

## Comparative Analysis of Startup Valuation Using the Dave Berkus Method and Scorecard Method in a Case Study of Pesona Plastic

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**Abstract.** This study aims to compare startup valuation results using The Dave Berkus Method and the Scorecard Method on Pesona Plastic, an early-stage social and environmental startup engaged in plastic waste recycling into furniture products in Bali. The research applies a qualitative descriptive approach with data collection through observation, semi-structured interviews, and documentation. The valuation results show that The Dave Berkus Method produces a higher valuation of IDR 3,900,000,000 compared to the Scorecard Method, which yields IDR 3,170,700,000. The difference is mainly caused by variations in assessment focus, where The Dave Berkus Method emphasizes non-financial and internal potential factors such as business ideas, prototypes, team quality, strategic relationships, and early market acceptance. In contrast, the Scorecard Method relies more on market comparisons and industry benchmarks, which are limited for early-stage startups. Considering the development stage and characteristics of Pesona Plastic, The Dave Berkus Method is considered more relevant and representative for valuing the startup. This study contributes to startup valuation literature by providing empirical evidence on the suitability of valuation methods for early-stage social and environmental startups..

**Keywords:** Early-Stage Startup; Pesona Plastic; Scorecard Method; Startup Valuation; The Dave Berkus Method.

### 1. INTRODUCTION

The development of startups in Indonesia continues to show an increase, especially in the social and environmental sectors that offer solutions to ecological problems(Widhiantari et al., 2020) (Loebiantoro & Listiawan, 2020). One of the most pressing issues is the high volume of plastic waste that is difficult to decompose and has a serious impact on the environment. This condition encourages the emergence of various *sustainability-driven startups* that focus on creating economic value while providing positive social and environmental impacts(Akkaya, 2020)(Orlando, 2022). Pesona Plastic is one of the startups engaged in the recycling of plastic into furniture products, and is in the early stages of development so it requires an accurate valuation assessment to support business planning and potential funding in the future.(Ayu Ariastini et al., 2022)(Kasnaya et al., 2024)

Research on startup valuation has been done extensively, especially in technology-based and commercial businesses. Previous studies, such as those conducted by(Pramarani et al., 2024), have emphasized more financial-based valuation or using a single valuation method without comparing the advantages and limitations of each approach(Aparecido Maciel da Silva et al., 2024)(Akdağ, 2017). Other research focuses on tech startups that have more stable financial data, so they are not entirely relevant for social and environmental startups that are still in their early stages. On the other hand, valuation methods such as *The Dave Berkus*

*Method* and the *Scorecard Method* are known to be more suitable for early-stage startups because they assess non-financial factors and growth potential(Nanjundaiah, 2023). However, there are still few studies that conduct a comparative analysis of these two methods on social startups based on plastic recycling(Köseoğlu & Patterson, 2023)(Agung et al., 2024).

The research *gap* arises because there is no study that compares the two valuation methods in depth in the context of social and environmental startups in Indonesia, especially those engaged in the recycling sector(Artani et al., 2019)(Moro-Visconti, 2024). In addition, previous research has not identified the factors that cause differences in valuation results between methods, even though it is important to determine the most relevant methods used by investors and founders(Apriyanti et al., 2022). Therefore, this research was conducted to answer the need for an appropriate, comprehensive, and appropriate valuation assessment approach in accordance with the characteristics of Pesona Plastic as an environmental impact-based startup.(Babu et al., 2023)(Ayu Ariastini et al., 2022)

### Problems

Based on the problems in the background, the formulation of the problems that will be studied in this study is:

- a. How is the valuation result of the startup Pesona Plastic different when using The Dave Berkus Method and the Scorecard Method?
- b. What are the factors that affect the difference in valuation results between the two methods?
- c. Which valuation method is most suitable to use in assessing the valuation of a Pesona Plastic startup based on the business characteristics and stage of the startup's development?

### Purpose

Referring to the problems and research questions that have been described, this study aims to:

- a. Analyze and compare the valuation results of the startup Pesona Plastic using The Dave Berkus Method and Scorecard Method.
- b. Identify the factors that affect the difference in valuation results between the two methods.

Determine a more appropriate valuation method to be used in assessing Pesona Plastic startups based on business characteristics and startup development stages.

## 2. RESEARCH METHOD

## **Data Collection and Data Processing Methods**

Data for the comparative analysis of The Dave Berkus method and the Scorecard Method were collected through various techniques relevant to the valuation assessment of Pesona Plastic. The information obtained is then processed in a structured manner to support the assessment of non-financial factors and produce a comprehensive valuation. The steps in data collection are:

- a. Observation was carried out by directly observing the operational processes, production, division of tasks, and internal communication of the Pesona Plastic team. Information from observations is used to assess the actual condition of startups and becomes the basis for factor assessment in the Berkus and Scorecard methods.
- b. Interviews were conducted with founders/CEOs and team members to obtain information about business ideas, vision-mission, products, strategic relationships, team roles, and work dynamics. This data is used to validate the results of observations and strengthen the assessment of each valuation factor.
- c. Documentation is obtained from journals, books, research reports, as well as internal documents such as sales data and startup profiles. This technique is used to strengthen the theoretical foundation and support the valuation analysis process.

## **Data Type**

In this study, there are types of data that will be used in data analysis to be able to assess the valuation of *Pesona Plastic Startup Startups*:

- a. Quantitative data is data that can be measured or calculated directly as a numerical or numerical variable. A statistical variable is an attribute, characteristic, or measure that describes a case or research topic.
- b. Qualitative data was obtained through interviews with the founder and management team of Pesona Plastic to dig up information about the company's profile.

## **Data Source**

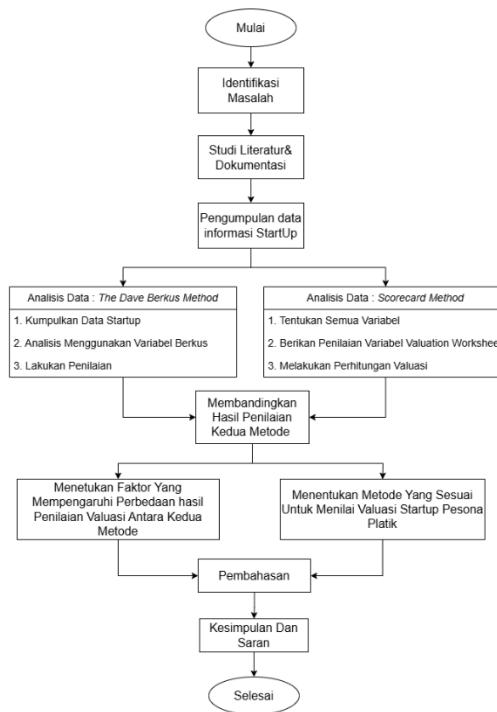
Based on the type of data used in the study, there are also data sources used in the implementation of this research as follows:

- a. Primary data was obtained directly through interviews with related parties at Pesona Plastic to obtain information regarding the vision, mission, organizational structure, and other important aspects that support the research.
- b. Secondary data was obtained from Pesona Plastic's company profile, website, and social media, as well as various literature such as books, articles, and journals that discuss The

Dave Berkus and Scorecard methods. Comparative data from similar startups is also used to support valuation analysis with the Scorecard method.

### Place and Time of Research

The place where this case study was carried out was at Pesona Plastic which is located at Gg. Bima No.2, Batubulan, Kec



**Figure 1.** Research Flow

## 3. RESULTS AND DISCUSSION

### Analysis of The Dave Berkus Method

In this stage, an analysis of The Dave Berkus' method was carried out to assess the valuation of the startup Pesona Plastic. This method refers to five main elements that will be assessed, namely:

### The Dave Berkus Valuation Results

In this study, each aspect that is assessed will be given a score, then multiplied by the predetermined weight, and the results are added together to obtain a total score. The aspects used in this study refer to the method of The dave berkus which consists of five main aspects, namely this study refers to the method of The dave berkus which consists of five main aspects, namely:

5 Aspek The Dave Berkus	
Id Suara	40%
Prototype	20%
Tim Manajemen	20%
Hubungan Strategis	10%
Peluncuran Produk	10%

**Figure 2.** Aspect The Dave Berkus

Based on the valuation in this study, the following is the number of scores obtained in each aspect, namely:

Elemen Penilaian	Acuan Penilaian Startup	Rentang Nilai	Nilai		
Sound Idea	Be yang diusung oleh Pesona Plastic dihla sangat inovatif karena berfokus pada pem anekaan limbah plastik di Bali menjadi produk furniture fungsional dan bernilai jual. Konsep ini tidak hanya mem berikan solusi nyata terhadap pem asahan lingkungan akibat penumpukan sampah plastik, tetapi juga sejalan dengan tren ekonomi sirkular dan keberlanjutan yang tengah berkenan bang. Dovasi ini menunjukkan potensi besar untuk mendapatkan dukungan masyarakat serta masyarakat pasar yang semakin peduli terhadap produk ramah lingkungan.	0 - Rp7.500.000.000	Rp Rp7.500.000.000 x 7/10 x 40% = Rp2.100.000.000		
Prototype	Hasil produksi yang dihasilkan produk furniture yang	0 - Rp7.500.000.000	Rp Rp7.500.000.000 x 5/10 x 20% = Rp750.000.000		
Team Management	Pesona Plastic mem iliki tim yang masih terbatas dan belum mem iliki pem bagian pbedek yang jelas. Staf dan pegawai kerap mengerjakan tugas di luar tanggung jawab utama, menunjukkan organisasi tm yang belum terstruktur dan mem butuhkan peningkatan manajemn serta kejelasan peran.	0 - Rp7.500.000.000	Rp Rp7.500.000.000 x 3/10 x 20% = Rp450.000.000		

**Figure 3.** the Number of Points Obtained in each Aspect

With the result of a pre-money valuation value of IDR 3,900,000,000. This valuation value is also the basis for an investor to provide investment to the company by paying attention to every aspect of The Dave Berkus Method.

## Scorecard Method Analysis

NO	Weighting	Faktor and issues	Impact	Score	Total Score/Jumlah Indikator	Weighting	Factor
<b>1.</b>							
<b>Strength Of The Entrepreneur and Management Team</b>							
<b>Experience</b>							
Many years of business experience	+		5	(5+4+7+7) : 4 = 5,75	5,75 x 30%	1,725	
Experience in this business sector	++						
Experience as a CEO	+++						
Experience as a COO, CTO, CFO	++						
Experience as a product	+						
Experience in sales or technology	-						
no business experience	---						
<b>Willing to step aside, if necessary, for an experienced CEO</b>							
Unwilling	----						
Neutral	0	4					
Willing	+++						
<b>Is the founder coachable</b>							
Yes	+++	7					
No	---						
<b>How complete is the management team</b>							
Entrepreneur only	-						
One competent player in Team	0						
Team identified and on the sidelines	+						
Competent team in place	+++	7					
<b>4.</b>							
<b>Competitive Environment Strength Of The Competitors In This Marketplace</b>							
<b>Strength of The Competitors in This Marketplace</b>							
Dominated by a single large player	--				(3+7) : 2 = 5	5 x 10%	0,5
Dominated by a several player	-		3				
Fractured, many small players	++						
<b>Strength of The Competitive Product</b>							
Competitive product are excellent	--						
Competitive product are weak	+++	7					
<b>5.</b>							
<b>Marketing, Sales, Partners</b>							
<b>Sales Channels, Sales and Marketing Partners</b>							
Haven't even discussed sales channels	---				6	6 x 10%	0,6
Key beta testers identified and contacted	++						
Channels secure, customers placed trial orders	+++						
No partners identified	--						
Key Partner in place	++	6					
<b>6.</b>							
<b>Other Need for additional rounds of funding</b>							
None	+++				(4+6) : 2 = 5	5 x 10%	0,5
Another Angel Round	0	4					
Another Venture Capital	--						
<b>Other Factors</b>							
Positive Other factors	++	6					
Negative other factors	--						
<b>Extension SUM</b>							
							4,68

Figure 4. Scorecard Method Analysis

However, in this study, no value of startup valuation similar to Pesona Plastic has been found. Therefore, the valuation calculation of this type of startup uses the *valuation by stage approach*:

Estimasi	Stage of Development
Rp 25.000.000 – Rp 50.000.000	Memiliki ide bisnis atau rencana bisnis yang menarik
Rp 50.000.000 – Rp 100.000.000	Memiliki manajemen tim yang kuat untuk melaksanakan rencana
Rp 100.000.000 – Rp 200.000.000	Memiliki produk atau Prototype
Rp 200.000.000 – Rp 500.000.000	Memiliki partner strategis, atau tanda-tanda basis pelanggan.
> Rp 500.000.000	Memiliki tanda-tanda pertumbuhan pendapatan dan jalur profitabilitas yang jelas

Figure 5. the Valuation Calculation uses the Valuation by stage Approach

The next step is to calculate the average valuation of similar companies. Where the author gets several similar companies that match the assessment criteria in the Scorecard Method to find similar companies, namely:

Perusahaan Sejenis Recycle Sampah Plastic	Estimasi Valuasi Menggunakan Pendekatan Valuation By Stage
Nyampah.Bali	Rp 620.000.000,00
Bumbershootzbali	Rp 735.000.000,00
Rata-rata Nilai Valuasi	Rp 677.500.000,00

**Figure 6.** Criteria in the Scorecard Method to find Similar Companies**Non-Financial Valuation Value with the Scorecard Method**

After getting the average score of the same company, the last step is to calculate the average value of the same company and the SUM extension from the *Scorecard calculation*.

<b>Nilai Valuasi</b> = <b>Nilai</b> Rata-rata perusahaan sejenis $\times$ <i>Extension</i> <b>SUM</b>	<b>Nilai Valuasi</b> = Rp677.500.000,00 $\times$ 4,68 <b>Nilai Valuasi</b> = Rp3.170.700.000,00
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**Figure 7.** Calculating the Average Value of Comparable Companies**Comparison of the Valuation Value of Startup Pesona Plastic Using The Dave Berkus Method and Scorecard Method****Table 1.** Comparison of the Valuation Value Using The Dave Berkus Method and Scorecard Method

The Dave Berkus Method	Scorecard Method
The results of the valuation analysis using <i>The Dave Berkus Method</i> method at Pesona Plastic are IDR 3,900,000,000.00	The results of the valuation analysis using <i>the Scorecard Method</i> method at Pesona Plastic are IDR 3,170,700,000.00

Based on the results of the analysis, the valuation of Pesona Plastic using *The Dave Berkus Method* resulted in a value of IDR 3,900,000,000.00, while *the Scorecard Method* generated IDR 3,170,700,000.00. This shows that the Berkus method provides a higher valuation than the Scorecard. The difference in values is caused by differences in approaches and assessment indicators in each method. Thus, the selection of valuation methods needs to be adjusted to the characteristics and business conditions of the startup being analyzed so that the results are more precise and reflect the actual situation.

## Factors Affecting the Difference in Results of the Two Methods

Here are some of the factors that cause the difference in valuation results between *The Dave Berkus Method* and *the Scorecard Method*:

- a. Differences in Assessment Orientation Berkus assesses future potentials (ideas, prototypes, teams, strategic relationships), while Scorecards assess based on existing market comparators. As a result, Berkus tends to generate higher valuations.
- b. Emphasis on Startup Internal Factors Berkus gives great weight to internal aspects that are the strength of Pesona Plastic, such as innovative ideas, working prototypes, solid teams, and strategic relationships. This makes Berkus' valuation results more optimistic.
- c. Scorecard's Dependence on Comparative Data, Scorecard requires similar startup valuation data. Because the social-based plastic recycling industry still lacks relevant comparative data, the Scorecard value is lower and conservative.
- d. Startup Development Stage Still Early-Stage, Pesona Plastic is still in the early stages with unstable income and the market is still validated. This condition is less ideal for Scorecards that judge based on more mature performance, resulting in lower valuations.
- e. Differences in Assessment Weights of Each Method Berkus uses fixed weights that focus on potential, while Scorecards assess aspects such as teams, market opportunities, competition, and funding needs. If one is rated low, the Scorecard value drops significantly.
- f. Scorecard Does Not Measure Social-Environmental Impact Pesona Plastic has a large social and environmental impact, but this factor is not assessed in the Scorecard. Berkus is able to capture this value through the assessment of market ideas and opportunities, so that the results better reflect the true value of the startup.

## Recommended Methods For Plastic Charm

Based on the results of a comparative analysis of valuation using *The Dave Berkus Method* and *the Scorecard Method* on the startup Pesona Plastic, it was found that the Berkus method produced a valuation of IDR 3,900,000,000.00, while the Scorecard produced IDR 3,170,700,000.00. This difference in scores occurs because both methods have different scoring focuses. The Dave Berkus Method focuses on non-financial factors and the internal potential of startups, such as the strength of ideas, prototype quality, team capabilities, strategic relationships, and initial market response. On the other hand, the Scorecard Method relies on market comparators from similar startups that are more mature, so it is not suitable for startups that are still in the early stages.

Considering the condition of Pesona Plastic which is still in the early-stage phase, does not have a stable financial track record, and is still in the process of market validation, The Dave Berkus Method is the most relevant method. This method is better able to capture the growth potential of Pesona Plastic as a social-environmental startup that offers innovation in plastic waste management. This result is in line with the view of Damodaran (2012) who stated that early-stage startup valuation is more appropriate to use a potential-based approach and non-financial factors compared to market comparators. Therefore, The Dave Berkus Method is recommended as the most appropriate method to describe the fair value of Pesona Plastic at its current stage of development.

#### 4. CONCLUSION

This research shows that the valuation of early-stage startups cannot rely solely on financial indicators, but needs to consider non-financial factors such as the strength of the idea, product quality, team competence, strategic relationships, and market response that reflect growth potential. The results of the analysis show that the valuation of Pesona Plastic using *The Dave Berkus Method* reached IDR 3,900,000,000.00, while *the Scorecard Method* produced IDR 3,170,700,000.00, with a difference of IDR 729,300,000.00 due to the difference in the focus of the assessment of the two methods. Berkus focuses on qualitative assessment and future potential, while Scorecard relies on comparative data from similar startups that are more mature. Considering that Pesona Plastic is still in its early stages and does not yet have a strong financial track record, the Berkus method is considered the most relevant because it is better able to capture the value of innovation, growth opportunities, and socio-environmental impact that are the main characteristics of this startup.

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