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Infrastructure Spin-Off Decision in the Telecommunication Company: Project Valuation and AHP Analysis

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ABSTRACT: The telecommunication industry faced a negative headwind due to the emergence of OTT (over the top) services, resulting in lower service prices, limited network-based services, and increased network capex. This led to a scissor effect, with significant growth in capex and stagnant revenue growth. To address this, European operators spun off the service telecommunication company (ServCo) and the telecommunications network provider company (InfraCo, NetCo, and FiberCo), a strategy in the consolidation of the telecommunications industry. One of leading Telco Company in South East Asia currently conducting a diversification strategy review to encourage growth by leveraging its market leadership in the FTTH (Fiber to the Home) business.

This study calculates the business potential and valuation of each potential scenario implemented by Telco Company using DCF and conducts a decision analysis using the AHP method to determine the most appropriate scenario. After calculating the projections and valuation, the authors conduct interviews with experts to weigh each criteria required and targeted by ServCo for analysis using AHP.

KEYWORDS: Spin-off, DCF, AHP

I. INTRODUCTION

The global OTT (Over the Top) trend has led to a decline in telco profitability due to exponential traffic growth and higher capex requirements. This has led to a scissor effect, where capex increases and revenue stagnates, making the industry a "dumb pipe network." In general, each telco operator has its own network, making network deployment high and maintaining it challenging. One solution is network sharing between operators, known as consolidation in the telco industry.

This Telco Company (ServCo) has a market capitalization about $24,7 Billion as of 2022, but has been assigned a target of $33,2 Billion by 2025. To achieve this, the company has planned several bold moves strategies, including unlocking Fiber Infrastructure Business (FiberCo). One strategy is the Carve-out Fiber Infrastructure Company (FiberCo), which is expected to add 665 to 997 million Dollars to ServCo market capitalization.

II. METHODOLOGY

This research aims to evaluate the value of FiberCo and its related asset and wholesale scenarios to estimate the company's value and uplift value. The research will use quantitative method on financial projections and valuation using DCF methods, and AHP methods to choose the most suitable scenario for FiberCo Carve-Out strategy.

Data collection methods include secondary and primary sources, including audited financial and annual reports, historical stock prices, credible journals, and interviews with experts. The research will also involve conducting valuations and analyzing the most suitable scenarios, including classification of historical data, calculation of Free Cash Flow, valuation of company, value uplift, collecting ideal criteria, weighting each criteria, and performing AHP calculations.

III. RESULTS

A. DCF Calculation

The DCF Calculation for ServCo is based on the projected P&L for the valuation of the company, which is projected by 2023 to be 24,7 Billion Dollars. This valuation will serve as the basis for the calculation of uplift value from the FiberCo project.

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To calculate the Weighted Average Cost of Capital (WACC), we use the following formula:

$$WACC = \frac{Equity}{Asset} * CoE + \frac{Debt}{Asset} * CoD * (1 - Tax)$$

Cost of Equity (CoE) = RFRR + β*MRR

$$CoE = 15{,}43\%$$

Where,

- RFRR = 5,75%, Central Bank Interest Rate, June 2023
- Beta Stock as reference = 1,049, from Pefindo 22 June 2023
- MRR = 9,23%, assumed using Equity Risk Premium Damodaran on one of south east asia country

Cost of Debt (CoD) = averaging top 10 banks based on prime lending rates for corporate. The cost off debt is 8, 2%.
The calculated WACC = 11, 3%.

1. Scenario A

Valuation for Scenario A would involves whole asset transfer of ServeCo's network assets to FiberCo.
Business Model for scenario A

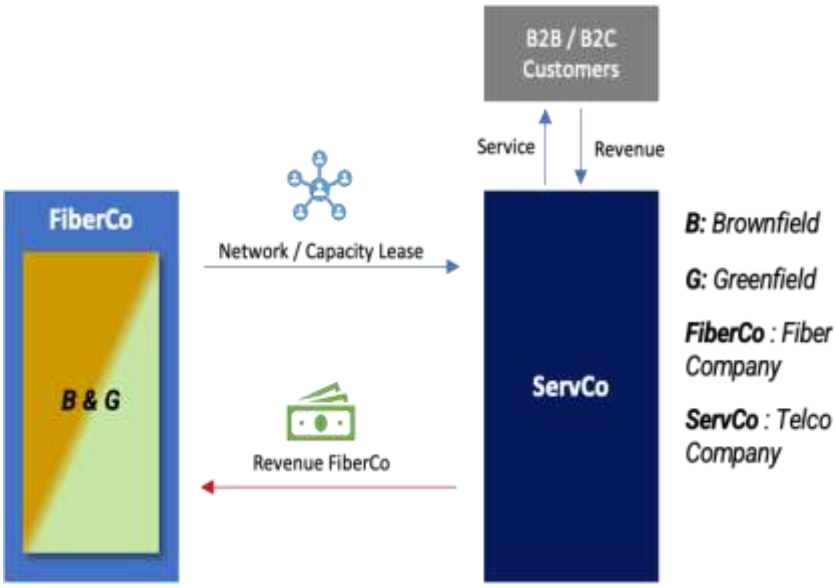

Figure 1. Business Model Scenario A
Source: Author Analysis

For P&L Scenario A see Appendix A, The WACC calculation for scenario A follows the equation below:

Table 1. Resume Calculation Scenario A

FiberCo WACC	11,3%
FiberCo Terminal Growth	2%
Equity Proportion	54%
Debt proportion	46%
Cost of Equity	15,43%
Cost of Debt	8,20%

Source: Author Analysis

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Using WACC above and DCF method the Enterprise Value of Scenario A is $4.261 Million US Dollars, and uplift value of scenario A is around $1.889 Million US Dollars.

2. Scenario B

In scenario B, there is no asset transferred to FiberCo, so the proportion of capital will be heavy on equity rather than debt. The cost of debt and cost of equity will be used the same value as calculated in previous section. For projected P&L Scenario B see Appendix B.

Business Model for Scenario B

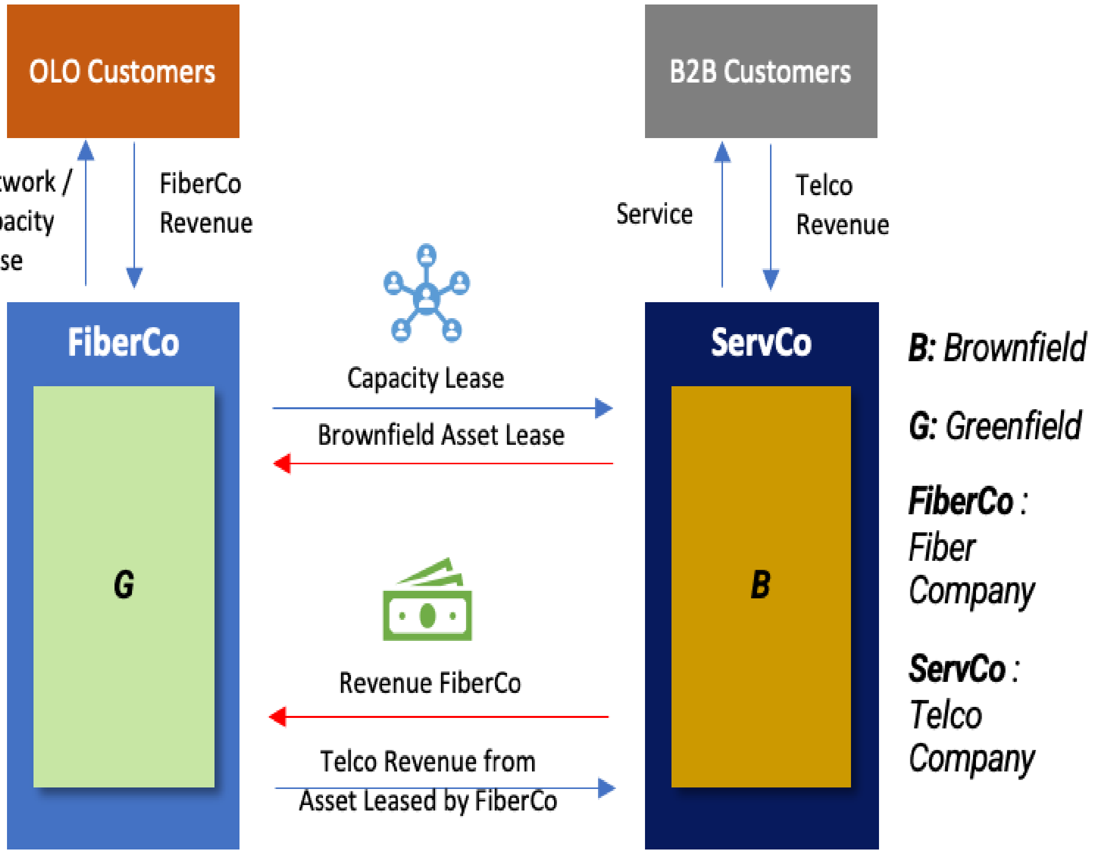

Figure 2. Business Model Scenario B
Source: Author Analysis

Table 2. Resume Calculation Scenario B

FiberCo WACC	14,98%
FiberCo Terminal Growth	2%
Equity Proportion	95%
Debt proportion	5%
Cost of Equity	15,43%
Cost of Debt	8,20%

Source: Author Analysis

Using DCF and WACC above, Scenario B is estimated to be worth approximately $727 Million US Dollars, the group equity uplift value will be $322 Million US Dollars.

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3. Scenario C

Valuation Scenario C involves an asset transfer to FiberCo, which will result in a different calculation of WACC. The proportion of capital will be 80% from equity and 20% from debt to finance the capital expenditure for scenario C.

Business Model for Scenario C

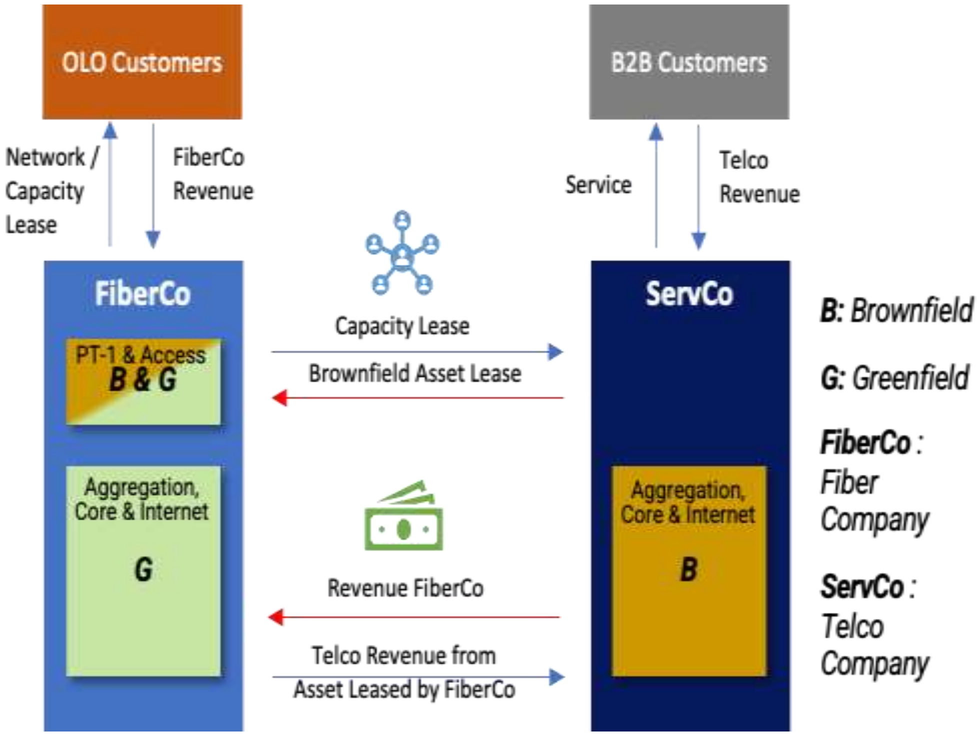

Figure 3. Business Model Scenario C
Source: Author Analysis

For detailed P&L scenario C see Appendix C, with the same cost of equity and cost of debt as in the previous section, the calculation of WACC follows.

Table 3. Resume Calculation Scenario C

FiberCo WACC	13,62%
FiberCo Terminal Growth	2%
Equity Proportion	80%
Debt proportion	20%
Cost of Equity	15,43%
Cost of Debt	8,20%

Source: Author Analysis

Using DCF and WACC above, Valuation of the Enterprise value for Scenario C is considered around $1.632 Million US Dollars, the scenario C will generate value uplift to the group around $ 723 Million US Dollars.

Ideal criteria for ServCo considering which scenario that should be implemented shown in the AHP Hierarcy Model is:

Table 4. Decision criteria for scenario selection

Criteria	Definition	Ideal Criteria
FiberCo Valuation	Valuation of FiberCo calculated in DCF	Higher Better
FiberCo Net Income (2024)	How much net income of FiberCo in 2024, based on projection	Net Income should be Positive
FiberCo Free Cash Flow (2024)	How much free cash flow generated to the FiberCo in 2024, based on projection	Free Cash Flow FiberCo Should be Positive
Group Equity Uplift	How much equity uplift gained from scenario's	Group Equity Uplift between $ 665 Mio to $997 Mio
% Asset Moved to FiberCo	How much current unconsolidated assets that moved to FiberCo	<50%

Source: Author Analysis

AHP Hierarcy Model for determining scenario of FiberCo

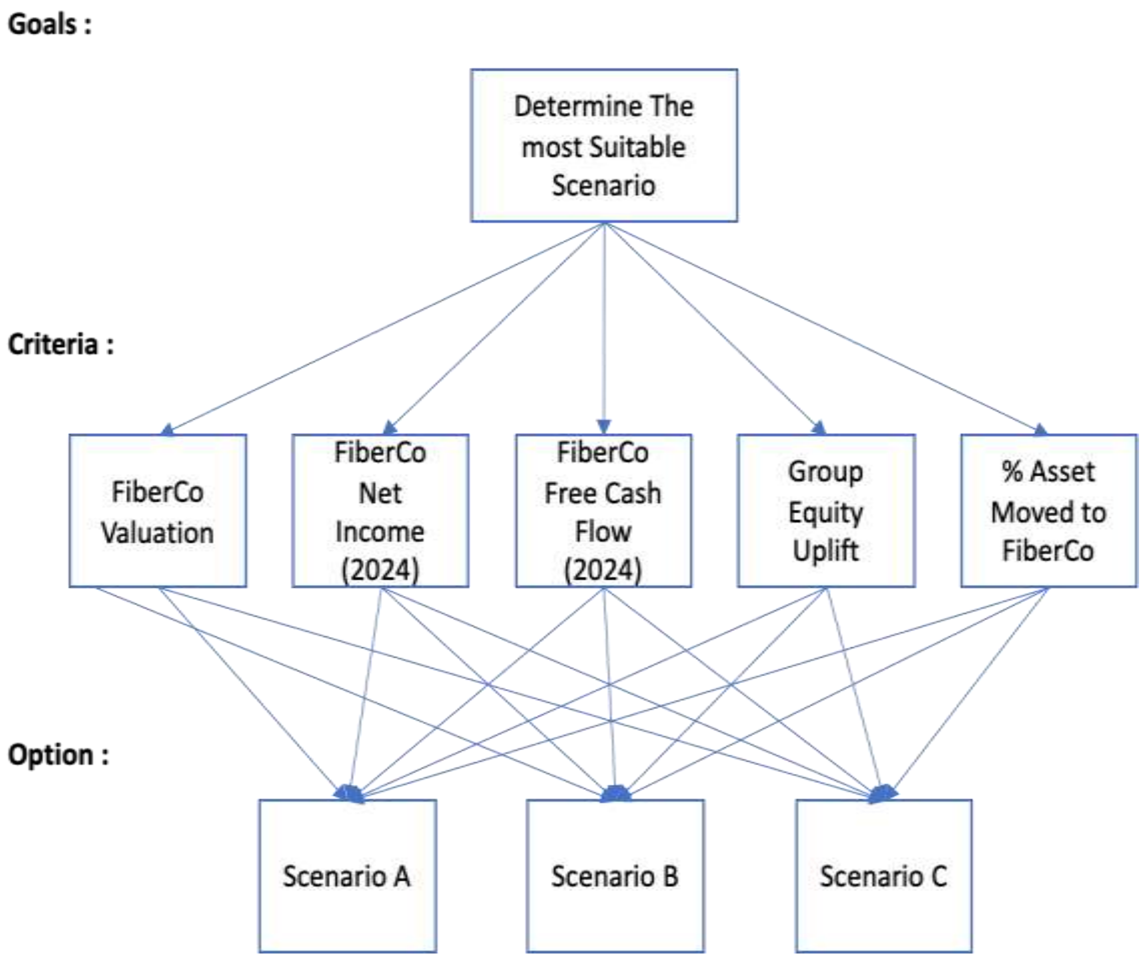

Figure 4. AHP hierarchy model

Source: Author Analysis

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Table 6. AHP weight on criteria from experts

Criteria	Weight
FiberCo Valuation	25,3%
FiberCo Net Income (2024)	17,9%
FiberCo Free Cash Flow (2024)	42,3%
Group Equity Uplift	11,1%
% Asset Moved to FiberCo	3,3%
Inconsistency Ratio	3,9%

Source: Author Analysis

After doing valuation on preferred scenario and weighting each criteria then doing calculation using AHP, with consistency rate of the expert is under 10%, the Author considered that the most suitable scenario for ServeCo is Scenario A.

B. References

The Free Cash Flow Valuation Model (DCF) is a method used to calculate the present value of future cash flows, which is the present value of a share of common stock. It is calculated using the discounted rate, or the cost of equity, to determine a firm's today's worth. The Analytical Hierarchy Process (AHP) is a powerful tool for deciding options on multiple criteria decision-making. It is designed to work with both rational and intuitive decision-making, allowing for judgmental inconsistency.

The AHP hierarchy model is a hierarchical structure with three levels, with the top level being the choice's objective and the second and third levels being the criteria used to evaluate the options. The decision-maker defines the decision's purpose or objective, establishes criteria to further classify the goal, and creates choice alternatives. The next crucial step involves experts contributing their individual expertise judgments and specifying parameter ranges.

The weighting importance of AHP is based on the intensity of importance, with equal importance, weak importance, essential or strong improvement, very strong or demonstrated importance, and absolute importance. The number of respondents involved in the pairwise comparison process has no minimum requirement, unlike statistic theory, as the weighted geometric mean of the decision matrices is used to calculate the data obtained using geometric tools.

The priorities are determined in the level directly below after calculating or weighting the data. The option in the lowest level should be given final priority after repeating this process of adding and weighting.

Netcos, a low-risk business focused on infrastructure wholesale, has attracted investors due to its growth opportunities, such as diversifying portfolios, leveraging 5G and fiber mass deployment, increasing geographic footprint, exploring new site construction or asset acquisition, higher asset utilization, open infrastructure to different operators, expanding wholesale customer base on fiber networks, access to cheaper capital, long-term contracts, predictable free cashflows, simplified operations, greater OPEX efficiency, and automation on top of standardized operations.

C. Recommendations

This research suggests that ServCo should conduct a spin-off immediately to achieve a targeted market capitalization. However, because of telco is a highly regulated company it will takes sometimes to get the approval from the government. To implement the spin-off scenario, ServCo should make their organization leaner and align with the targeted organization scenario. This will make the spin-off scenario easier to implement without compromising the quality of the network. Further market research and a detailed strategy plan are necessary to maximize value creation from FiberCo initiatives. Future research should validate projected profit and loss using the latest financial statement data and separate profit and loss from each product using ServCo CSS projection.

IV. DISCUSSION

The FiberCo corporate action is a reasonable way for ServCo to improve their position in the market, as slower market growth and higher capex demand for high-speed internet and communication are pushing ServCo to sell their excessive capacity to other operators. This arrangement would help ServCo focus on creating services rather than improving their network to fulfill market demands. A strategy is an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain a competitive advantage.

The FiberCo initiatives will give ServCo positive value by focusing on managing infrastructure and selling the capacity or network as a white label. Higher utilization of network capacity and optimal cost operational will drive ServCo value higher. However, the FiberCo initiatives could also have a negative impact on ServCo if they cannot sell their existing B2C products.

V. CONCLUSION

To maximize the group value impact, the strategy to implement FiberCo must be packed with places and condition FiberCo may share all the access and where they may hold ServCo competitive position. After modeling the business on three scenarios subjected to SteerCo and calculating the projected profit and loss on each scenario, the highest value of FiberCo is performed in Scenario A, followed by Scenario C and Scenario B.

The ideal scenario for ServCo is Scenario A, which consists of full layer of asset ownership and wholesaling, giving FiberCo flexibility to serve various OLO (Other Licensed Operator) and ISP (Internet Services Provider) related to FTTH access. The higher debt equity ratio will lower the WACC, impacting the company's value for the same free cash flow generated from the operation.

The Free Cash Flow to the Firm in 2024 for Scenario A is positive, better than Scenario B and Scenario C, which have negative numbers. The valuation on scenario A using DCF is $4.265 Million US Dollars, and the group equity uplift for scenario A is $1.889 Milllion US Dollars, more than the targeted value uplift between 665-997 Million US Dollar. Scenario C would achieve the targeted value uplift for ServCo, but the negative Free Cashflow ,which was the most weighted criteria by expert on Scenario C makes it impossible to implement.

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APPENDIX

Appendix Resume Scenario Calculation

Xx	Ideal
Xx	Potentially Meet Target
Xx	Doesn't Meet Target

		Scenario A	Scenario B	Scenario C	Ideal Criteria
		Full layers ownership & wholesaling	Greenfield only ownership, but full wholesaling	Brownfield access & all greenfield ownership, but full wholesaling	
FiberCo	Enterprise Value	~$4.265 Mio	~$727 Mio	~$1.632 Mio	
	NI (Margin) – 2024	$547 Mio (35,5%)	$511 Mio (33,1%)	$516 Mio (33,5%)	>0 NI & FCF
	FCF – 2024	$164 Mio	($128) Mio	($66) Mio	
Financial	Group Equity Uplift	$1.889 Mio	$322 Mio	$723 Mio	665-997 Mio
	% Asset Moved to FiberCo	55%-65%	-	30%-45%	<50%

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