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scottmadden

MANAGEMENT CONSULTANTS

Utilities and Distributed Resources: How I Learned to Stop Worrying and Love the Bomb!”

Transforming the Utility Business Model

December 8, 2014

Smart. Focused. Done Right.

What Is This?

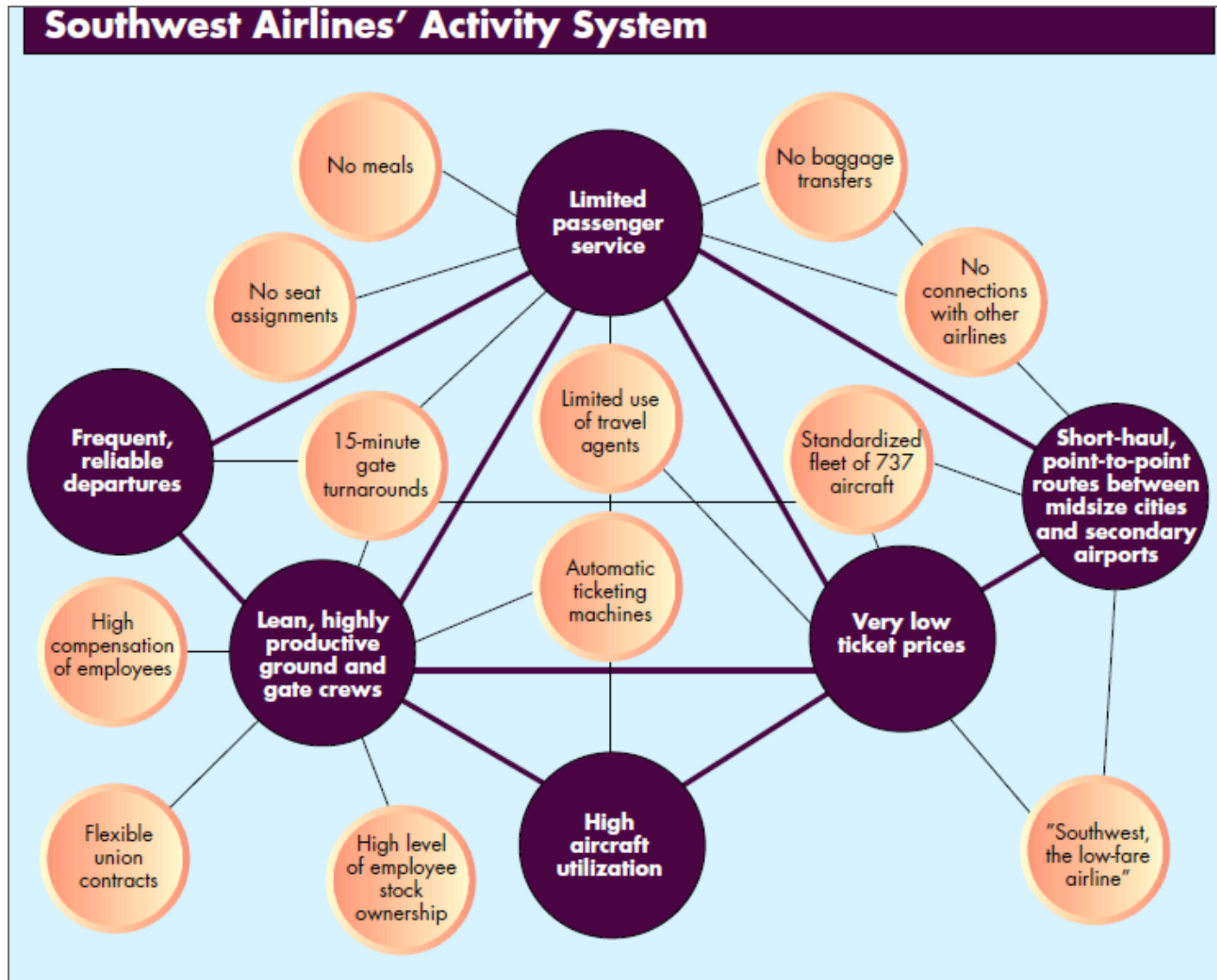


“The best way to predict the future is to invent it.”
— Alan Kay

Who's got the V?

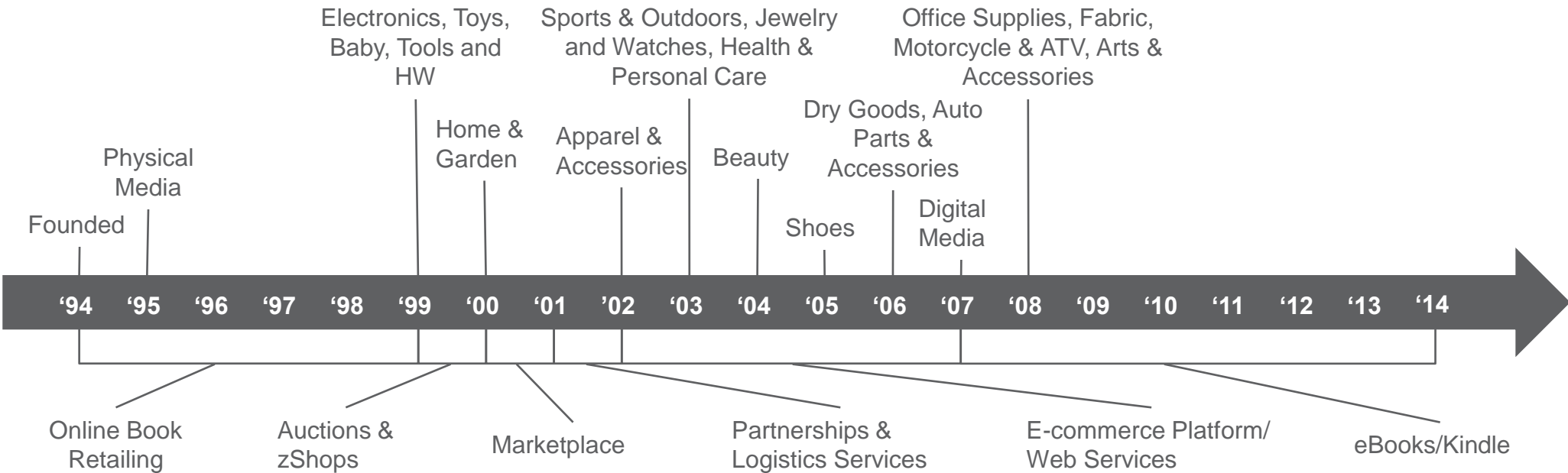


What Is a Business Model? – Southwest Example



Amazon – Product and Business Model Evolution

Product Evolution



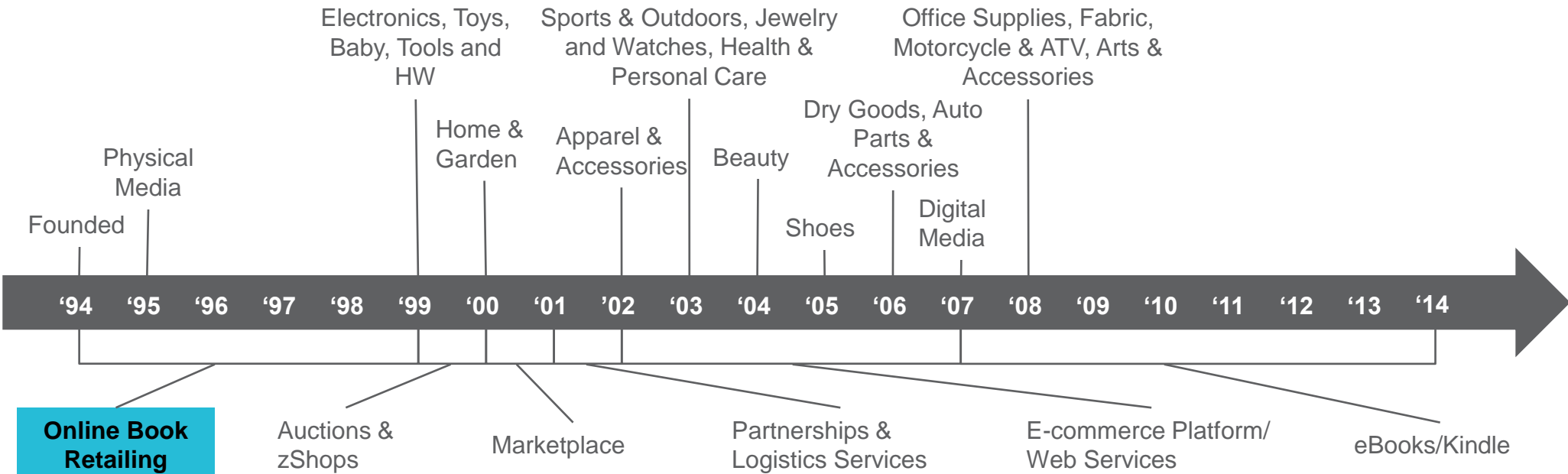
“Amazon at its roots is built to transform. When it finds opportunities to serve new customers, or existing customers in new ways, it conceives and builds new business models to exploit them. Amazon has the unique ability to launch and run entirely new types of businesses while simultaneously extracting value from existing businesses.” BusinessWeek

Business Model Evolution

Sources: <http://www.slideshare.net/Vlacke/amazon-business-model#>
http://www.businessweek.com/innovate/content/apr2010/id20100412_520351.htm

Amazon – Product and Business Model Evolution

Product Evolution



- **Founded based on Jeff Bezo's "regret minimization framework"**
- **Intentional slow growth model, without expecting profit for up to five years**
- **"Sell all, carry few" combined with "drop shipping" – maintained low stock, high reliance on wholesalers and publishers for order fulfillment**
- **Model allowed for survival through the dot-com bubble burst**

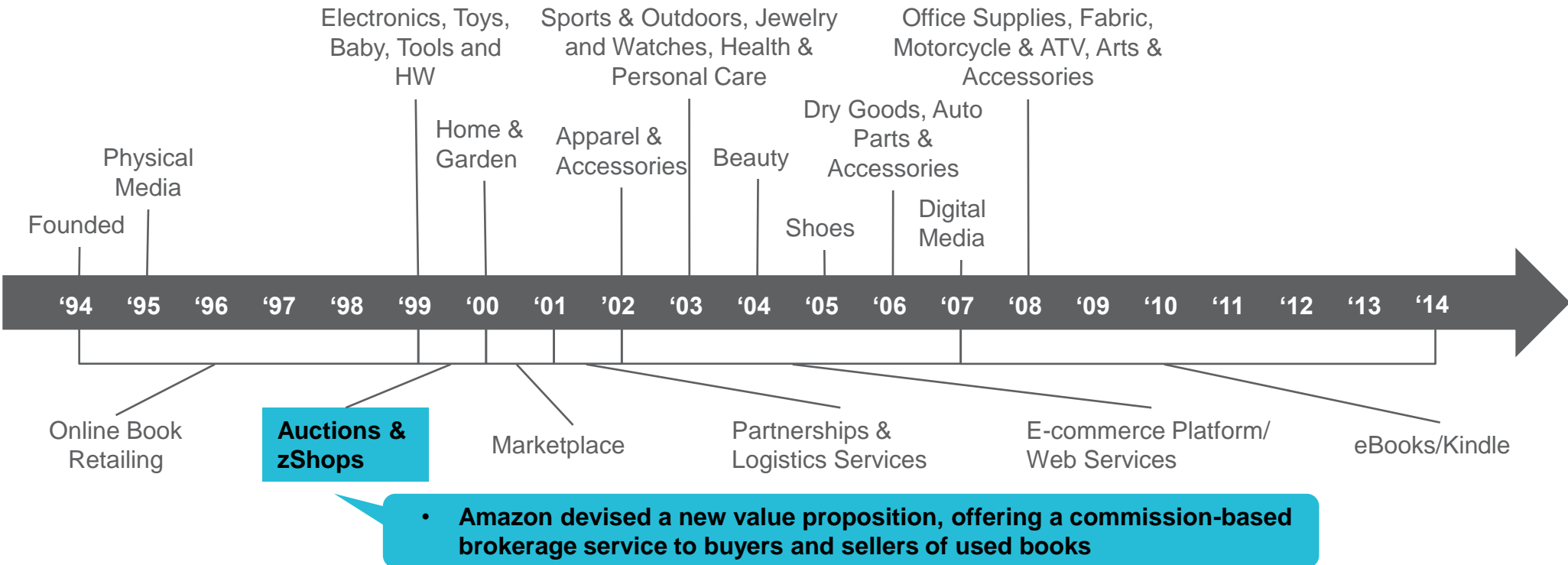
Business Model Evolution

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<http://en.wikipedia.org/wiki/Amazon.com>
<http://www.smartinsights.com/digital-marketing-strategy/online-business-revenue-models/amazon-case-study/>



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Product Evolution

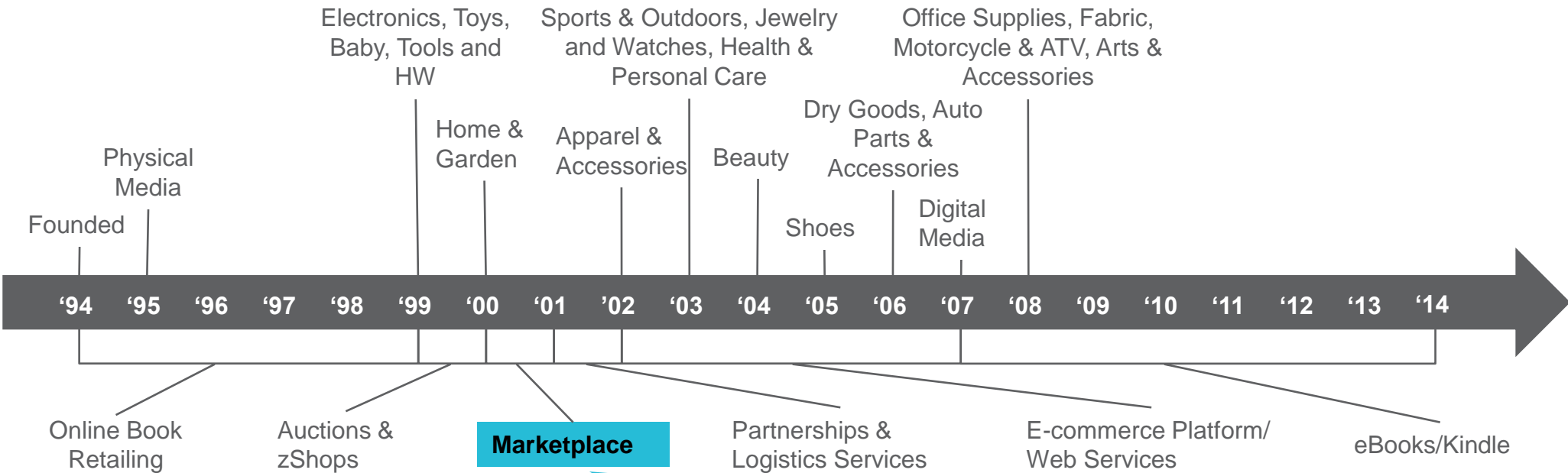


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Amazon – Product and Business Model Evolution

Product Evolution



Marketplace

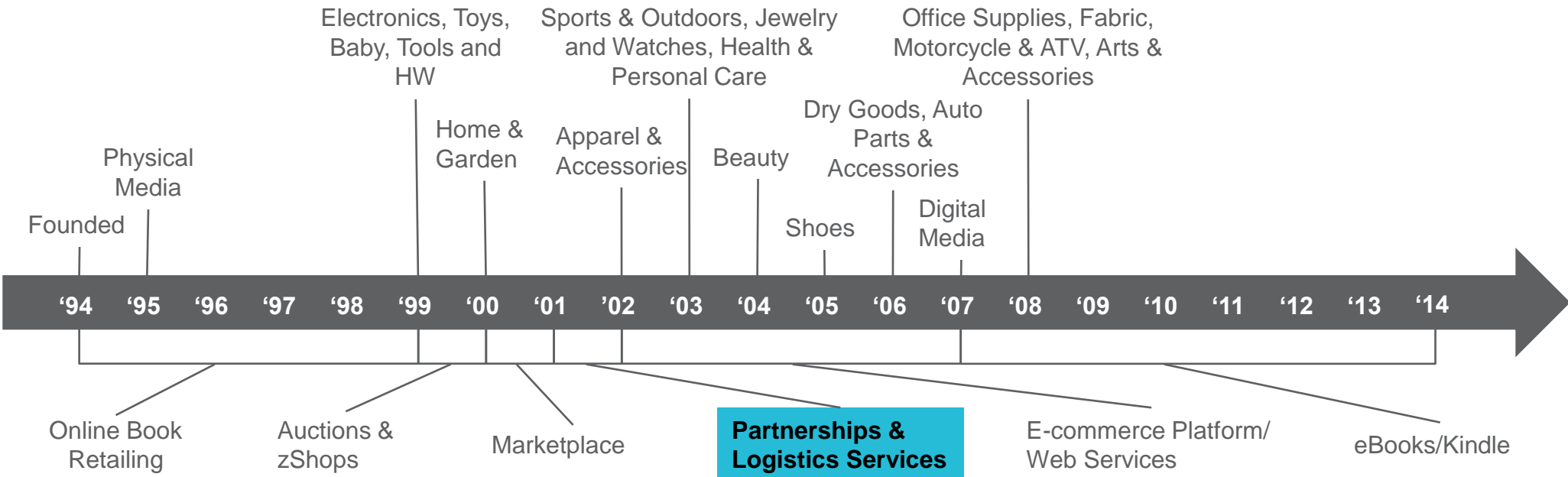
- Amazon began serving third-party sellers
- By opening up its storefront to competitors, Amazon transformed its business from direct sales to a sales-and-service model, aggregating many sellers under one virtual roof and receiving commissions from the other companies' sales

Business Model Evolution

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Amazon – Product and Business Model Evolution

Product Evolution



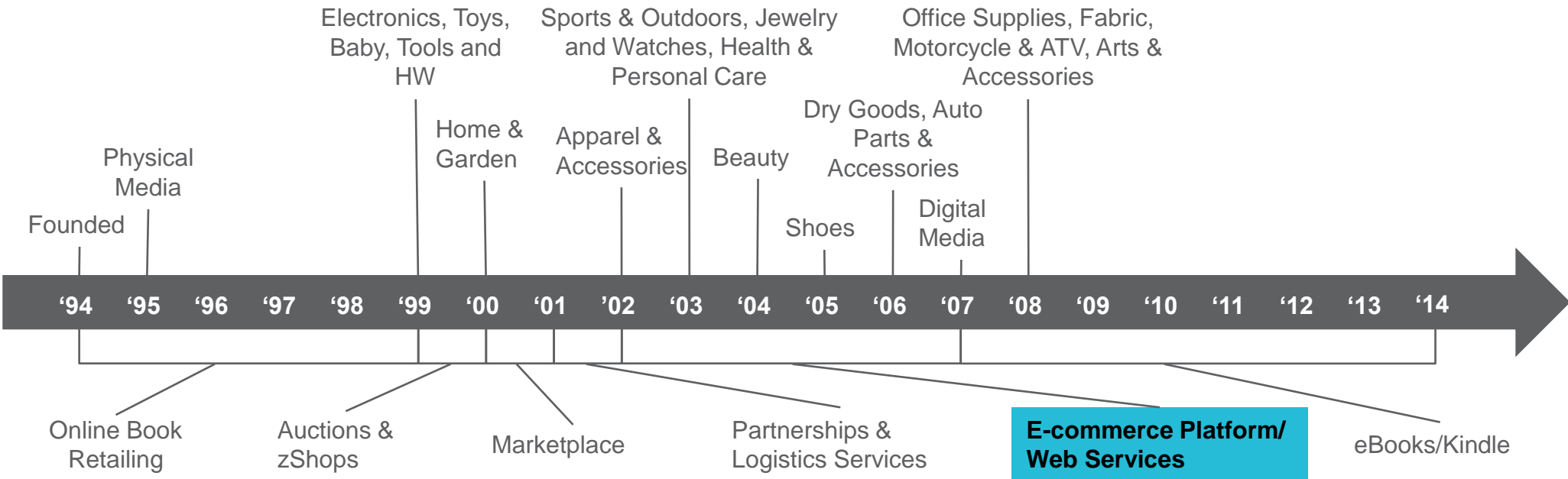
- Amazon consolidated its strength in different sectors through its partnership arrangements and through using technology to facilitate product promotion and distribution via these partnerships
- “Sell all, carry more” – Focus shifted to a business model built around excellent delivery performance and efficient logistics

Business Model Evolution

Sources: <http://www.slideshare.net/Vlacke/amazon-business-model#>
<http://www.smartinsights.com/digital-marketing-strategy/online-business-revenue-models/amazon-case-study/>
<http://blogs.hbr.org/2013/11/amazon-constantly-audits-its-business-model/>

Amazon – Product and Business Model Evolution

Product Evolution



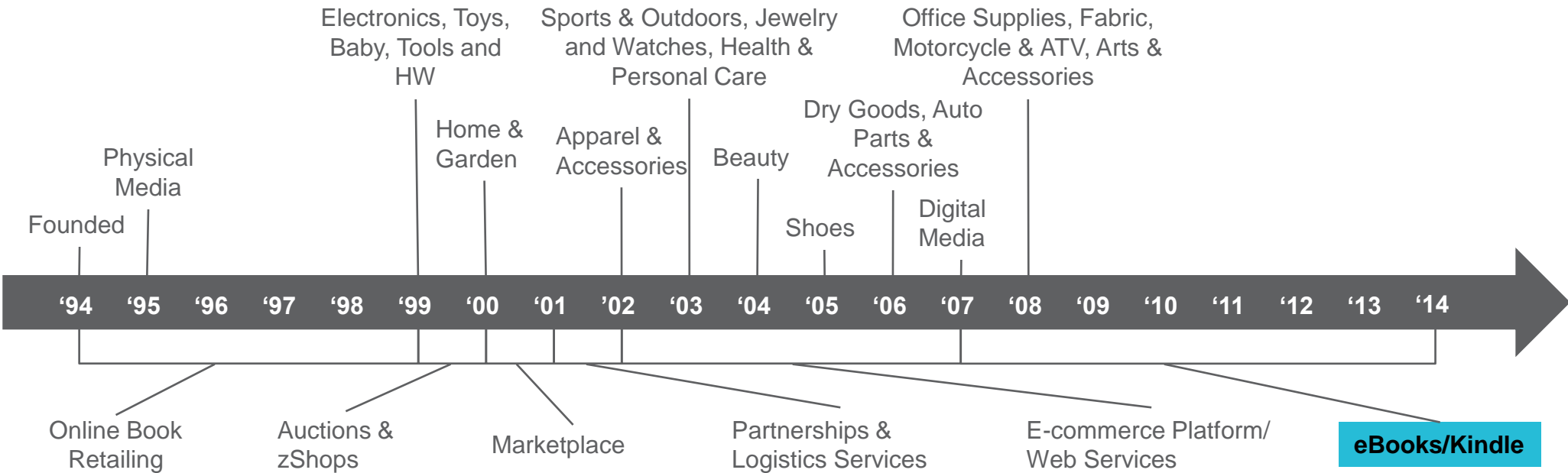
- Amazon Web Services launched in 2002, allowing programmatic access to latent features on the website
- Amazon Prime launched in 2005 as a membership offering free two-day shipping
- Fulfillment by Amazon launched in 2006 – independent sellers could use Amazon’s warehouse network to fill orders and delegate logistics-related decisions

Business Model Evolution

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Amazon – Product and Business Model Evolution

Product Evolution



- Amazon became an original equipment manufacturer (OEM) for this high-margin product-based offering
- Amazon wrapped this technology in a seamlessly integrated iTunes-type digital media platform that combined both transaction- and subscription-based content delivery
- Partnered with content producers in innovative ways and created an open back-end that allowed independent publishers to generate new content for the Kindle., selling an estimated 500,000 Kindles in the first year

Business Model Evolution

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Business Model Innovation

■ Definition of a Business Model

- A system of interconnected and interdependent activities...
- that determines the way the company “does business”...
- with its customers, partners, and vendors...
- to create value/competitive advantage

■ Business Model Innovation is imperative to ensure companies’ longevity in the marketplace

- Average S&P 500 company tenure
 - 1958: 57 years
 - 1983: 30 years
 - 2008: 18 years

Benefits of a Platform Business Model:

Amazon

- Since the launch of Amazon Marketplace in 2001, the company has experienced a significant average annual growth in stock price (see chart below)
- Amazon Marketplace transformed the company into a Platform Business Model, with three main properties
 - Magnet: A platform needs to get both producers and consumers on board
 - Toolbox: A platform needs to provide the tools required for producers and consumers to interact (and transact)
 - Matchmaker: A platform needs to match producers and consumers, leveraging data



Sources: <http://flatworldbusiness.wordpress.com/flat-education/intensify/creating-a-flat-business/case-amazon-com/>
<http://platformed.info/amazon-platform/>
<http://outsideinmarketing.wordpress.com/2012/04/15/platform-business-models/>



Benefits of a Platform Business Model: Utilities

Moving to a Platform Business Model would not only provide access to a wide variety of energy resources for the consumers, but will also build brand equity and a competitive edge for the utilities, ultimately ensuring their place as industry leaders within the energy marketplace

- Instead of relying on the traditional grid as the sole revenue source, a seller-agnostic platform would create additional revenue streams for utilities
 - Subscription-like revenues
 - Transaction fees from buyers and sellers
 - Returns generated from the platform as an asset
 - Optionality
 - Sell own services
 - Benefit from others
 - Flexibility/adaptability
- Additional benefits allowed through a Platform Business Model
 - Increased transparency into customer usage patterns would allow for more accurate and fair pricing
 - Increased ability to load balance during periods of high demand
 - More innovation
 - Increased loyalty toward the utilities, even though giving the option to purchase from other providers
 - More efficient transactions
 - Improved environment
- But, must be fair, i.e., common carrier, to get in rate base – must deliver ratepayer benefits and efficiencies



Four Paths to Business Model Innovation

The Four Path framework consists of making decisions that affect WHO makes WHAT decisions WHEN and WHY. This framework makes Business Model Innovation process more systematic and open, with business model reinvention becoming a continual, inclusive process rather than a series of isolated, internally focused events.

Four Paths to Business Model Innovation	Decision Options
WHAT Mix of Products or Services Should you offer?	Focus Narrowly
	Search for commonalities across products
	Create a hedged Portfolio
WHEN Should You Make Your Key Decisions?	Postpone the decision
	Change the order of your decisions
	Split up the key decisions
WHO Are the Best Decision Makers?	Appoint a better-informed decision maker
	Pass the decision risk to the party that can best manage the consequences
	Select the decision maker with the most to gain
WHY Do Key Decision Makers Choose as They Do?	Change the revenue stream
	Synchronize the time horizons
	Integrate incentives

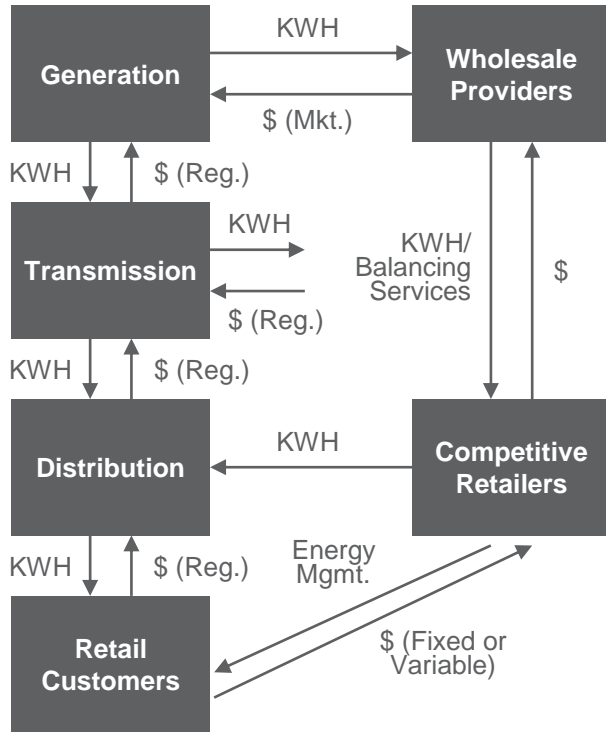
Source: HBR. Four Paths to Business Model Innovation. Karan Girotra and Serguei Netessine. July – August 2014.

Current and New Business Model: Features, Requirements, and Potential Impediments

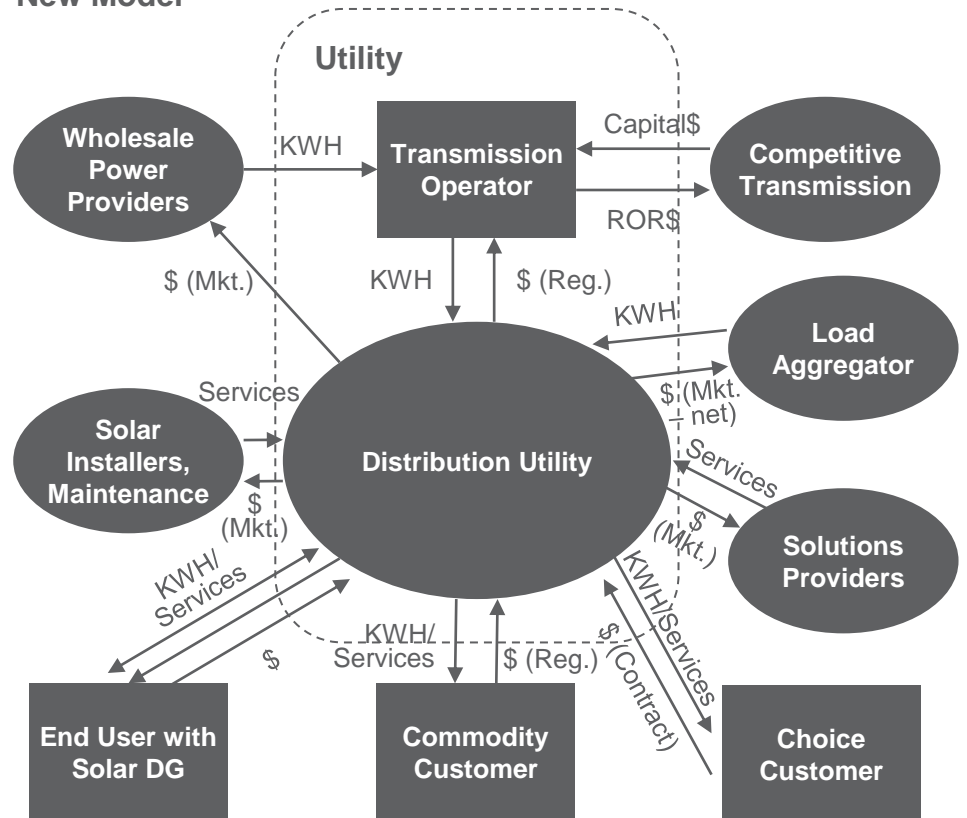
	Features of Current Model	Requirements/ Enablers of New Model	Potential Impediments or Uncertainties
Regulation	<ul style="list-style-type: none"> Cost of structure Rate of return 	<ul style="list-style-type: none"> Return on technology investment Performance incentives 	<ul style="list-style-type: none"> Inadequate return on risk Ongoing prudence reviews Potential stranded costs from existing system architecture
Financing	<ul style="list-style-type: none"> Stable debt/equity ratio Return on rate base 	<ul style="list-style-type: none"> Access to capital Dependable revenue streams 	<ul style="list-style-type: none"> Adjustment to non-volume-based revenue construct Significant capex and investment in platform and rate recovery thereof
Technology	<ul style="list-style-type: none"> Utility-specific Legacy, embedded infrastructure 	<ul style="list-style-type: none"> Flexible systems and two-way flows, network compatibility 	<ul style="list-style-type: none"> Lack of standardization 20/20 hindsight, esp. obsolescence
Operations	<ul style="list-style-type: none"> Control, management, and coordination Single directional flows 	<ul style="list-style-type: none"> Two-way flows High degree of automation Cross-coordination of multiple stakeholders 	<ul style="list-style-type: none"> Lack of standardization Added complexity; transaction costs
Competitive Environment	<ul style="list-style-type: none"> Well-defined and limited fields of competition 	<ul style="list-style-type: none"> Co-opetition Multiple participants in multiple venues 	<ul style="list-style-type: none"> Lack of qualifying (vendor) standards Nimble product/service developers
Customers	<ul style="list-style-type: none"> Low involvement commodity purchases Price sensitive 	<ul style="list-style-type: none"> Value-focused Involved in decision making 	<ul style="list-style-type: none"> Vendor creditworthiness and reliability Lack of interest in engagement, esp. if complicated

Current Model and New Model: How Products and Funds Might Flow

Old Model



New Model



Notes: "Reg." means regulated; "Mkt." means market-based; ROR" means rate of return

What Investment Analysts Are Saying

Investor and Industry Participants' Views Vary on Implications for the Utility Business Model

Not "Sharknado"



Potential Dinosaurs

- | | | | | |
|--|---|--|---|--|
| <ul style="list-style-type: none"> ▪ The risks to utilities today from distributed generation such as rooftop solar panels "are more conceptual than specific" ▪ The impending demise of the centralized electric grid in the US and its recent media coverage seem as exaggerated to us as the recent "polar vortex" or "sharknado" | <ul style="list-style-type: none"> ▪ There are large negative consequences for utilities associated with a widespread deployment of distributed generation, but only if we assume everything else associated with the utility structure as we know it today stays the same ▪ We have the benefit of lessons learned from other industries to shift the story and move the industry in a direction that will allow for customers, investors, and the U.S. economy to benefit and prosper | <ul style="list-style-type: none"> ▪ In the long-term, distributed generation is a threat....But it's going to be an evolution, and it's going to take a while ▪ Plenty of time for utilities to work with their regulators to amend or restructure the suite of recovery mechanisms, refine its service offerings and protect their credit profiles ▪ We envision an electricity market where demand for grid power falls, peak hours shift (perhaps dramatically), and regulatory mechanisms need to be adjusted or overhauled to accommodate some utilities becoming the electricity generators of last resort | <ul style="list-style-type: none"> ▪ We see near-term risks to credit from regulators and utilities falling behind the solar + storage adoption curve and long-term risks from a comprehensive re-imagining of the role utilities play in providing electric power ▪ The utility exists because the collective is cheaper than the individual. At the time at which the individual is cheaper than the collective, the utility ceases in its fundamental reason for being | <ul style="list-style-type: none"> ▪ Utilities do realize that distributed solar is a mortal threat to their business and ultimately, the utilities will lose this battle ▪ The utilities need to move away from a model that admittedly has served them well for 100 years where the utility earns 10% or 12% returns on its rate base year after year by putting steel in the ground and earning a return over 20 years. Utilities that are willing to innovate, in a regulatory model where regulators are willing to provide an incentive to change, will succeed. Those utilities that continue to put their heads in the ground will get gobbled up or disappear |
|--|---|--|---|--|

Are We Looking at the Piece Parts of the Future?



Contact Us

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