 72.6%, Facebook at second with a percentage of 53.7%, and YouTube is the third most used social networking site with a percentage of 52.4%. X, LinkedIn, and TikTok are the least used platforms, with percentage values of 3.7%, 7.9%, and 21.3%.

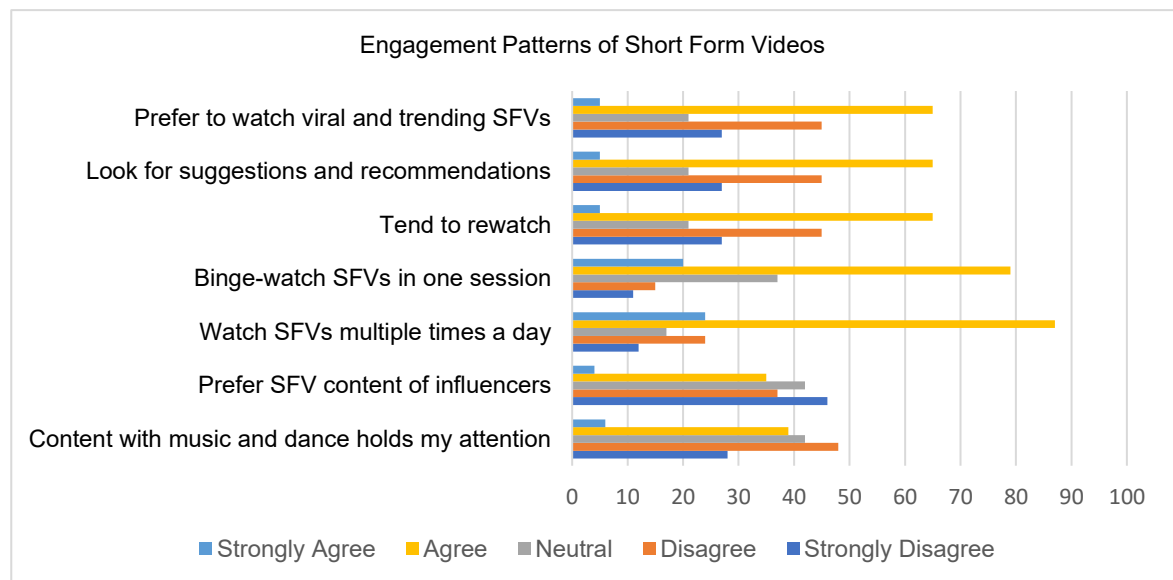
Table 15: Engagement Patterns

Statistics											
		Time spent daily on SFVs		Preferred content type		Comment on SFVs		Like SFVs on social media		Share SFVs on social media	
N	Valid	164		164		164		164		164	
	Missing	0		0		0		0		0	
		N	%	N	%	N	%	N	%	N	%
	Strongly Disagree	36	22%	72	43.9%	104	63.4%	48	29.3%	60	36.6%
	Disagree	32	19.5%	68	41.5%	24	14.6%	8	4.9%		
	Neutral	36	22%	24	14.6%	24	14.6%	48	29.3%	36	22%
	Agree	48	29.3%			12	7.3%	60	46.6%	56	34.1%
	Strongly Agree									12	7.3%

Disagree	48	29.3 %	37	22.6 %	2 4	14.6 %	15	9.1 %	45	27.4 %	45	27.4 %	4 5	27.4 %
Neutral	42	25.6 %	42	25.6 %	1 7	10.4 %	37	22.6 %	21	12.8 %	21	12.8 %	2 1	12.8 %
Agree	39	23.8 %	35	21.3 %	8 7	53.0 %	79	48.2 %	65	39.6 %	65	39.6 %	6 5	39.6 %
Strongly Agree	6	3.7 %	4	2.4 %	2 4	14.6 %	20	12.2 %	5	3.0 %	5	3.0 %	5 5	3.0 %

Table 16 shows the Likert scale frequencies of platform engagement items. The table shows responses to items 'Content with music and dance holds my attention', 'Prefer SFV content of influencers', 'Watch SFVs multiple times a day', 'Binge-watch SFVs in one session', 'Tend to rewatch', 'Look for suggestions and recommendations', and 'Prefer to watch viral and trending SFVs'. The values are also illustrated in Graph 7.

Graph 7: Engagement Patterns of Short Format Videos



Hypothesis 1

H₁: The short-format videos negatively affect the user's perceived ability to sustain attention.

H₀: Short-form videos have no relation to the sustained attention of users.

The researcher has analyzed the relation between short-form videos and users' perceived ability to sustain attention.

Table 17: Descriptives on Short form Video users and Attention Span

Group Statistics					
	SFV viewing groups	N	Mean	Std. Deviation	Std. Error Mean
Difficult to focus on attention requiring tasks	Low SFV Consumption	127	3.30	1.143	.101
	High SFV Consumption	37	3.86	1.134	.186
Difficult to complete detail-oriented task	Low SFV Consumption	127	3.15	1.182	.105
	High SFV Consumption	37	3.51	1.283	.211
Feel focused while watching SFVs	Low SFV Consumption	127	2.90	1.038	.092
	High SFV Consumption	37	2.70	1.051	.173
Difficulty to focus on longer activities	Low SFV Consumption	127	3.34	1.163	.103
	High SFV Consumption	37	3.76	1.164	.191
Cognitive abilities are affected by SFVs	Low SFV Consumption	127	3.69	1.067	.095
	High SFV Consumption	37	3.84	1.167	.192
SFV application notification disrupts attention	Low SFV Consumption	127	3.31	1.226	.109
	High SFV Consumption	37	3.19	1.578	.259
Feel the need to repeatedly check my phone	Low SFV Consumption	127	3.42	1.192	.106
	High SFV Consumption	37	3.76	1.256	.207
Focusing on SFVs is easier than long videos	Low SFV Consumption	127	3.50	1.083	.096
	High SFV Consumption	37	3.89	.994	.163

Lose interest in videos of length more than 2 minutes	Low SFV Consumption	127	2.63	1.277	.113
	High SFV Consumption	37	3.68	1.156	.190
Watching SFVs improves multi-tasking abilities	Low SFV Consumption	127	2.30	.995	.088
	High SFV Consumption	37	2.70	1.151	.189
Attention span is affected by watching SFVs	Low SFV Consumption	127	2.49	1.075	.095
	High SFV Consumption	37	2.41	1.166	.192
Information processing	Low SFV Consumption	127	2.82	.995	.088
	High SFV Consumption	37	3.22	1.158	.190
*Less than 30 minutes = Low SFV consumption					
* 30 minutes or more than 1 hour = High SFV Consumption					

Table 17 shows the descriptives on low and high SFV users and their attention span. The mean values show that users with high consumptions patterns of short format videos find it more difficult to focus on attention required tasks, difficult to complete detail-oriented task, feel that their cognitive abilities are affected by SFV, feel the need to repeatedly check phone, consider SFVs easier to focus on, significantly lose interest if video length in greater than 2 minutes, and feel difficulty in information processing. Whereas users with low SFV consumption have responded that they feel focused while watching videos, SFV sites' notification disrupts attention, considering their attention span is affected by SFVs.

Table 18: Independent T-Test Analysis

Independent Samples Test		
	Levene's Test for Equality of Variances	t-test for Equality of Means

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Difficult to focus on attention requiring tasks	Equal variances assumed	.799	.373	- 2.653	162	.009	-.566	.213	-.987	-.145
	Equal variances not assumed			- 2.665	58.975	.010	-.566	.212	-.990	-.141
Difficult to complete detail- oriented task	Equal variances assumed	.250	.618	- 1.616	162	.108	-.364	.225	-.809	.081
	Equal variances not assumed			- 1.545	55.062	.128	-.364	.236	-.836	.108
Feel focused while watching SFVs	Equal variances assumed	.349	.555	1.003	162	.317	.195	.194	-.189	.579
	Equal variances not assumed			.996	58.035	.323	.195	.196	-.197	.587
Difficulty to focus on longer activities	Equal variances assumed	.021	.885	- 1.924	162	.056	-.418	.217	-.847	.011
	Equal variances not assumed			- 1.923	58.556	.059	-.418	.217	-.853	.017
Cognitive abilities are	Equal variances assumed	.070	.792	-.750	162	.454	-.153	.204	-.555	.249

affected by SFVs	Equal variances not assumed			-.714	54.737	.478	-.153	.214	-.582	.276
SFV application notification disrupts attention	Equal variances assumed	7.472	.007	.513	162	.609	.126	.245	-.358	.610
	Equal variances not assumed			.447	49.335	.657	.126	.281	-.440	.691
Fee the need to repeatedly check my phone	Equal variances assumed	.025	.876	-1.506	162	.134	-.339	.225	-.784	.106
	Equal variances not assumed			-1.463	56.240	.149	-.339	.232	-.804	.125
Focusing on SFVs is easier than long videos	Equal variances assumed	2.886	.091	-1.952	162	.053	-.388	.199	-.780	.004
	Equal variances not assumed			-2.047	63.047	.045	-.388	.190	-.767	-.009
Lose interest in videos of length more than 2 minutes	Equal variances assumed	1.722	.191	-4.473	162	.000	-1.046	.234	-1.507	-.584
	Equal variances not assumed			-4.726	63.861	.000	-1.046	.221	-1.488	-.604
Watching SFVs improves multi-tasking abilities	Equal variances assumed	3.470	.064	-2.094	162	.038	-.403	.193	-.784	-.023
	Equal variances not assumed			-1.932	52.640	.059	-.403	.209	-.822	.015

Attention span is affected by watching SFVs	Equal variances assumed	.647	.422	.404	162	.687	.083	.205	-.322	.487
	Equal variances not assumed			.387	55.100	.700	.083	.214	-.346	.512
Information processing	Equal variances assumed	1.489	.224	- 2.057	162	.041	-.397	.193	-.779	-.016
	Equal variances not assumed			- 1.893	52.473	.064	-.397	.210	-.818	.024

Table 18 shows an independent t-test analysis on short-format video consumption and attention spans. The sig 2-tailed value of 'difficult to sustain attention' among the two groups gives a value of .009, indicating a significant difference between light and heavy users as they feel it is more difficult to sustain attention. The sig values of .056 and .045 indicate a significant difference between heavy and light users in focus on short-format videos. The sig value of less than .05 indicates a strong significance in responses of the two groups on the variable 'loss of interest in videos of length greater than 2 minutes. Sig value of .038 indicates a significant relation between heavy users of short-format videos and their perception of enhanced multitasking abilities. A sig value of .041 indicates a direct relation in less effective information processing in respondents with high short-form video consumption patterns. The results identify the negative impact of SFVs on users' perceived ability to sustain attention.

Table 19: Attention span scores on Grouped media use

Descriptives							
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Difficult to focus on attention	light	62	3.32	1.212	.154	3.01	3.63
	medium	70	3.40	1.109	.133	3.14	3.66
	heavy	32	3.69	1.176	.208	3.26	4.11

requiring tasks	Total	164	3.43	1.162	.091	3.25	3.61
Difficult to complete detail-oriented task	light	62	3.05	1.179	.150	2.75	3.35
	medium	70	3.16	1.223	.146	2.87	3.45
	heavy	32	3.75	1.136	.201	3.34	4.16
	Total	164	3.23	1.211	.095	3.04	3.42
Feel focused while watching SFVs	light	62	2.71	.982	.125	2.46	2.96
	medium	70	2.90	1.052	.126	2.65	3.15
	heavy	32	3.03	1.121	.198	2.63	3.44
	Total	164	2.85	1.041	.081	2.69	3.01
Difficulty to focus on longer activities	light	62	3.31	1.139	.145	3.02	3.60
	medium	70	3.51	1.176	.141	3.23	3.79
	heavy	32	3.50	1.244	.220	3.05	3.95
	Total	164	3.43	1.173	.092	3.25	3.61
Cognitive abilities are affected by SFVs	light	62	3.55	1.111	.141	3.27	3.83
	medium	70	3.87	.992	.119	3.63	4.11
	heavy	32	3.72	1.224	.216	3.28	4.16
	Total	164	3.72	1.088	.085	3.55	3.89
SFV application notification disrupts attention	light	62	3.26	1.173	.149	2.96	3.56
	medium	70	3.20	1.389	.166	2.87	3.53
	heavy	32	3.53	1.391	.246	3.03	4.03
	Total	164	3.29	1.310	.102	3.08	3.49
Feel the need to repeatedly check my phone	light	62	3.05	1.193	.152	2.75	3.35
	medium	70	3.56	1.150	.137	3.28	3.83
	heavy	32	4.22	1.008	.178	3.86	4.58
	Total	164	3.49	1.211	.095	3.31	3.68
Focusing on SFVs is easier than long videos	light	62	3.23	.999	.127	2.97	3.48
	medium	70	3.67	1.126	.135	3.40	3.94
	heavy	32	4.13	.833	.147	3.82	4.43
	Total	164	3.59	1.073	.084	3.43	3.76
Lose interest in videos of length more than 2 minutes	light	62	2.32	1.238	.157	2.01	2.64
	medium	70	3.07	1.243	.149	2.77	3.37
	heavy	32	3.47	1.295	.229	3.00	3.94
	Total	164	2.87	1.322	.103	2.66	3.07
Watching SFVs improves	light	62	2.21	.994	.126	1.96	2.46
	medium	70	2.43	1.015	.121	2.19	2.67
	heavy	32	2.66	1.153	.204	2.24	3.07

multi-tasking abilities	Total	164	2.39	1.042	.081	2.23	2.55
Attention span is affected by watching SFVs	light	62	2.50	1.052	.134	2.23	2.77
	medium	70	2.41	1.000	.120	2.18	2.65
	heavy	32	2.53	1.367	.242	2.04	3.02
	Total	164	2.47	1.093	.085	2.30	2.64
Information processing	light	62	2.89	.925	.117	2.65	3.12
	medium	70	2.76	1.055	.126	2.51	3.01
	heavy	32	3.28	1.170	.207	2.86	3.70
	Total	164	2.91	1.044	.082	2.75	3.07
*Less than 2 hours=Light user							
*2-4 hours = Medium users							
*4 hours and above = Heavy users							

Table 19 presents a descriptive analysis of attention spans of heavy, medium, and light social media users. It shows that heavy media users have difficulty in focusing on attention-requiring tasks, feel the need to repeatedly check their phones, lose interest if a video is long, and their attention span is affected by short-form videos. Heavy media users also have a higher mean value on difficulty in information processing.

Anova is the Analysis of Variance in variables being tested. Table 20 presents the ANOVA results between the variables of social media use and sustained attention. The analysis of variance shows a varying relationship between the two variables. The p-value for difficult to focus attention is .344, hence no significant difference exists in responses of heavy, medium, and light social media users. The higher p-values greater than 0.05 indicate an insignificant difference between the usage of the three groups. The p-value of .022 suggests that heavy users struggle more in maintaining attention in detail-oriented tasks than others. Heavy users tend to repeatedly check phones for content and consider focusing on short format videos easier than long format, as indicated by the p-value of .000. Heavy users also tend to lose interest in videos if they are more than two minutes long. Information processing also becomes difficult for heavy users, as indicated by the p-value of .061.

Table 20: Analysis of Variance

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Difficult to focus on attention requiring tasks	Between Groups	2.899	2	1.449	1.074	.344
	Within Groups	217.223	161	1.349		
	Total	220.122	163			
Difficult to complete detail-oriented task	Between Groups	11.069	2	5.534	3.906	.022
	Within Groups	228.126	161	1.417		
	Total	239.195	163			
Feel focused while watching SFVs	Between Groups	2.445	2	1.222	1.131	.325
	Within Groups	174.043	161	1.081		
	Total	176.488	163			
Difficulty to focus on longer activities	Between Groups	1.599	2	.800	.578	.562
	Within Groups	222.663	161	1.383		
	Total	224.262	163			
Cognitive abilities are affected by SFVs	Between Groups	3.431	2	1.716	1.456	.236
	Within Groups	189.666	161	1.178		
	Total	193.098	163			
SFV application notification disrupts attention	Between Groups	2.491	2	1.245	.724	.487
	Within Groups	277.040	161	1.721		
	Total	279.530	163			
Feel the need to repeatedly check my phone	Between Groups	29.399	2	14.699	11.291	.000
	Within Groups	209.595	161	1.302		
	Total	238.994	163			

Focusing on SFVs is easier than long videos	Between Groups	17.846	2	8.923	8.462	.000
	Within Groups	169.782	161	1.055		
	Total	187.628	163			
Lose interest in videos of length more than 2 minutes	Between Groups	32.889	2	16.444	10.499	.000
	Within Groups	252.160	161	1.566		
	Total	285.049	163			
Watching SFVs improves multitasking abilities	Between Groups	4.389	2	2.194	2.046	.133
	Within Groups	172.636	161	1.072		
	Total	177.024	163			
Attention span is affected by watching SFVs	Between Groups	.393	2	.197	.163	.850
	Within Groups	194.454	161	1.208		
	Total	194.848	163			
Information processing	Between Groups	6.078	2	3.039	2.852	.061
	Within Groups	171.550	161	1.066		
	Total	177.628	163			

The researcher has also used Pearson's Correlation between two variables as given in Table 21. There is a significant relation between the variables short format video times and attention span. A p-value of .001 indicated a strong positive correlation between attention span scores and the number of hours spent on watching short-format videos. The relation proves the hypothesis that the use of shorter format videos negatively affects the attention spans of users. However, variables like difficulty focusing and the effect on cognitive abilities do not have any relation with the time it is used.

Table 21: Pearson Correlation

		Correlations												
		Social Media Usage	Difficult to focus on attention-requiring tasks	Difficult to complete detail-oriented task	Feel focused while watching SFVs	Difficulty focusing on longer activities	Cognitive abilities are affected by SFVs	SFV application notification disrupts attention	Feel the need to repeatedly check my phone	Focusing on SFVs is easier than long videos	Lose interest in videos of length more than 2 minutes	Watching SFVs improves multitasking abilities	Attention span is affected by watching SFVs	Information processing
Social Media Usage in hour per day	Pearson Correlation	1	.098	.176*	.107	.103	.118	.043	.373*	.301*	.335**	.071	-.059	.055
	Sig. (2-tailed)		.214	.024	.173	.189	.133	.588	.000	.000	.000	.364	.449	.444
	N	164	164	164	164	164	164	164	164	164	164	164	164	164
*. Correlation is significant at the 0.05 level (2-tailed).														
**. Correlation is significant at the 0.01 level (2-tailed).														

Hypothesis 2

H₂: The users of short-form video content exhibit a preference for fast-paced content consumption

H₀: The users of short-form video content exhibit no preference for fast-paced content consumption.

The researcher has tested hypothesis two for chi-square analysis between users' preferences over fast and short-paced videos.

Table 22: Chi-Square tests for preference over fast paced content

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	26.611 ^a	1	.000
Continuity Correction	24.628	1	.000
Likelihood Ratio	38.456	1	.000
Fisher's Exact Test			
Linear-by-Linear Association	26.448	1	.000
N of Valid Cases	164		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.17.			

Table 22 shows Pearson Chi Square analysis for the preference of fast-paced content of users of short-format and long-format videos. The results generate a person's Chi-square value of 26.611 with a df value of 1. The asymptomatic significance value is less than 0.001, which indicates a statistically significant relation between the two variables. The association indicates that short and long format video viewers have varied preferences for fast-paced content. The linear trend shows that viewers of short-form video prefer fast-paced content more than the other group. The analysis rejects the null hypothesis.

The research also used regression analysis to identify whether a high preference for short-format videos leads to high consumption of fast-paced videos. Table 23 shows that the regression analysis included all 164 participants, with no missing cases, and used the default classification cutoff value of 0.5.

Table 23: Case Processing Summary-Regression Analysis

Case Processing Summary			
Unweighted Cases ^a		N	Percent
Selected Cases	Included in Analysis	164	100.0
	Missing Cases	0	.0
	Total	164	100.0

Unselected Cases	0	.0
Total	164	100.0
a. The cut value is .500		

Table 24: Regression Analysis

Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
	Users of SFV	-.231	.335	.475	1	.491	.794
	Constant	.867	.489	3.137	1	.077	2.379

Table 24 shows regression analysis predicting whether high short-form video consumption leads to a preference for fast-paced content. The analysis shows no significant direct relation between the two. The B value of -.231, negative values lessen the chances of users of short-format videos progressively preferring fast-paced videos. The Sig. value is 0.491 that is greater than 0.005, predicting no statistical relation between the measured variables. The results hence negate hypothesis 2 and verify H_0 that the users of short-form videos exhibit no preference for fast-paced content consumption.

4.2. Summary of Findings

The study aimed to analyze the relationship between short-form videos and the attention span of young users. The research proposed a hypothesis that short-format videos affect users' perceived ability to sustain attention and that users of fast-paced content show a preference for fast-paced content consumption. The hypothesis has been tested using ANOVA, Chi square, and regression Analysis. The analysis of data has generated varied results for both hypotheses.

Data were collected from users aged 20 - 30 years. Out of 164 responses, 73% agree that they are frequent viewer of short-format videos on social media. The users prefer to watch SFV (Short format videos) of length less than 30 seconds. The most used platforms for accessing SFV content are Facebook, Instagram, and YouTube. However, there is a lack of preference overs platforms like X and LinkedIn. The frequency analysis of engagement patterns identified that users don't engage with short-format videos frequently. The Likert

scale analysis generated high frequency disagreement when asked about commenting, liking, and sharing of short-format videos on social media platforms. The Likert scale analysis also found that users, however, tend to binge-watch short-format videos and repeatedly watch them. Agreement frequency also showed a trend of users looking for suggestions and viral and trending short-form videos.

For the first hypothesis, the study used T-tests and Analysis of variance. The test generated a sig 2-tailed value of .009 for difficulty of focus, .056 on 'difficult to focus on longer videos', and .053 on 'focusing on SFV is easier than long videos', .038 for watching SFV improves multitasking, and .041 on 'difficulty on information processing' and a sig value less than 0.005 for 'lose interest'. The values indicate a significant relation between the variables, sustained attention, and heavy and light users of short-format videos on social media. The results state that the use of short-format videos generates a negative perception of users' perceived ability to sustain attention.

The Analysis of variance also generated significant results between attention and short-format video viewing. The p-values are less than .05, indicating that users with a high frequency of watching short-form videos struggle to maintain attention for longer durations. The Pearson correlation observed a significant relation between no of hours spent watching short-format videos and attention span scores, rejecting the null hypothesis and verifying hypothesis 1 that short-format videos effect users' perceived ability to sustain attention.

For hypothesis 2, the study has used Chi-square and Regression analysis. The Chi-square test generates a result with a sig value of less than 0.00, indicating a significant relation between high-level short-form video users and preference for fast-paced content. The results hence reject the null hypothesis and verify that users of short-form videos exhibit a preference for fast-paced content consumption. However, the regression analysis suggests that there is no linear progression in the two variables. The results do not indicate that as the users of SFV increase, the consumption of fast-paced videos increases. The result is limited in this context.

DISCUSSION AND CONCLUSION

5.1. Discussion

The media universe has been evolving over the decades and varying the information consumption patterns amongst users. The increasing consumption of content and use of social media has generated the term of Attention that defines the ability of an individual to focus on a task and process it. Attention is a social media resource and hence is widely studied and researched (Asimovic & Scheerder, 2022; Krauzlis et al., 2023; Stevens, 1951). The literature has identified the proliferation of short-form video content on social media. The SFV content gratifies the user's need for entertainment, education, and escape as well. The widely understood notion identifies that a video longer than 1 minute is not a part of SFV. SFV has enhanced human-machine interaction by immersion and attention (Apasrawirote et al., 2022; Collins, 2023). However, the attention resources are scattered in SFVs, and user attention spans vary. Multiple studies on short format videos and attention span have identified that the format is less attention retaining and creates a time fallacy. The users engage with short format videos through views, likes, shares and comments. (Asif & Kazi, 2024; Glaser, 2024).

The study developed a theoretical framework from Cognitive load theory that is based on borrowing and reorganizing, knowledge creation, cognition in active memory, and simultaneity in processing information. The theoretical definition identified that the attention span of users is interrupted by continuous exposure, load on memory, and rapid shifting attention due to fast-paced content (Mestre & Ross, 2011; Plass et al., 2010). The hypothesis, hence generated, aimed to identify the relation between short format videos and the negative effect on perceived ability to sustain attention in users, and the relation between users of short format videos and preference for fast-paced content.

The research approach selected is quantitative. An online questionnaire-based survey is used as an instrument of study. (Stoop & Harrison, 2012; Wimmer, 2011) The survey questions are designed to measure constructs related to identifying demographics, social media usage patterns, Likert scale analysis on the type of content, sustained attention measure, and preferences for viewing short-form videos. The sample collected was then analyzed for descriptive statistics on SPSS. The statistical analysis on SPSS generated

results that align with the hypothesis that the short form of videos affects the user's perceived ability to sustain attention. The analysis also determined a positive relation between the consumption of short-format videos and preference for fast-paced content. The regression analysis, however, indicated that the relation is not consistent and may vary with the increase in sample. The findings are in line with the literature review. As suggested by short-form videos generate user interaction by working on attention and immersion. Kuo (2024) indicated that videos disturb time management and affect the active reading and listening skills of users. social media videos are vivid and affect the attention spans. The deficits in attention span are generated when the information processing is mediated. The research has identified that addicted users of short-form videos have difficulty in attention retention (Bâce et al., 2020; Binder et al., 1990; Chen et al., 2023). The study also identified difficulty in information and attention retention among users who watch short-form videos. The variability in data regarding the sustained attention perceptions and users' actual reported measurements on difficult information processing and attention indicates a sense of time fallacy among users. Research has identified the significant effects of short-form videos on users' ability to perceive attention, verifying the hypothesis.

5.2. Conclusion

The short format videos are small time length videos that are created and posted on social media. The videos provide users with entertainment, education, news, and information in a matter of 30 seconds to one minute. The genre has become widely popular and hence is significantly affecting attention spans. The research conducted aimed at identifying how the use of short-format videos affects the attention span of users. The study used a quantitative survey to collect data from users regarding preference for the use of short format videos, content preferred, sustaining attention, engagement metrics, and preference for the use of short format videos. The questionnaire addressed multiple questions to measure each construct. The population for the data was active social media users. The sample was collected based on snowball sampling, and a total of n=164 responses were generated. The results were analyzed and tested for ANOVA and variance. The results generated showed that the users actively tend to watch short-form videos on social networking sites like Instagram, Facebook, and YouTube. The content watched is usually for entertainment and education. Users also tend to actively watch content on lifestyle and current affairs on short-form videos. The users do not comment or share videos; however, they tend to like and rewatch videos, which indicates that the engagement patterns, though not significant but do

exist. The statistical analysis generated a significant correlation for some variables and a moderate correlation for others. The results verified that short-format video consumption negatively affects the user's ability to sustain attention. Users gave varied responses on constructs of difficulty to focus and sustain attention and information processing. The chi-square analysis verifies the hypothesis that short-format video users prefer to watch fast-paced content. However, the regression analysis does not verify that there is a significant linear relationship. The variation is limited by the data in the study.

5.3. Future Recommendations

The study has identified the relation between short-format video viewing on social media and perceived attention sustainability. However, there are many avenues left unexplored. The future research could focus on a more specified approach by using a set of short-format videos to analyze responses. The study only focused on attention retention. There is a need for in-depth analysis on information retention and issues of time fallacy among users. The study can be replicated for age groups of less than 20 years and identify the patterns amongst Generation Z and Generation Alpha.

5.4. Limitations

The study attended to platform-specific analysis and may not apply to other social media networking sites. The focus of the study is identifying the short-form content usage impact on attention through specific platforms in conjunction with YouTube, Instagram, and Snapchat. The research findings may not be generalizable to all possible demographics, as research is focused on the young generation between the ages of 20-30. Social media is a platform controlled by ever-evolving algorithms that can make the findings ephemeral and outdated.

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