

Implementation of MDLC Method to Create Promotional Videos for Tahu Bakso Mak Cito

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Abstract– The use of technology has a good impact in various sectors, including the culinary industry. Tahu Bakso Mak Cito, located in Leuwiliang, Bogor, faces challenges in adapting to technology, especially for marketing. This community service aims to overcome the problems faced by Tahu Bakso Mak Cito in promoting its products. The proposed solution is to create promotional videos by utilizing multimedia for effective marketing. A SWOT analysis was first carried out to identify the challenges faced by Tahu Bakso Mak Cito, including limited marketing strategies, competition from larger food companies, low production scale, and short product shelf life. After the problem has been identified using the SWOT Analysis, video development is then carried out by following the multimedia development methodology, namely the Multimedia Development Life Cycle, which includes initialization, blueprint design, asset preparation, product development, as well as testing and validation. To overcome this problem, solutions are proposed, including multimedia and social media marketing strategies. It is hoped that the success of making a promotional video for Tahu Bakso Mak Cito can improve their marketing capabilities in this era of technological development, which is not only useful for increasing brand awareness, but also becomes an inspiration for entrepreneurship. The positive response from the owners of Tahu Bakso Mak Cito UMKM was that they felt it was helpful to promote this community service activity.

Keywords: Advertisement Video; Promotion Video; Multimedia; Multimedia Development Life Cycle; SWOT Analysis

1. INTRODUCTION

Tahu Bakso Mak Cito which is located at Jl. Leuwiliang Circle, District Leuwiliang, Bogor Regency, West Java is one of the culinary stall in the area that was founded in 2020. Technological development have been widely utilized by many sectors including the culinary (Siswanto & Novarena, 2017). One use of the use information technology to support the culinary marketing process is making promotional videos (Maulani et al., 2017). Creating promotional videos can involve a number of obstacles. The production of promotional videos is a multifaceted process fraught with various challenges. One primary obstacle is the constraint of a limited budget, as creating high-quality videos often demands professional equipment and expertise, incurring significant costs. Furthermore, equipment limitations pose another hurdle, as not all individuals or organizations have access to top-tier video tools, potentially affecting the overall video quality (Sinta & Sembiring, 2017). Skill limitations in video editing, graphic design, and scriptwriting can also impede the creation process, influencing the final outcome. Time constraints present a substantial challenge, given that crafting quality videos demands extensive planning and editing, becoming particularly critical when faced with tight deadlines. Team availability and coordination add complexity, with challenges arising from coordinating schedules, overcoming geographical barriers, and ensuring cohesive collaboration. Changes in project requirements during the creation process can result in delays and necessitate substantial revisions. Technical issues, such as equipment failures or data loss, pose inherent risks to the video production timeline. Additionally, legal and regulatory compliance, especially in business promotional videos, requires careful consideration to avoid legal obstacles related to copyright and privacy laws. The strength of the video concept can also be a double-edged sword, as

disadvantages may emerge, and a lack of a compelling idea can diminish the video's impact, demanding extra time and creativity for development. Lastly, predicting the response of the target audience is challenging, requiring careful consideration of the video's relevance and appeal to ensure its effectiveness in the promotional landscape. Navigating these obstacles demands a strategic and adaptive approach throughout the video creation process.

To address the challenges inherent in creating promotional videos, a structured and creative approach is essential. The Multimedia Development Life Cycle (MDLC) provides a comprehensive methodology to navigate these complexities (Adelia et al., 2023). Firstly, meticulous planning is imperative before production begins, involving script creation, location scouting, and thorough preparation to avoid sudden changes that may impact both budget and timeline. A crucial aspect is assembling a proficient team with the requisite skills and experience, ensuring they can seamlessly collaborate throughout the production process. Careful budget allocation is vital, striking a balance between quality and financial constraints, and selecting equipment that aligns with the allocated budget is essential. Effective time management is integral to ensure each production step is executed efficiently (Morozov & Markov, 2000). For those with limited technical expertise or time, the use of templates or online video creation tools can simplify the process. Embracing flexibility and preparedness for change is crucial, as it may lead to improved ideas or more efficient solutions during production. Lastly, fostering effective communication channels among team members is paramount, minimizing misunderstandings and ensuring alignment throughout the project. By adhering to the MDLC, these strategies collectively contribute to a streamlined and effective approach for overcoming the challenges of creating impactful promotional videos.

MDLC is a phases that go through in developing a multimedia project, from idea conception to implementation and distribution (Roedavan et al., 2022). This process is similar to the general software development life cycle, but specifically aimed at multimedia projects. The following are some general stages in the MDLC such as: (1) initialization to prepare of a project plan that includes resources, budget and time schedule, initial design and visual concept of a multimedia project, and identify required hardware and software; (2) blueprint design to develop of detailed project designs, including graphic design, user interface, and multimedia scripts, creating a storyboard or prototype to provide a visual overview of the project, and selection of the right technology and platform; (3) assets preparation of multimedia elements, including graphics, sound, video and animation, and revising projects throughout the production process; (4) product development to implement of multimedia projects based on approved designs; and (5) testing and validation the functionality and performance of multimedia projects, compatibility testing with various devices and platforms, and evaluate from the user's perspective to ensure the quality of the user experience (Uden et al., 2000).

Making promotional videos in community service can provide a number of benefits such as provide an effective communication to convey complex messages or important information, provide high visual appeal including visual elements such as graphics, images and video footage, promotional videos can attract attention and make the message stick in the memory, emotional influence by combining music, images and a powerful story, promotional videos can create an emotional experience that can motivate action or participation from the public, increased reputation and engagement with high-quality promotional videos can improve the reputation of an organization or community service project, better Brand awareness can help build and enhance brand recognition or project identity, easy distribution with the development of social media and online video sharing platforms, distribution of promotional videos has become easier.

2. IMPLEMENTATION METHOD

The method used in multimedia development is the Multimedia Development Life Cycle (MDLC). There are several steps in MDLC, namely initialization, blueprint design, assets preparation, product development, and testing and validation as shown figure 1.

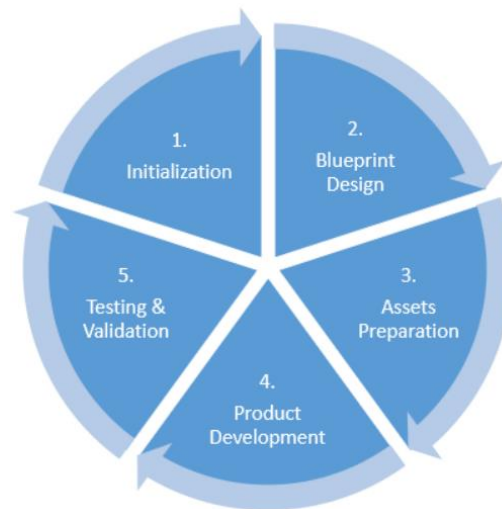


Figure 1. Multimedia Development Life Cycle (Roedavan et al., 2022)

2.1 Initialization

This stage involves identifying goals, determining target partners, SWOT analysis, defining technical requirements, determining schedule, and estimating how many resources are involved.

2.1.1 Identifying Goal

Making promotional videos aims to promote or market a product, service, event or brand in a visual and attractive way. Some common goals of creating promotional videos involve:

- a. Increasing Awareness
Promotional videos help increase awareness about a product, service or brand among the target audience. This may include brand recognition, product features, or service benefits.
- b. Increasing Engagement
Video has a strong visual appeal and can help generate interest and engagement more than text or static images. Interesting videos can stimulate participation and interaction from viewers
- c. Explain the Feature
Promotional videos can be used to explain the features, benefits, or how to use a product or service in more detail. This helps potential consumers understand the added value they are getting.
- d. Increase Sales
An effective promotional video can motivate viewers to make a purchase or take a specific action, such as registering, visiting a website, or subscribing.
- e. Building Brand Image
Promotional videos can help build a brand image by conveying messages that support brand values and identity. This can include the visual style, tone of voice, and story associated with the brand.

2.1.2 Determining Target Partner

The target partner for this community service activity is:

Partner's name	: Tahu Bakso Mak Cito
Location	: Kec. Leuwiliang, Kabupaten Bogor, Jawa Barat.
Distance from campus	: 150 km.
Community service cost	: Rp0,-
Time schedule	: October 1, 2023 – November 30, 2023

Tahu Bakso Mak Cito's stall can be shown in figure 2.



Figure 2. Tahu Bakso Mak Cito's stall

The partner target are determined based on the following considerations, such as:

- a. In line with the aim of community service is to increase brand awareness and encourage UMKM sales.
- b. In accordance with the demographics, interests and behavior of partner customers, who want to know the partner's products more widely, not limited to only customers who are close to the partner.

2.1.3 SWOT Analysis

The following are SWOT analysis of making a promotional video for Tahu Bakso Mak Cito:

- a. Strengths
 1. Creative concept, assess the creativity and uniqueness of Tahu Bakso Mak Cito promotional video concept.
 2. Production quality, evaluate the production quality, including video and audio elements.
 3. Compelling storytelling, includes a narrative, assess how well the storytelling aligns with Tahu Bakso Mak Cito's brand and resonates with the customer.
- b. Weaknesses
 1. Limited budget, consider if there are budget constraints that may affect the overall quality or scope of the video.
 2. Lack of clarity, evaluate whether the message of the video is clear and easily understandable. A confusing or unclear message can weaken the impact of promotional efforts.
 3. Ineffective call to action, assess whether the video effectively guides viewers on what action to take next. An ineffective call to action may result in a lack of conversion.
- c. Opportunities
 1. Video repository platform, leverage the opportunities presented by video repository platforms for video promotion like Youtube.
 2. Collaborations, explore collaboration opportunities with influencers, other brands, or content creators to expand video's reach and impact.
 3. Trends in Video Marketing: Stay abreast of emerging trends in video marketing, such as interactive videos, live streaming, or short-form content, and consider incorporating them into strategy.
- d. Threats
 1. Competition, analyze the competitive landscape and potential threats from other promotional videos, then identify what makes Tahu Bakso Mak Cito's video unique.
 2. Technical issues, be aware of potential technical issues that could affect the video's performance, such as slow loading times or compatibility issues across different devices.

3. Changing consumer behavior, consider how shifts in consumer behavior or preferences may impact the effectiveness of Tahu Bakso Mak Cito’s promotional video.

2.1.3 Defining Technical Requirements

Creating a promotional video involves several technical requirements to ensure the video is of high quality, engaging, and compatible with various platforms. Here are some technical aspects to consider when creating a Tahu Bakso Mak Cito’s promotional video:

- a. resolution and aspect ratio
- b. frame rates;
- c. video codec and format;
- d. audio quality;
- e. storyboard and script;
- f. lighting and color grading;
- g. graphics and animation;
- h. editing software;
- i. transitions and effects;
- j. voiceover or narration; and
- k. file size and compression

2.1.4 Determining Schedule

The following detailed schedule for PkM activity plans can be seen in table 1.

Table 1. Community Service Schedule Plan

Number	Date	Activity
1	October 1, 2023	Submit a proposal
2	October 8, 2023	Equipment preparation
3	October 16, 2023	First stage video shooting
4	October 17, 2023	Second stage video shooting
5	October 20, 2023	First stage video editing
6	October 27, 2023	Second stage video editing
7	November 1, 2023	Video production
8	November 7, 2023	Create report

2.1.5 Estimating Resources

The following are the facilitators and committee members of this community service activity, in which we involve lecturers, students and technician as shown in table 2.

Table 2. Estimating Resources

Name	Occupation	Role	Task Activity
Kurnia R. Putra, S.Kom., M.T	Lecturer	Chairman of Community Service	Ensure all tasks related to making promotional videos are completed on time and the team collaborates well
Nur Fitrianti F., S.Kom., M.T	Lecturer	Quality Assurance	Test and check videos and to ensure that everything runs smoothly and without errors before launching
Sofia Umaroh, S.Pd., M.T.	Lecturer	Video Editor	Edit video content according to the storyboard

Name	Occupation	Role	Task Activity
Ahmad Heikal	Technician	Equipment Installer & Troubleshooter	Install and repair if any equipment has technical problems
Muhammad Faiz Himawan	Student	Content Writer	Write a video script
Usamah Hasan	Student	Shooting Equipment Man	Prepare and tidy up and store tools for recording needs
Muhammad Ichsan A.	Student	Video Shooter	Shoot videos of all activities related to promotional video content
Yaris Hernandi Nugraha	Student	Video Editor	Edit video content according to the script
Fauzan Addien	Student	Video Editor	Edit video content according to the script

2.2 Blueprint Design

Creating a video blueprint involves planning and outlining the visual and narrative elements of video project. While a traditional blueprint is often associated with architectural or technical drawings, a video blueprint is a conceptual guide that outlines the key components of video production (Simonics, 2013).

- Craft a Compelling Storyline: develop a storyline or script that aligns with goals, create a narrative structure with a clear beginning, middle, and end. Ensure that the story connects with audience emotionally.
- Storyboarding: create a storyboard that visually represents each scene in video.
- Scripting and Dialogues: write a script that complements storyboard.

The techniques used to make video blueprints are Storyboard and Storyline. The storyboard of this promotional video can be shown in figure 3.

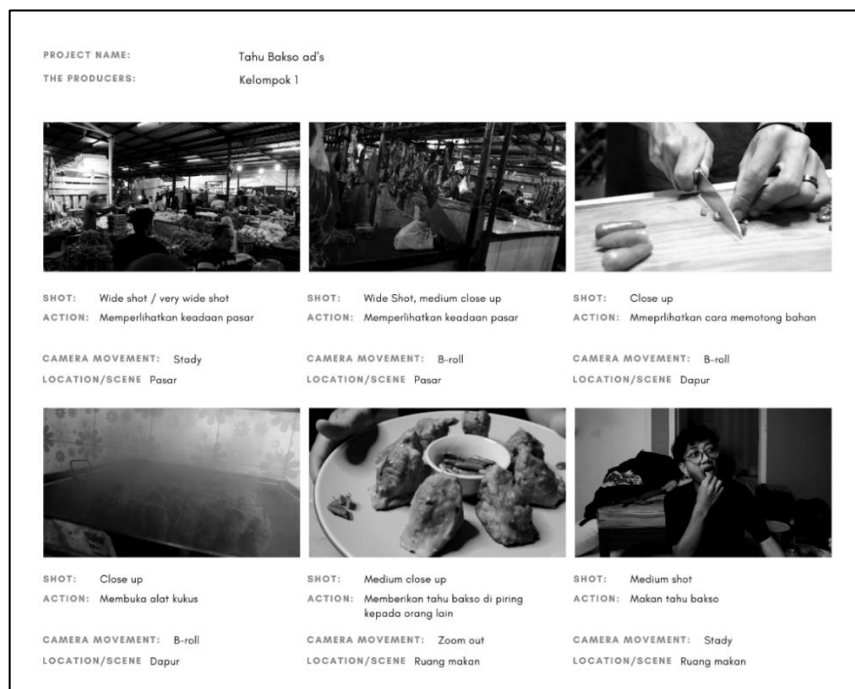


Figure 3. The Storyboard of Tahu Bakso Mak Cito's Video

2.3 Assets Preparation

Preparing assets for a promotional video involves gathering and organizing all the elements needed to create a compelling and effective video such as (Rahayu et al., 2019):

- a. Visual Elements
Gather visual assets such as images, graphics, logos, and videos that you plan to include in promotional video. Ensure that these elements are high-quality and relevant to message.
- b. B-Roll Footage
Gather B-roll footage to complement the main footage. B-roll includes additional shots or scenes that add context or visual interest to video.
- c. Branding Elements
Collect branding elements such as company logo, brand colors, and any other visual elements that represent brand identity. Consistent branding helps reinforce company's image.
- d. Music and Sound Effects
Choose background music or sound effects that complement the mood and tone of video. Ensure that you have the necessary licenses for any music you use to avoid copyright issues.
- e. Voiceover or Narration Script
The video includes voiceover or narration, prepare a script for the spoken content. Clearly indicate where each part of the script corresponds to specific scenes in the video.

2.4 Product Development

Product development in the context of promotional videos refers to the process of designing, developing and compiling video content that introduces and promotes product (Halim, 2018). Here are some steps that can be taken in the product development stage for promotional videos:

- a. Determine Video Style and Approach
- b. Choose a video style and approach that suits for product characteristics of Tahu Bakso Mak Cito.
- c. Design the Script and Narrative
Write effective and engaging scripts. The script should include an introduction to the product, its benefits, and a call to action.
- d. Storyboarding
Create a storyboard that visually depicts how the video will be designed. This includes scene layout, camera composition, and transitions between scenes
- e. Consider Video Length
Determine the optimal length for promotional video. Make sure that the video length is sufficient to convey the message clearly without losing the audience's attention.
- f. Record and Production
Carry out the recording and video production process according to the plan that has been made. Ensure that production quality meets desired standards.
- g. Editing and Finishing
Carry out the video editing process to arrange scenes, add visual effects, and ensure that the storyline runs well. Include branding elements and product messages clearly.
- h. Beta Test or Preview
Before the official launch, beta test or preview the promotional video to a small group of audience or business partners. Pay attention to their responses and make changes if necessary.
- i. Launch and Promotion
Once the video is complete, do an official launch and promote the video through relevant channels. Use marketing campaigns to increase reach and engagement.

2.5 Testing and Validation

Testing and validation of a promotional video are critical steps to ensure its effectiveness and impact on the target audience. These processes involve evaluating various aspects of the video, from technical elements to its alignment with marketing objectives. Here's a several approaches to testing and validating a promotional video:

- a. Technical Quality Check:
 1. Verify the video's resolution, clarity, and audio quality.
 2. Test compatibility across different devices and platforms.
 3. Check for any technical issues, such as glitches or synchronization problems.
- b. Content Relevance and Accuracy:
 1. Ensure the video aligns with the intended message and marketing goals.
 2. Verify the accuracy of information presented in the video.
 3. Confirm that the content resonates with the target audience and addresses their needs.
- c. Audience Feedback and Focus Groups:
 1. Conduct focus groups or gather feedback from a sample of the target audience.
 2. Analyze audience reactions, preferences, and perceptions.
 3. Use feedback to make necessary adjustments to improve the video's appeal.

3. RESULTS AND DISCUSSION

These results and discussion include video creation tools, video production result, and task completion testing.

3.1 Video Creation Tools

3.1.1 Hardware Requirements

- a. Computer
Processor with a powerful multi-core processor (e.g., Intel Core i7 or AMD Ryzen) for efficient video rendering and editing, RAM minimum of 16GB RAM is recommended for smooth video editing processes, GPU dedicated graphics card can significantly accelerate video rendering tasks (e.g., NVIDIA GeForce or AMD Radeon), and storage fast and spacious SSD is preferable for storing video files and speeding up data access during editing.
- b. Camera and Recording Equipments
Camera depending on the nature of the video, a high-resolution camera (DSLR or mirrorless) capable of shooting in different lighting conditions, Tripod for stabilization, and lighting for video brightness.

3.1.2 Software Requirements

- a. Video Editing Software
Adobe Premiere Pro, a professional video editing software with advanced features for editing, color correction, and audio processing.
- b. Stock Footage and Images:
Shutterstock, Adobe Stock, or Pexels: Platforms offering a vast library of stock footage, images, and music to enhance video.
- c. Audio Editing:
Audacity, a free, open-source software for recording and editing audio, useful for ensuring high-quality sound in videos.
- d. Text and Typography:
Biteable, an online tool for creating promotional videos with customizable text and templates.
- e. Video Hosting and Distribution:
YouTube, a widely-used platform for hosting and sharing promotional videos.
- f. Scriptwriting
Celtx, a comprehensive scriptwriting tool that allows for collaborative writing and pre-production planning.

3.2 Video Production Result

The video is separated into 6 scenes which can be seen in table 3.

Table 3. Video Scene Development

Scene ID	Scene Name	Shoot Techniques	Duration
SC-01	Shows market conditions	Wide shoot/ very wide shoot, camera Stady	5 second
SC-02	Shows market conditions	Wide shoot/ medium close up, camera B-Roll	10 second
SC-03	How to cut ingredients	Close up, camera B-Roll	5 second
SC-04	Open the steamer	Close up, B-Roll	5 second
SC-05	Arrange tahu bakso on plates	Medium close up, camera Zoom Out	5 second
SC-06	Eat tahu bakso	Medium shoot, camera Stady	10 second

The Tahu Bakso Mak Cito’s promotional video can be accessed on Sistem Informasi 2020 YouTube channel with the link <https://www.youtube.com/watch?v=07yLylIaw8A>. The following in figure 4, you can see a screenshot of the promotional video.

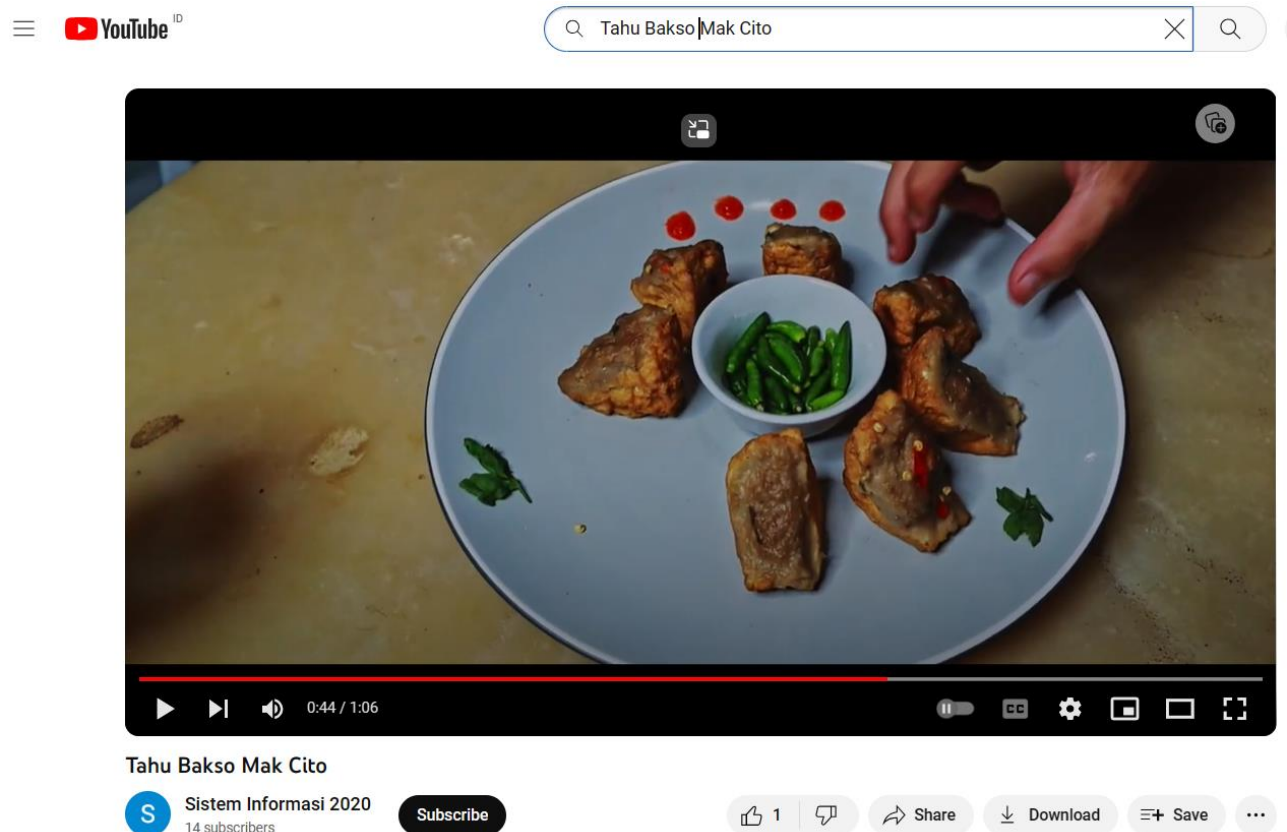


Figure 4. Promotional Video Tahu Bakso Mak Cito

3.3 Task Completion Testing

Making promotional video Tahu Bakso Mak Cito is divided into several tasks which can be seen in table 4.

Table 4. Task Completion Status

Task ID	Task Name	Point	Status
TC-01	Submit a proposal	10	Done
TC-02	Equipment preparation	15	Done
TC-03	Shooting Video	35	Done
TC-04	Editing Video	35	Done
TC-05	Production Video	10	Done
TC-06	Creating Report	10	Done
Total Point		115	

The evaluation techniques used in measuring the task completion are Velocity and Burn-down Chart.

a. Velocity

Velocity is the average number of story points that need to be completed for each week which can be calculated using a formula:

$$v = \frac{\text{number of points}}{\text{number of weeks}} \tag{1}$$

From the results of these calculations, it can be concluded that the ideal velocity or number of points that need to be completed every week is $125 \text{ points} / 6 \text{ weeks} = 20,8$.

The actualization of story point completion can be seen in table 5.

Table 5. Point Completion Activity

Week	Task ID	Ideal Point Completion	Actual Point Completion	Time	Velocity
Week 01	TC-01	19	10	7 days	-9
Week 02	TC-02	19	15	7 days	-4
Week 03	TC-03	19	35	2 days	+16
	TC-04		17	5 days	-2
Week 04	TC-04	19	18	7 days	-1
Week 05	TC-05	19	10	7 days	-9
Week 06	TC-06	19	10	7 days	-9

b. Burn-down Chart

The burndown chart shows how many points are left on the project. Burndown charts are used to see whether a project is on target, ahead or lagging behind. In the burndown chart graph, the y line shows the number of points, while the x line shows the time which can be seen in figure 7.

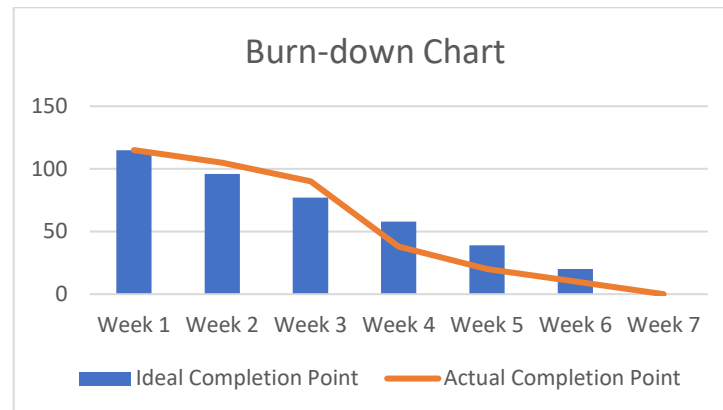


Figure 7. Burn-down Chart Task Completion

From the results of the velocity calculation, ideally the story points should be completed evenly at 20 points every week, but in the burn-down chart it can be seen that in the 3rd week the points completed were too high with total 52 points, so that in the following weeks the task work was reduced.

4. CONCLUSION

From this community service activity, it can be concluded that the making the promotional video of Tahu Bakso Mak Cito has been successfully carried out and is running well from pre-production, production, to post-production. In this digital era of information technology, Tahu Bakso Mak Cito can continue to develop their promotional activities, not limited to certain areas, but can be accessed anytime and anywhere via video platforms such as YouTube. This community service activity also received a positive response directly from the owner of Tahu Bakso Mak Cito, Mr. Faiz Himawan.

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