

Business Models and Opportunities for Rice Straw Mushroom Production

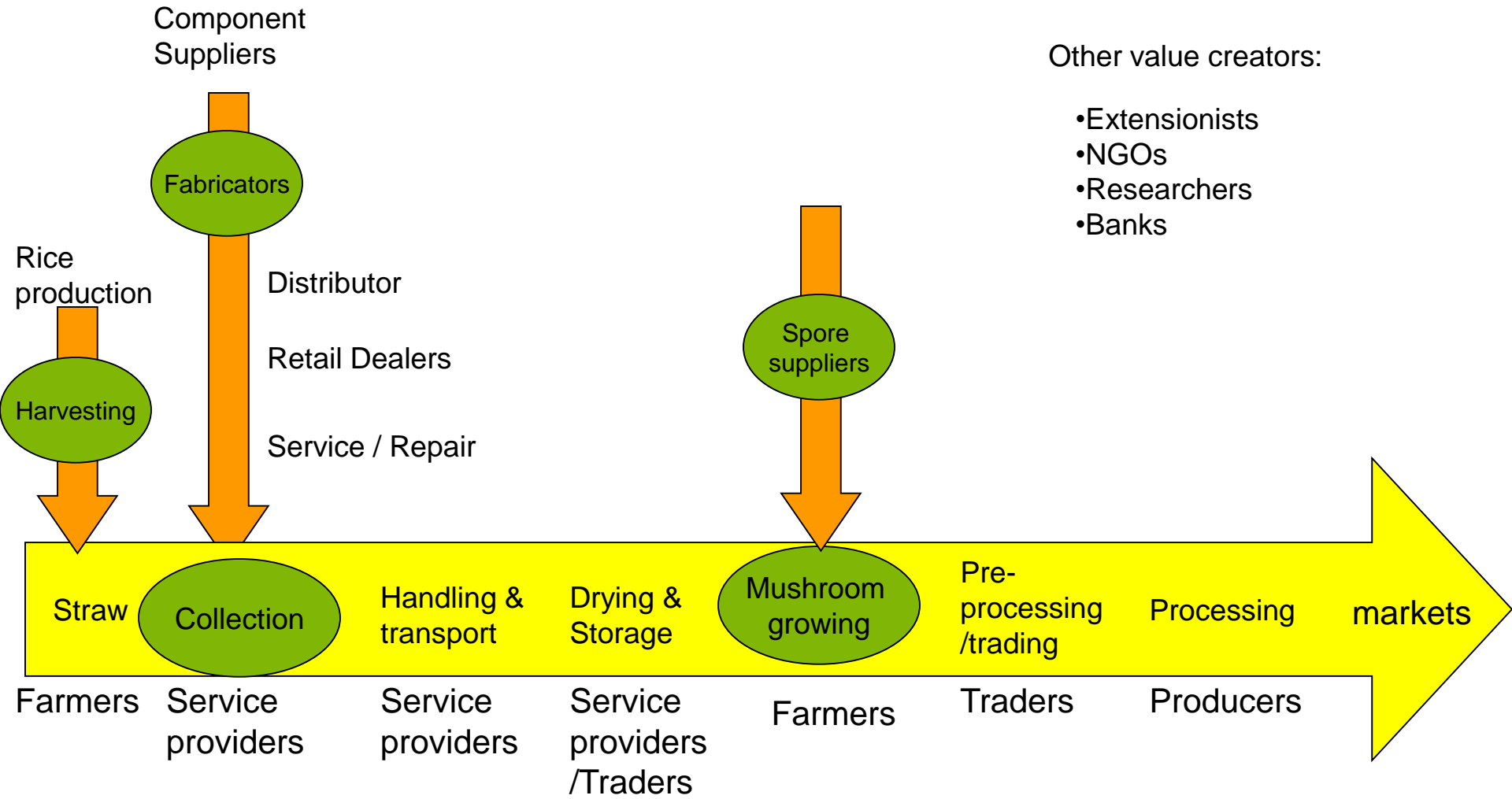


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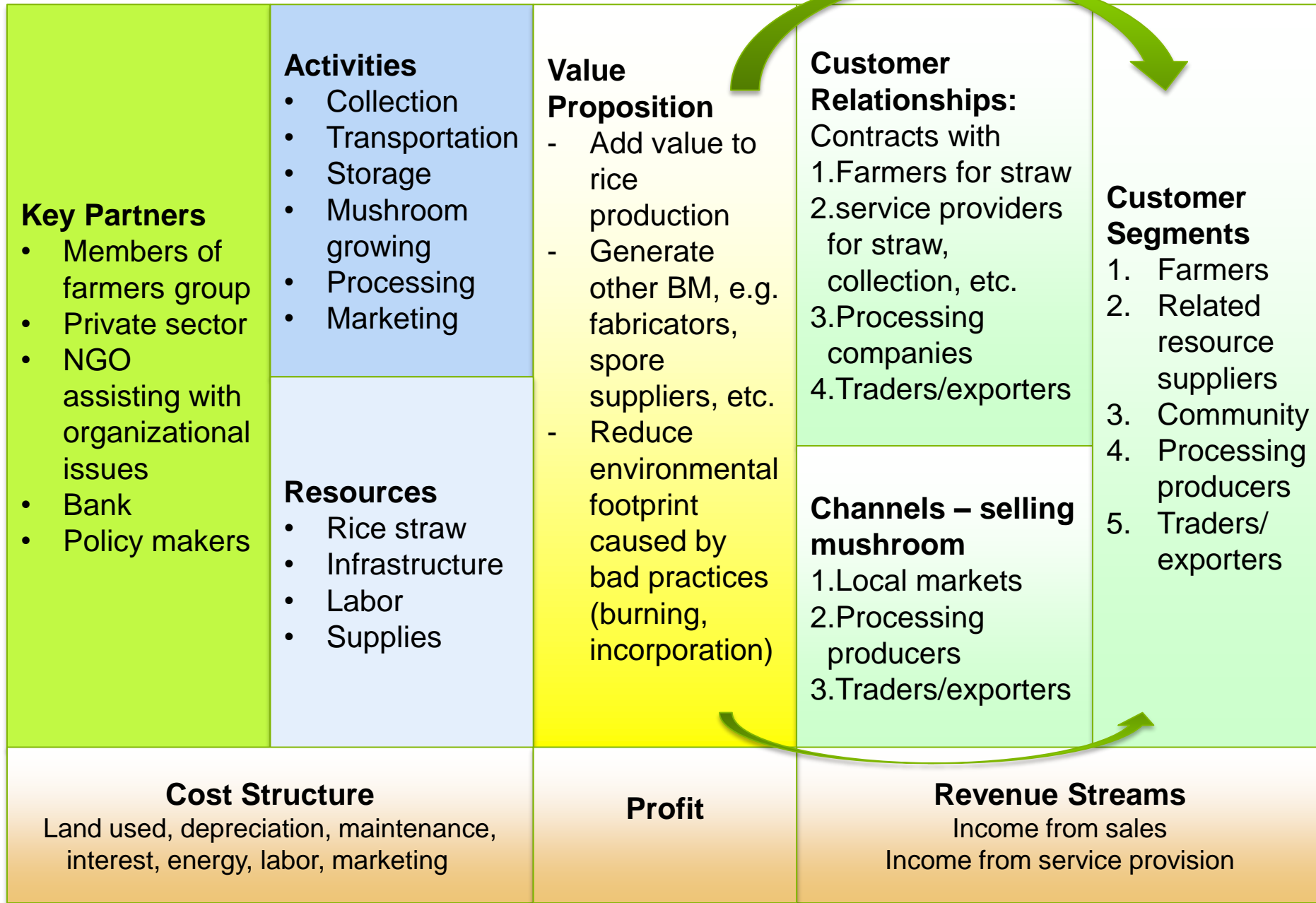
Training on Rice Straw Mushroom Production

Project: Scalable straw management options for improved livelihoods, sustainability, and low environmental footprint in rice-based production systems

Value chain of rice straw mushroom production



Business model: rice straw mushroom production



Rice straw availability (feedstock)

Province	Rice production, 1000 t	Estimated rice straw, 1000 t	% of rice straw burning in the field,
(Mekong Delta)			
Bac Lieu	990	594	50 – 70%
Ca Mau	550	330	70 – 80%
Can Tho	1,360	816	30 - 50%
Kien Giang	4,400	2,640	60%
Soc Trang	2,100	1,260	60 – 80%
Tra Vinh	1,000	600	70%
(Central /Northern VN)			
Quang Ngai	100	60	20%
Vinh Phuc	335	200	20%

Source: Nguyen Van Hung et al., 2013



Market of rice straw now



Year	Spread in the field (\$US/ha)	Baled straw at the field (\$US/ton)	Baled straw at the market (\$US/ton)
2013	15	96	115
2014	20	80	100
2015	30	62	95



Compress 10 roll-bales → 1 square bale

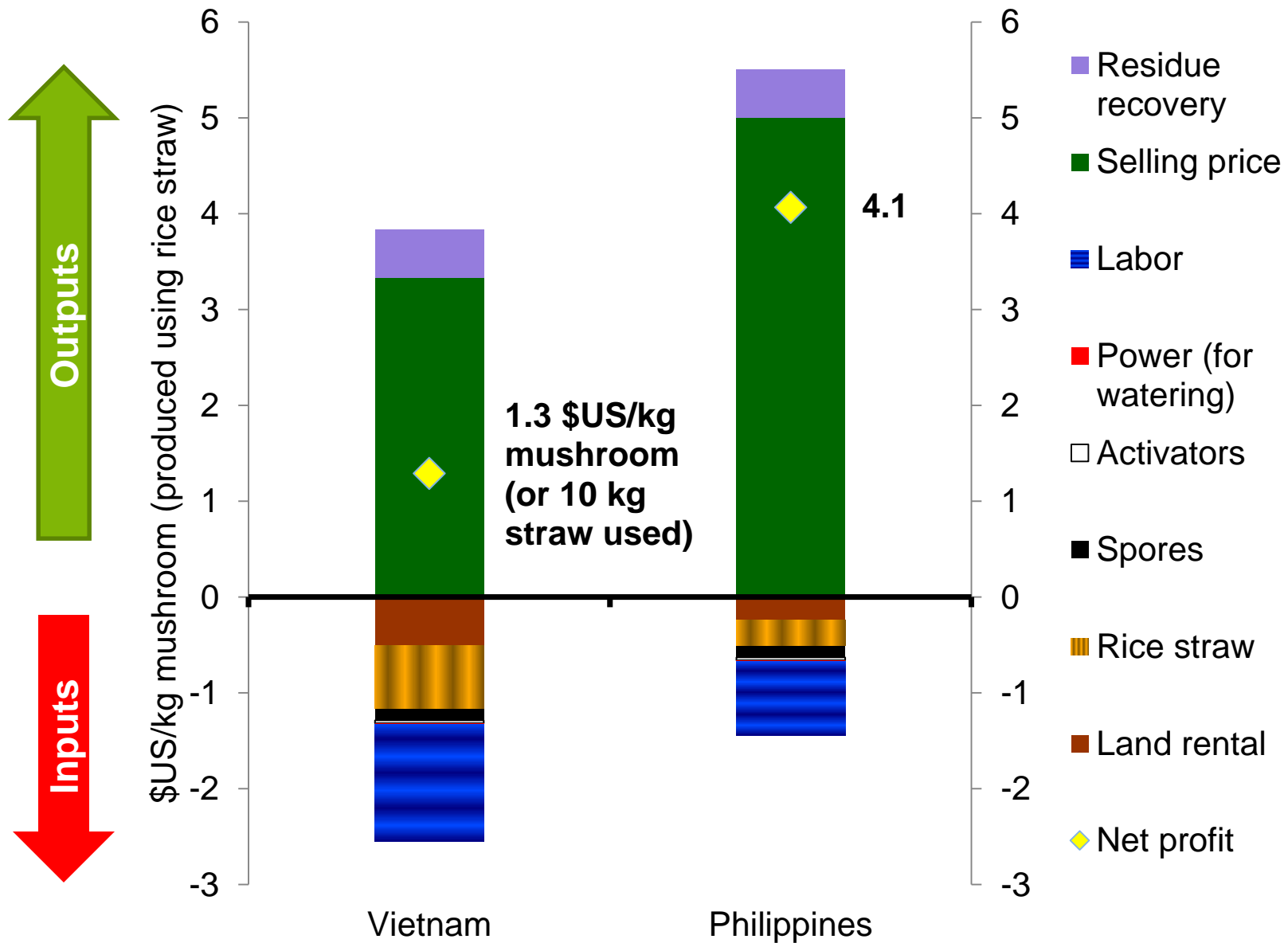


Or fermented-packaging



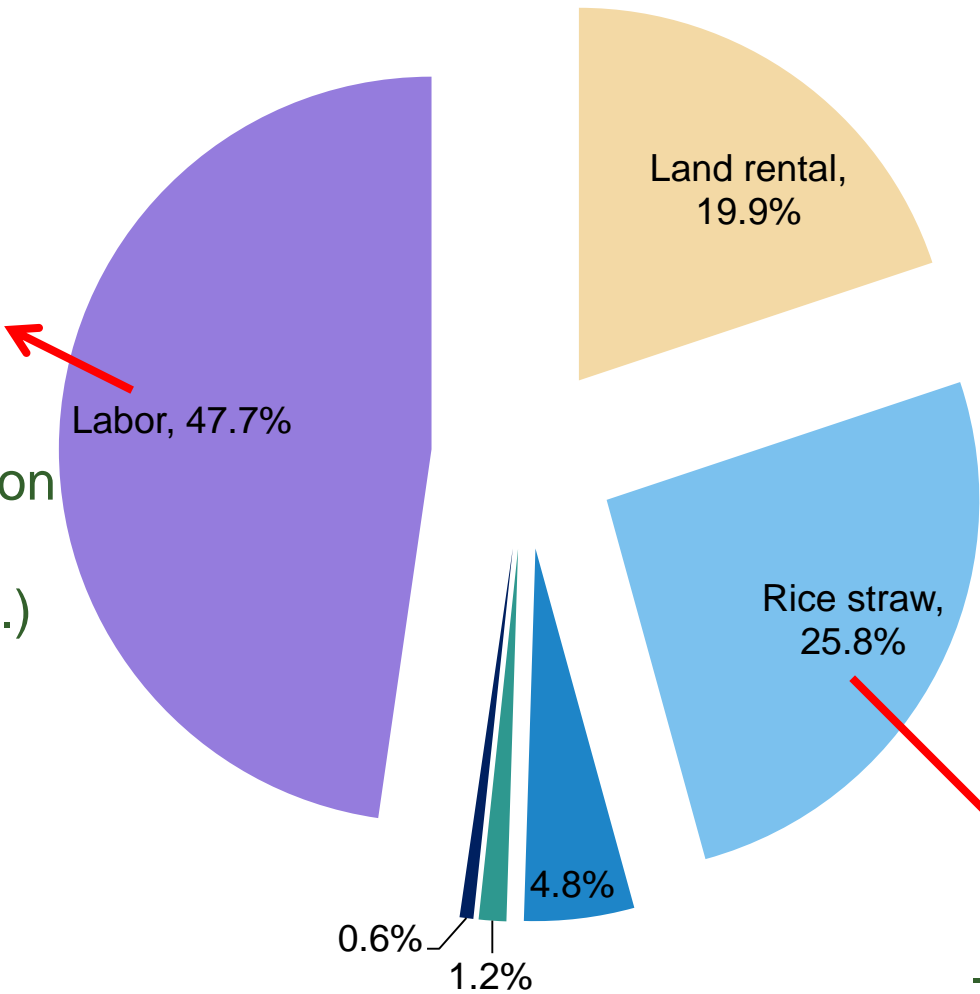
Increase bale density by 400% (94 → 390 kg m⁻³).
 → Reduce transportation cost by 60% for a 60 km driving distance using trucks.
 → Net profit \$US 6.2/ton (for compressing)

Cost-benefits of rice straw mushroom growing



Can reduce?

Increase mechanization (watering, turning, etc.)



- Land rental
- Rice straw
- Spores
- Activators
- Power (for watering)
- Labor

Can reduce?

- Reduce cost of straw
- Increase yield

Business model design process (adapted from Glenn's presentation)

Activities	Key success factors	Key dangers
1. Mobilization: preparation		
<ul style="list-style-type: none"> • Frame project objectives. • Test preliminary business ideas • Plan • Assemble team 	<p>Appropriate people, experience, and knowledge</p>	<p>Overestimating value of initial idea(s)</p>
2. Understanding: Research and analyze the elements needed		
<ul style="list-style-type: none"> • Scan environment • Study potential customers • Interview key personnel/experts • Research what has already been tried (e.g. examples of failures and their causes) • Collect ideas and opinions 	<ul style="list-style-type: none"> • Deep understanding of potential target markets • Looking beyond the traditional boundaries delinking target markets 	<ul style="list-style-type: none"> • Over-researching → disconnect between research and objectives • Biased research because of precommitment to certain business idea



Business model design process (con't)

Activities	Key success factors	Key dangers
3. Design: <i>Adapt and modify the business model in response to market research</i>		
<ul style="list-style-type: none">• Brainstorm• Prototype• Test• Select	<ul style="list-style-type: none">• Co-create with people from across the organization• Ability to see beyond status quo• Efforts to explore multiple business model ideas	<ul style="list-style-type: none">• Watering down or suppressing bold ideas• Falling in love with ideas too quickly
4. Implementation: <i>Implement the business model prototype in the field</i>		
<ul style="list-style-type: none">• Communicate and involve• Execute	<ul style="list-style-type: none">• Best practice management• Ability and willingness to rapidly adapt the business model• Align “old” and “new” business models	<ul style="list-style-type: none">• Weak of fading momentum



Business model design process (con't)

Activities	Key success factors	Key dangers
5. Manage: <i>Adapt and modify the business model in response to market reaction</i>		
<ul style="list-style-type: none">• Scan the environment• Continuously assess your business model• Rejuvenate or rethink your model• Align business models throughout the enterprise• Manage synergies or conflicts between models	<ul style="list-style-type: none">• Long term perspective• Proactiveness• Governance of business models	<ul style="list-style-type: none">• Becoming victim of your own success, failing to adapt





Thank you

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