Week-06-L-02

Value Engineering Agricultural Plan

Value Engineering Case Study

Case 1: Harvest Basket

Function & Creativity Phase

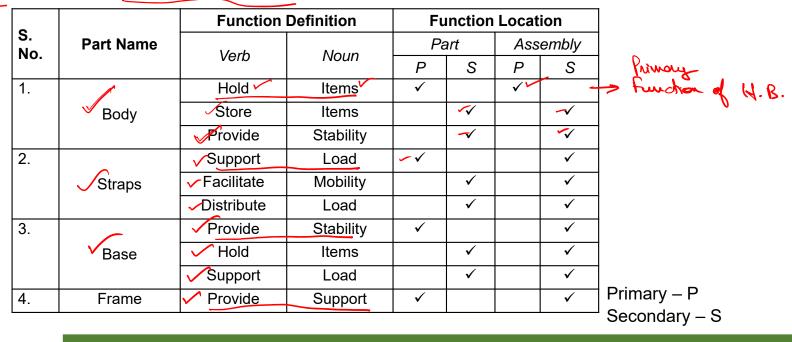
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Function Phase

- Harvest baskets play a crucial role in farming, and they serve several important functions for farmers during the harvesting process.
- These functions are designed to make the harvesting of crops, fruits, and vegetables more efficient and effective.



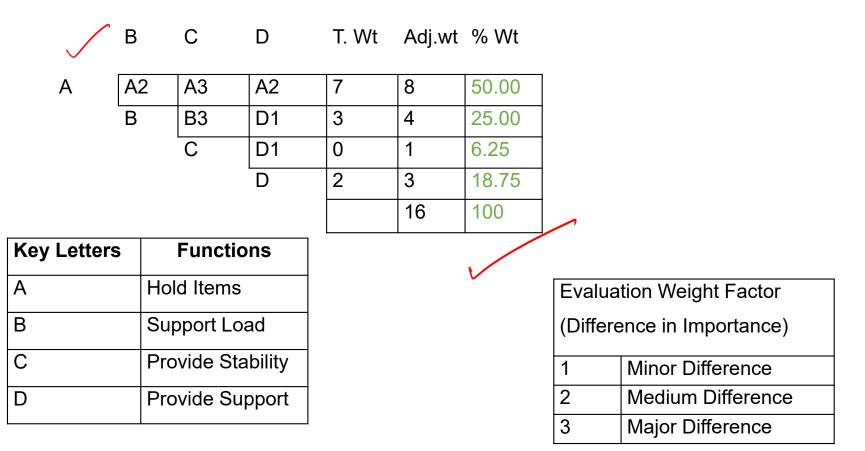


Numerical Evaluation of Functions

	В	С	D	T. Wt	Adj.wt	% Wt		
А	A2	. A3	A2	7	8	50	8/16 ×100 =50%	
	В	B3	D1	3	4	25		
		С	D1	O	1	6.25	5	
			D	2	3	18-75	5	
					16			
Key Letters Functions								
A / Hold Items					Evaluation Weight Factor (Difference in Importance)			
B / Support Load					`	· ,		
Cr	C / Provide Stability					1 Minor Difference		
y				2	Medium Difference			
D /	Provide Support				Γ	3	Major Difference	



Numerical Evaluation of Functions





S. No.	Part Name	Cost	Hold Items	Support Load	Provide Stability	Provide Support
			Α	В	С	D
1.	Body 🖌	600	500		1 <u>00</u>	
2.	Straps 👻	250		250		
3.	Base 🗸	150	25	25	100	
4.	Frame 🗸	100				100
	Total	1100	525	275	200	100



S. No.	Part Name	Cost	Hold Items	Support Load	Provide Stability	Provide Support	
			Α	В	С	D	
1.	Body	600	500		100		
2.	Straps	250		250			
3.	Base	150	25	25	100		
4.	Frame	100				100	
	Total	1100	525	275	200	100	100/1100 ×100 %
	%Cost		47.73	25	18.18	9.09 -	- 9.09
							- (



S. No.	Part Name	Cost	Hold Items	Support Load	Provide Stability	Provide Support
			Α	В	С	D
1.	Body	600	500		100	
2.	Straps	250		250		
3.	Base	150	25	25	100	
4.	Frame	100				100
	Total	1100	525	275	200	100
	%Cost		47.73	25	18.18	9.09
	% Weight		50.00	25.00	6.25	18.75



	S. No.	Part Name	Cost	Hold Items	Support Load	P <u>rovid</u> e Stability	Provide Support	
				Α	В	С	D	
	1.	Body	600	500		100		
	2.	Straps	250		250			
	3.	Base	150	25	25	100		
	4.	Frame	100				100	
		Total	1100	525	275	200	100	
Por	7	%Cost		47.73	25	18.18	9.09 -	(100/1100)*100 = 9.09%
P		% Weight		50.00	25.00	6.25	18.75	
		VIP Index		0.95	1.00	2.91	0.48	
		•					· · · · · · · · · · · · · · · · · · ·	

$$VIP \ Index = \frac{\% \ Cost}{\% \ Weight}$$



Creativity Phase

Creative Alternatives for Bamboo Harvest Basket:

- **Modular Compartments:** Design a customizable basket with modular compartments for different crops or farmer preferences.
- Foldable Baskets: Create baskets that can be folded or collapsed, enhancing storage and transport convenience.
- **Double Straps:** Improve comfort, efficiency, and safety with harvest baskets featuring double straps.
- **Cushions:** Enhance farmer comfort and protect produce with baskets equipped with cushions.
- Bamboo Treatments: Experiment with bamboo treatments like heat treatment, preservatives, or coatings to enhance durability.

Thank You

