

Feature SWOT Analysis

Features: Pros and Cons

Sr. No.	Feature	Description	Pros	Cons	Analysis (FAV/UNFAV)	Remarks
1	Small and Lightweight	The power bank should be lightweight and small in size	Mobility and less storage space is required	Battery capacity cannot be controlled Additional features will be difficult to implemnt	UNFAV	
2	Phone Holder	A way to get attached to the phone back or some sort of holder for your phone.	Mobility and is easier to hold Most of the powerbanks do not have this feature	It will be difficult to implement a holder which supports every phone model	FAV	As an accessory
3	Hand Strap	A strap can be added to fix the mobile with the power bank and then put on our arms or wrists so that we can use it while walking/jogging.	Mobility and is easier to carry around Most of the powerbanks do not have this feature	Makes it bulkier	FAV	As an accessory
4	Ergonomic Design	Should be ergonomic, shouldn't feel like a brick when holding it along with your phone.	Ergonomics, USP	Complex designing, Space Management	UNFAV	
5	Cable	Should have a small braided cable	Increased lifetime Increases the conductivity, thus increasing the overall power supply efficiency	Cannot be bent Can be quite expensive	FAV	Incase we use a vey good quality braided cable
6	Multi adapter capability	Multi adapter capability	Increases the usability Increases compatibility	Can me bulky Can make it a bit expensive to implement	FAV	As an accessory
7	Simultaneous Charge Support	Multi-device simultaneous charge support	It increases usability It saves time	It makes the PB bulkier	FAV	
8	Waterproof	Waterproof/splash or sweatproof	It will last longer	Hard Implementation	UNFAV	
				Expensive		
9	Efficient Battery	The battery must have a good size to performance ratio	Reduces Size	Expensive	FAV	TBD
			More power output			
10	Safety Features (Overcharging Protection/Temperature Monitoring)	The battery should have safety features like LVC and Overcharging protection, as well as a temperature sensor to measure the battery temperature when in use.	Good for safety	Expensive, Bulky	FAV	
11	Time-till-0 Display (App Feature)	Time left till 0% battery to be displayed on the app	Easy to implement		FAV	
12	Sleep Mode	Sleep mode to save power when not in use	Saves power	Hard to implement	FAV	
13	LCD/OLED Screen	A small LCD or an OLED screen should be added which displays the parameters like battery percentage, time left for the power bank to discharge, the current connection status as well as the temperature of the batteries.	When phone is out of charge, PB battery perc. can be seen	Bulkier, Hard to implement, Costlier	UNFAV	Make prototypes with and without
14	Battery Drainage	Alarm/ indicator to indicate how fast the battery is draining.		LEDs Expensive	UNFAV	TBD

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15	Wireless Charging	Could try wireless charging, because cables aren't really the preferred choice of minimalist travellers.	Fancy, Selling Point	Expensive, Hard to implement, Power losses, Device support	UNFAV	TBD
16	Fast Charging	Fast charging	Saves time	Difficult design, Compatibility, Certification	FAV	
17	Charging State (App Notification)	A small pop up notification on the phone about the power banks charging state after charging the phone fully with it.	Utility, Easy to implement	-	FAV	
18	Low Battery (App Notification)	Reminders on the phone when the power bank is drained	Utility, Easy to implement	-	FAV	
19	Flashlight (Accessory)	A flashlight should also be present which will be helpful at night or in a low light environment to connect the device which the user wants to charge.	-	-	FAV	As an accessory
20	Mini Fan (Accessory)	Mini fan as an accessory	-	-	FAV	As an accessory
21	Built-in Speaker	A good built-in speaker that can connect to your phone via Bluetooth.	Utility	Bulky cons., expensive, power cons.,	UNFAV	TBD
22	Latest Bluetooth Capabilities (Small Size)	The power bank should have a Bluetooth module that must be small in size, low power consumption and has the latest Bluetooth version.	Low power consumption	Expensive	FAV	TBD
23	Connected/Battery Percentage (App Notification)	After the connection via Bluetooth has been established to the mobile device, the module should send a message that it is connected and display the percentage on the notification itself in order to increase usability, making it a user interactive device.	Utility		FAV	
24	Anti-theft Alarm	Anti-theft alarming technology	Security	Hard to implement	UNFAV	
25	Bluetooth based Find-my-device (App Feature)	Find my device feature, so that the user can find the device if it's in the range through the app using data like distance and direction of the device with reference to the phone.	Convenience	Hard to implement	FAV	Depends on bl version
26	GPS Tracking	A GPS chip can be added. If lost can be tracked.	Safety (location)	Hard to implement, Bulky cons., Not accurate in closed space	UNFAV	
27	Inbulit Memory	A memory chip can be added that can be accessed via the app.	Local Data Storage	Extra Hardware, Costlier	UNFAV	Software implementation
28	Dust Resistant/Water Resistant	It should be dust and water-resistant.	Safety (location)	Hard to implement, Certification	UNFAV	

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29	Independent Amp Control	If the possible output of each port could be controlled individually like it can charge multiple devices at different amps(current) simultaneously.	Choice of Operation	Hard to implement	UNFAV	Two devices can be charged at regular speed or single device at fast charging
30	Mini Solar Panels (Inbuilt)	Mini solar panels on the sides of the power bank sustain and charge devices as much as possible even when off the grid.	Portable energy source	Bulky, Insufficient power, heating issues	UNFAV	
31	Multi-function button		Utility	Hardware Addition	FAV	TBD