



#### **Forward**

Everyone agrees and we all want to know: how can we accelerate the acceptance and adoption of new innovations, products or methods?

We all recognize that innovation by itself is never enough. People must be willing to change and use new things.

Despite the well-known barriers that exist, the real problem is we tend to focus more on technology, features and functions than on human psychology.

And that's a problem because people make decisions based on the psychological need to feel safe. Not only that, people often resist new things because the elements of safety are missing.

To achieve our goal, we need to systematically add attributes into any product offering or innovation, that reduce the perception of risk.

The Low Risk Recipe™ is a structured method of ensuring the success of an innovative new idea, method or technology. And it gives business leaders a tool for identifying and delivering the attributes that allow people to feel safe enough to adopt your new product or innovation.

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#### Introduction

The need for change is greater now than ever before. No matter where we look, we see problems that can only be solved through innovation and change: unaffordable or unavailable health care, billions of people trying to live on just a few dollars a day, energy usage that outpaces the planet's ability to support it, education systems that fail many students, a lack of international co-operation, and many other challenges.

The solutions to many of today's problems all require people to accept a new way of doing things. Unfortunately, people hate change and will do almost anything to avoid it.

Despite our fascination with shiny new objects and the endless hype surrounding emerging technology, the human brain is wired to avoid uncertainty and risk.

We talk endlessly about change and even promote it, but in reality, we avoid it.

This document provides a framework for understanding the attributes of the world's most successful and widely-accepted innovations, and describes why all successful products and innovations have three "risk-lowering" elements in common.

### The Neuroscience of Risk Avoidance



People are physiologically wired to avoid loss, before they pursue gain.

And our neurological systems are designed to resist anything that is untested, unknown, or might compromise our personal safety.

Which is why all successful products and innovations have a common set of elements that reduce the perception of risk.



### High-Tech Often Means High Risk

Technology purchases are frequently perceived as higher risk because the buyer will always know less about the technology and the product than the seller. And a high-tech product that fails to work properly can cause an enormous amount of lost time and money. Plus, many high-tech products and services are difficult to fully try out, inspect, or test in advance.

On top of that, high-tech industries tend to be volatile and a sorting-out of competition occurs quickly compared to less technology-intensive markets.

Customers attempt to compensate for these elements of volatility and uncertainty by looking for signs of stability in both the company and the market. This process means prospective buyers will routinely depend on known sources of trust (and support) to develop the confidence to make a purchase decision.

#### **Perceived Risk**







Because humans are wired to feel safe and because everyone has a different risk-acceptance profile, a successful innovation is created through continual reinvention to lower the perception of risk.



### Our Approach to Risk Reduction

Leveraging the principles of behavioral science and social psychology, this document explains the methods that have been proven to lower the perception of risk.

Based on our analysis of over 200 meaningful high-tech products and innovations, it distills risk reduction into 15 foundational elements. Our goal? To help business leaders develop behavioral science-backed product strategies that ensure the right value is delivered to the right people at the right time.

Risk reducing attributes also signal to the customer that you understand their perspective, and that is the foundation of creating sustainable competitive advantage.

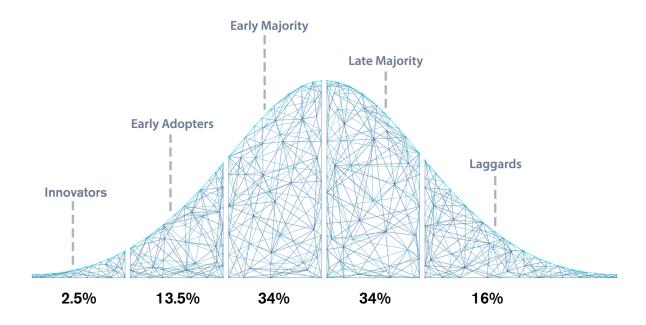


Our concept of dynamic change in the perception of products begins with research that defines the acceptance of new innovations. Diffusion of Innovations Theory, developed by Everett Rogers in 1962, has become the standard guide and reference for understanding the innovation-adoption process.

Rogers explains how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system. The end result of this diffusion is that people adopt a new idea, behavior, or product.

Diffusion of Innovations takes a very different approach to describing change than most other behavioral theories. Instead of focusing on persuading individuals to change, it describes change as being caused by the evolution or "reinvention" of products and services, so they become a better fit for the needs of individuals and groups.

In "Diffusion of Innovations" it is not people who change, but the innovations themselves.



## Differences in Product Perception

Customers experience high-tech products very differently than suppliers. Managers of high-tech companies naturally focus on the tangible aspects of their product, whereas customers naturally focus on the intangible elements that surround the technical product.

Intangible attributes include elements such as the supplier's brand reputation, customer service, user experience, and cost-benefit ratio. These attributes significantly influence a customer's perception of a product and their overall satisfaction with it.

In established markets, intangibles lower the perceived risk of adoption, integration and use.

Intangible product attributes are always segment-specific and are directly relevant to the perception of value by a customer who's got a problem to solve.

Successful companies are those that come the closest to seeing the world as their customers do.

## Suppliers Sell (mostly tangible)



#### You Sell:

- Core technology
- Features and functions
- Ancillary hardware/software
- Services

## Customers Buy (mostly intangible)



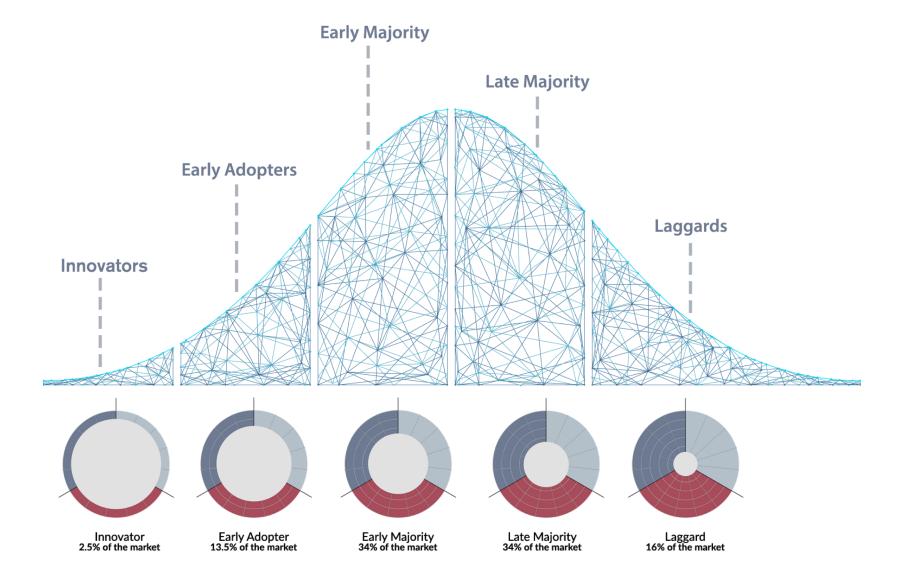
#### They Buy:

- Affinity with the end user
- Your reputation and track record
- Technical and domain expertise
- Unbiased information/support



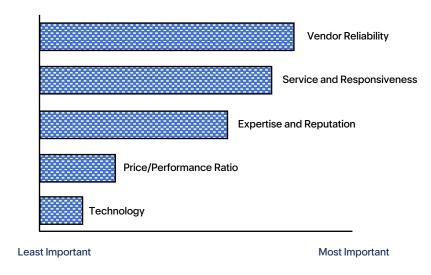
When an organization brings a new product (or service) to market, the initial customers and users are intrigued with the tangible features of the product itself.

But as the product begins to move into the market, and as the markets develop, a change occurs in perceptions of the product: intangibles assume an increasingly larger proportion of the perceived product.





#### **Factors Driving Vendor Selection**



Source: Gartner Group

Large-scale surveys of customer satisfaction by both **Bain & Company** and **Gartner** reveal the top criteria for vendor selection.

The vast majority of all customers want a product offering that provides evolutionary progress. This is the reason very few companies buy the hottest new technology from an unknown vendor.

What are customers actually buying?

An offering that includes:

- 1. the elements of end-user understanding, familiarity and the avoidance of change
- 2. demonstrated credibility of the supplier, who has the characteristics of an ideal partner
- 3. support from a well-established category or ecosystem that is completely independent.



### Introducing the Low Risk Recipe™

The Low Risk Recipe™ is an organized method of addressing the human need for safety and predictability. Understanding the need for personal safety is the key to addressing innovation resistance and/or accelerating the adoption of a novel or innovative solution to a problem. Personal safety "as perceived by the end user" is the determining factor for anyone trying to introduce an innovative product into a society, a market, a group of people or a community.

We have identified 15 intangible attributes and divided them into three major groupings: a) attributes that ensure harmony with the end user, b) attributes that indicate vendor credibility and a commitment to the market category, and c) attributes that act as safeguards but are typically external to the supplier's organization.

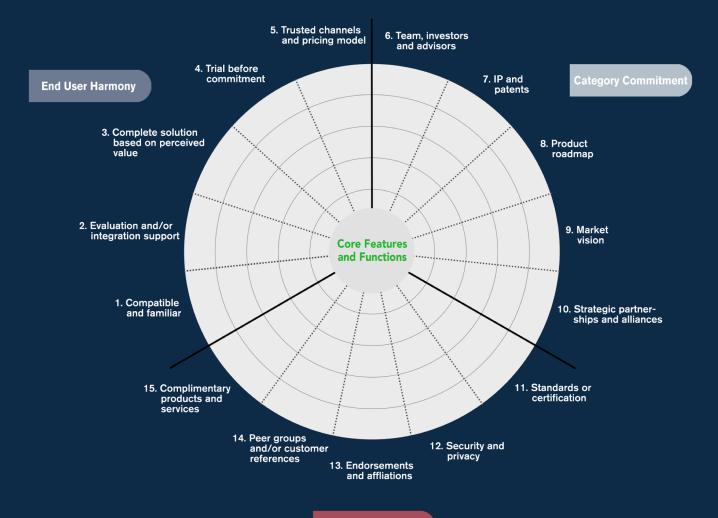


# 15 intangible attributes in three groups:

End User Harmony (1-5) - closeness and understanding that allows the suppler to see the world from the customer's point of view, and create a product that fits them so well, that it sells itself.

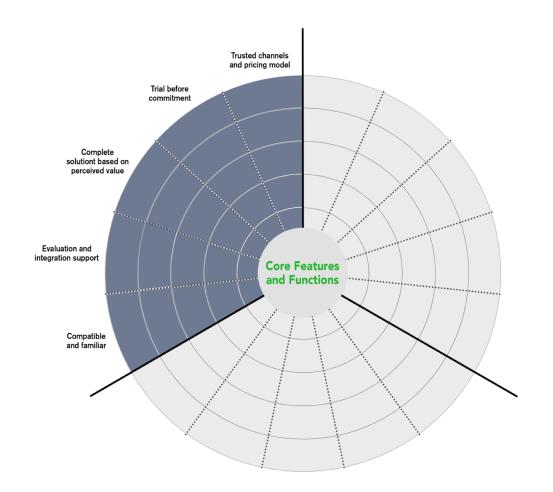
Category Commitment (6-10) - the supplier performs consistently well proving domain expertise, and demonstrates the characteristics of an ideal partner.

Safety in Numbers (11-15) – an independent ecosystem that increases the buyer's confidence, provides unbiased support, and reduces the perception of risk.



**Safety in Numbers** 





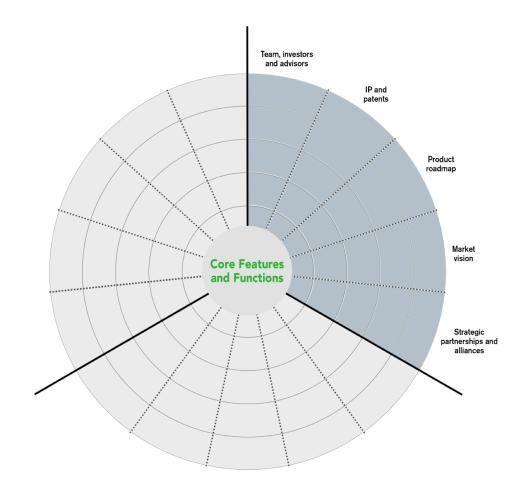
## 01

#### **End User Harmony**

Closeness and understanding that allows the suppler to see the world from the customer's point of view, and create a product that fits them so well, that it sells itself.

- Allow users to continue using existing systems and methods
- Provide comprehensive support before, during and after the sale
- Deliver a complete solution that is based on the users' cost-benefit preferences
- Make it easy for potential users to explore the innovation before adopting
- Use a trusted channel of sales and a well-known pricing structure



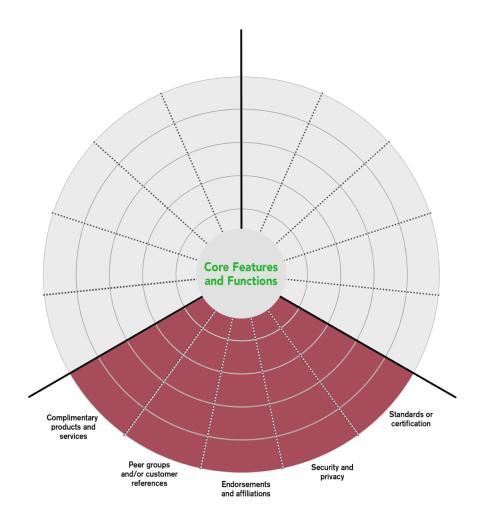


# 02 Category Commitment

Performing consistently well based on domain expertise, and demonstrating the characteristics of an ideal partner.

- Core competencies of your company that make you a valuable contributor
- Your intellectual property proves you can create valuable new tools and technologies
- Product improvements to expect in the future so there are no surprises or wasted resources
- A clear and specific description of a future market that matches your innovative solution.
- A plan to increase value through collaboration with strategic partners





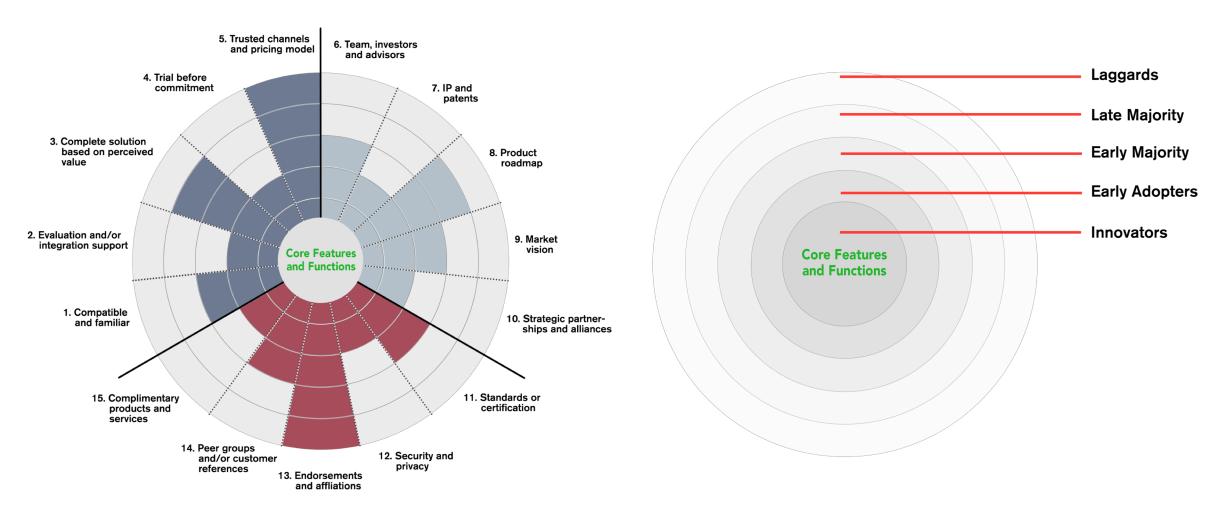
# 03 Safety in Numbers

An independent ecosystem that increases the buyer's confidence, provides unbiased support, and reduces the perception of risk:

- Adherence to industry standards or third-party certification
- Independent safeguards that provide security
- Endorsements from trusted organizations
- Exchange of unbiased information and recommendations from people the user trusts
- Complimentary products, tools and services



## A rule-based system for assessing your ability to progressively lower the perception of risk



## Examples



## **IBM Compatible Personal Computer**

Mostly through coincidence and accidental synergy, IBM created an ultra-low-risk product that launched a massive transformation, and the personal computer became a mainstream appliance. Intangible attributes in all three sections of the Low Risk Recipe allowed PC adoption to soar.

Prior to the IBM PC there were dozens of PC manufacturers, including Tandy/Radio Shack, Commodore, Altair, Atari, Texas Instruments, and Apple. When IBM sponsored development of the "IBM compatible PC" along with its clone architecture, the foundation for safety and predictability in personal computing was established.

End-user harmony was provided through the availability and delivery of complete solutions including an operating system, hardware, peripherals, application software and extensive documentation (3). Familiar retail stores such as Sears allowed prospective customers to test drive and explore PCs before purchase (4 and 5). Along with Sears, computer-specialty stores such as Computerland and Computer City were chosen to introduce the IBM PC.

Even with a complete product offering and familiar distribution channels, the cooperation between vendors in the PC category was even more transformative. Because the IBM PC was built from commercially available, off-the-shelf parts, all other PC vendors had full and open access to IBM's design. So, the entire industry organized itself around the IBM-compatible hardware standard (11). IBM PC "clones" included a standardized ATX/AT form factor, a basic input-output system (BIOS) and an ISA/EISA bus standard. When PC manufacturers adopted this standardized configuration, it eliminated the potential risk of "vendor lock-in," and full-scale mainstream adoption followed. A virtually unlimited supply of how-to books and manuals were available to support application software such as Wordstar, Lotus 1-2-3 and Ashton Tate DBASE (15).

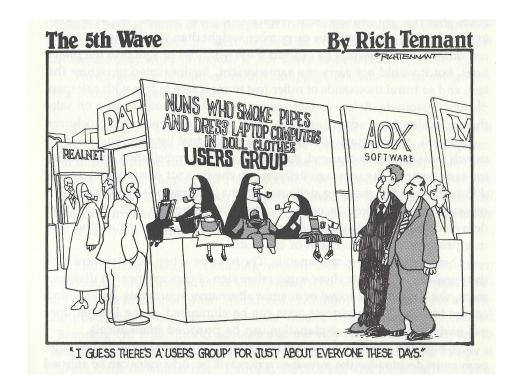


## IBM Compatible Personal Computer

One of the risk-lowering mechanisms included in the PC-clone standard was the implied compatibility with the world of computing, which was made possible by IBM's participation and sponsorship (13). The availability of a standardized product, and hundreds of complimentary add-ons along with the sponsorship of the most dominant name in computing allowed PC adoption to skyrocket.

Last but not least, attributes providing Safety in Numbers included the availability of independently-produced anti-virus software (12), as well as independent service providers and consultants (15). But the greatest impact came from the plethora of user groups that selforganized to provide an independent source of information and support for users of all kinds (14).

IBM's "de-risking" of the PC market helped develop a trillion-dollar industry over the last four decades. It paved the way for the eventual birth of laptops, tablets, smartphones, and made it possible for the Internet to flourish.



### **IBM Compatible Personal Computer**

#### **End User Harmony**

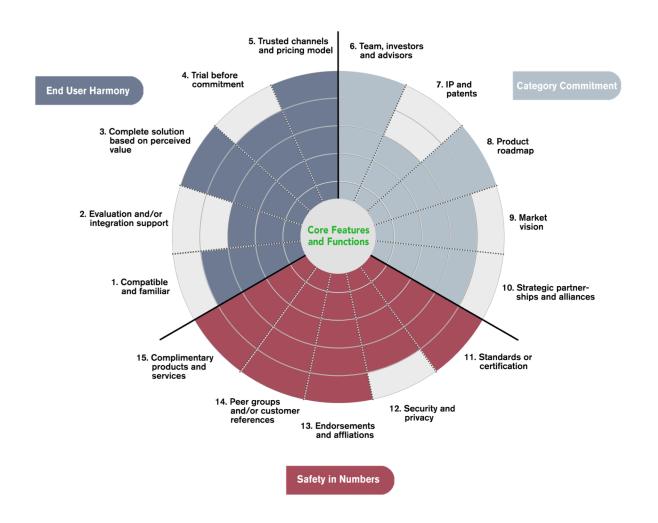
- Familiar user experience with similarity to IBM typewriters and word processors
- 2. Third-party classes on how to use VisiCalc (for evaluation support)
- 3. Complete, value-based offering including an operating system, hardware, peripherals, application software, etc.
- 4. Retail computer stores allowed exploration
- 5. Trusted retail channel (such as Sears) for consumers

#### **Category Commitment**

- 6. Created by one of the most credible companies in U.S. business history. Managed by Bill Lowe, the lab director at IBM Boca Raton
- 7. Open architecture strategy. Supported by a large vendor community that ensures interoperability.
- 8. IBM followed Intel's roadmap for their CPU going forward.
- IBM's market vision was to set the de facto technical standards for personal computers (similar to their accomplishment with mainframes)
- 10. Partnership strategy focused on retail partners to gain important knowledge about selling to individuals

#### **Safety in Numbers**

- 11. "Clone" architecture included a standardized ATX/AT form factor, a basic input-output system (BIOS) and an ISA/EISA bus standard, plus implied compatibility with IBM mainframes
- 12. Multiple providers of anti-virus software ensured security
- 13. Sponsorship by IBM, the most trusted and well-known name in computing
- 14. Unlimited user groups for peer-to-peer interaction
- Plethora of how-to books, add-on peripherals, software and services





### **Vermont COVID Vaccination Program**

The adoption of a healthcare innovation — such as a vaccine to prevent the spread of COVID — requires people to make medical decisions based on individual risk-benefit analysis. In this example you can see that the state of Vermont took specific steps to achieve the perception of low risk through the creation of a program called "Keeping You Safe."

Vermont Health Commissioner Dr. Mark Levine was quoted by the Associated Press as saying "the nation has witnessed what is probably the most successful population-wide mass vaccination campaign in the nation's history."

Vermont's historic success is the result of designing a vaccination program that lowered the perception of risk for all residents.

Vermont's vaccine program incorporated many of the risk-reduction methods that are important to a mainstream population: it was sponsored by an unbiased organization that is dedicated to clear communication (NPR), all vaccines were administered in familiar locations and settings, the alternative vaccines that were offered have the same underlying biological structure, and the use of town hall meetings and community-centered gatherings allowed citizens to discuss their concerns with people they relate to and trust.

### **Vermont COVID Vaccination Program**



## The Most Successful COVID Vaccination Program in the World

#### **End User Harmony**

- Excellent compatibility; no mass vaccination sites; vaccine delivered to people at general stores, gas stations, car races and local events
- 2. Guidance from vaccinators who were culturally competent (in 10 different languages) and appropriate for the setting
- 3. Value alignment based on the concept of personal safety
- 4. Citizens could discuss their concerns with first responders, immigrant aid groups and respected local pharmacists
- 5. Trusted source for vaccination information and unbiased guidance (state health agency)

#### **Category Commitment**

- 6. Managed by the Vermont Agency of Human Services
- 7. Expertise developed through previous community initiatives
- 8. Program roadmap presented through 145 briefings regarding strategy, plans and status
- 9. Market vision called "Keeping You Safe"
- 10. Partnerships with rural emergency medicine organizations

#### **Safety in Numbers**

- 11. Standard vaccine provided (Messenger RNA)
- 12. HIPPA regulations provided security and privacy
- 13. Vaccination program sponsored by Vermont Radio (NPR)
- 14. Town hall meetings organized by NPR enabled peer-to-peer interaction
- 15. Complimentary products included additional healthcare services

### Regional Transformation to Solar

#### **End User Harmony**

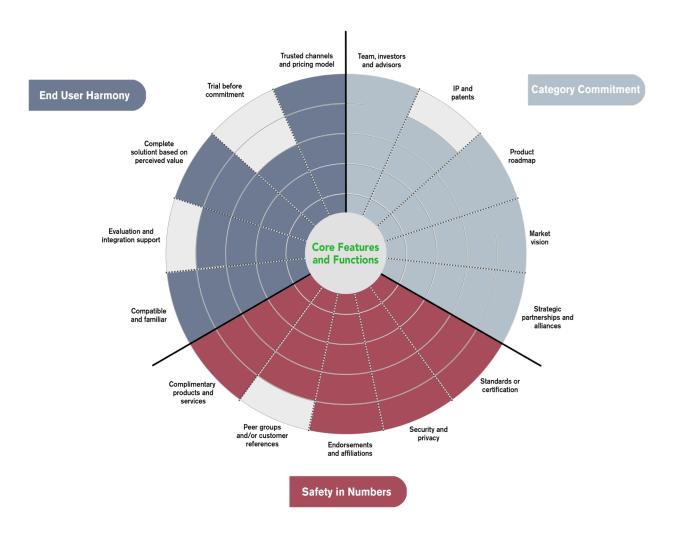
- 1. Centralized installation and servicing infrastructure managed by the local utility
- 2. Multiple support services: roof inspections, safety assessments, energy efficiency audits, etc.
- 3. Evolving ownership options with varying economic rewards
- 4. Customized economic analysis provided in advance
- 5. Completely familiar because the utility was well known and trusted in the area of electrical generation and supply

#### **Category Commitment**

- 6. "Eco-Pioneer" S. David Freeman played key roles in energy policy at TVA, the EPA, and the Ford Foundation
- 7. PV manufacturing facility built on site to accelerate the advancement of thin-film solar panels
- 8. Product roadmap was the systematic transition to "rooftop solar"
- Market vision known as "sustained orderly development and commercialization"
- 10. Partnership strategy focused on working with local installers and service providers

#### **Safety in Numbers**

- 11. Standardized system configuration with one size only
- 12. Earthquake reliability and security for homeowners provided
- 13. Sponsorship by the local utility, a known and trusted partner in the community
- 14. Focus on "neighborhood systems" allowed communities to engage with solar as a group
- 15. Peer-to-peer interaction enabled through community meetings



Over 50% of all grid connected solar in the U.S.



#### Reducing the Risk of Channel Innovation

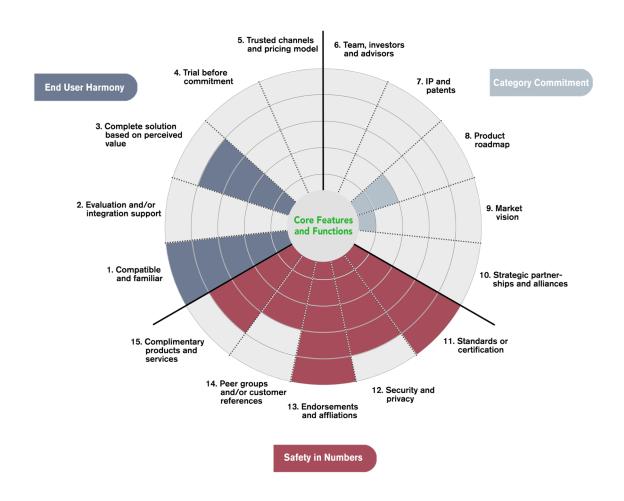
Companies that sell low cost or low risk products can still benefit from the Low Risk Recipe, especially if their delivery, pricing, or business model is substantially different or unique.

Amazon for example started by selling low risk products (books) but their delivery channel was much different than the traditional retail stores, which people were accustom to.

And amazon was a completely new, totally unknown, supplier with no track record or apparent category expertise.

By leveraging the existing ecosystem for bookpublishing (and by delivering a product that was extremely familiar), Amazon was able to emphasize **safety in numbers** and **familiarity** to reduce the perception of risk associated with their unique method of purchase and delivery.

## **Amazon Market Entry**



## **Niche Market Segments**



Racing



Cruising





**Dirt Trail Riding** 

## Market Segments

arket	Racing	Urban/Short Trips	Cruising	Trail Riding
ments	THOMES.			
End User Harmony	<ul> <li>Race track compatibility</li> <li>Racing motorcycle, warranty and service</li> <li>Endorsements and permits</li> <li>Training through AHRMA Academy of Road Racing</li> <li>Honda Powerhouse dealers</li> </ul>	<ul> <li>Designed for local travel</li> <li>Scooter with warranty and service</li> <li>"Street legal"</li> <li>Test drive available</li> <li>Motorsport dealers</li> </ul>	<ul> <li>Designed for road-trips and highways</li> <li>Touring bike with warranty and service</li> <li>Test drive available</li> <li>Motorsport dealers</li> </ul>	<ul> <li>Designed for off road</li> <li>Trail bike with protective fenders/guards, warranty and service</li> <li>Test drive with safety inspection</li> <li>Powersport dealers</li> </ul>
Category Commitment	<ul> <li>World's largest motorcycle manufacturer</li> <li>Vision: make motorsports sustainable and more attractive for everyone</li> <li>Merging of Honda's 4-wheel and 2-wheel racing divisions to strengthen operations</li> <li>Product roadmap: Higher torque, lower displacement engines</li> </ul>	<ul> <li>World's largest motorcycle manufacturer</li> <li>Vision: focus on inclusive mobility</li> <li>Product roadmap: migration to electric</li> <li>Partnerships to ensure stable procurement of nickel, cobalt and lithium</li> </ul>	<ul> <li>World's largest motorcycle manufacturer since 1959</li> <li>Vision: "hybridization" of scooters and motorcycles</li> <li>Product roadmap: wheels and brakes will be merged with ergonomics and wind protection</li> <li>Second highest brand awareness worldwide</li> </ul>	<ul> <li>World's largest motorcycle manufacturer since 1959</li> <li>Vision: Focused on the advancement mobility</li> <li>Product roadmap: migration to street legal</li> <li>Expansion to rugged off-road vehicles for delivery services</li> </ul>
Safety in Numbers	<ul> <li>AMA/FIMNA road racing certification</li> <li>Motorcycle Roadracing Association</li> <li>Motorcycle racing clubs</li> <li>Motorcycle consumables: racing fuel, brake pads, brake fluids, tires, filters, race fairings, special helmet and clothing</li> </ul>	<ul> <li>"Street legal" standards</li> <li>Standard octane gas</li> <li>Motorcycle Safety Foundation provides training and licensing</li> <li>Helmets and riding gear</li> </ul>	"Street legal" standards     Training through Motorcycle     Safety Foundation     Sturgis Motorcycle Rally     provides visual references	<ul> <li>Dirt bike safety training certification</li> <li>Co-branded marketing campaign with TrueTimber camouflage accessories</li> <li>Regional motocross associations</li> <li>Off-road helmet, gloves and clothing</li> </ul>



### **LRR Planning Template**

Our <u>Attribute Planning Template</u> allows you to document all of the elements and attributes needed to ensure a low-risk, segment-specific product offering.

For each of the 15 elements of risk reduction that are available, you can record and monitor your progress and document the necessary action steps to be implemented by your organization.

Risk Reducing Element	Description	Primary Responsibility	% Complete and Adoption Stage [I, EA, EM, LM, L]	Action Steps
1. Compatible and familiar				
2. Evaluation/integration support				
3. Trial before commitment				
4. Value alignment				
5. Trusted channels				
6. Team, investors and advisors				
7. IP and patents				
8. Product roadmap				
9. Market vision				
10. Strategic partnerships				
11. Standards and certification				
12. Security and privacy				
13. Endorsements or affiliations				
14. Peer groups or customer references				
15. Complimentary products and services				

[l=innovators, EA=early adopters, EM=early majority, LM=late majority, L=laggards]





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