IMPLEMENT
CONSULTING GROUP_

How vertical integration opens up new innovation opportunities reducing customer complexity

INNOVATE THROUGH VERTICAL INTEGRATION

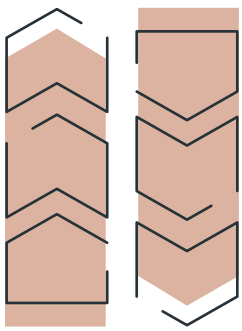
The idea in brief

Vertical integration has been at the forefront of management thinking since Henry Ford's fully integrated manufacturing plant in Dearborn.

Since the birth of Core Business thinking the discussion has focused on what should be done inside the company and outside by partners and suppliers.

In recent years many organisations have found that while focusing on core business significantly improved alignment, focus and operational efficiency, it limited innovation. Because a leaner organisation has less "things" in its portfolio, it is much harder to innovate outside the box and create new customer value propositions. In our experience there are 4+1 key areas that must be designed and crafted in order to capture the most value and innovation power from vertically integrating with another organisation. These are:

- Design for Efficiency
- Design for Novelty
- Design for Lock-in
- Design for Complementarities
- Design for Implementation



Identifying Innovation Opportunities in the Value Chain Driven by Vertical Integration

When Oracle bought Sun Microsystems in 2010 it was a bold and brand new move in the industry. No one had expected a software company to move back into hardware. In the past vertical integration moved in the opposite direction with hardware manufacturers acquiring software companies.

The reason for this bold move can be summarised in four key points:

- Efficiency. Internal, and most importantly the simplification by which customers can buy and use the combined products more easily.
- Novelty. Creating brand new features that were previously not possible with two separate companies.
- Lock-in. Customers will have a harder time switching from Oracle and support fees revenue will be higher.
- Complementarities. More products and services that create opportunities for more add-ons.

Let's go back to where it all started. Organisations have traditionally pursued acquisitions driven by market share, efficiencies in the value chain or obtaining control of IP rights. Next in line as a driver for acquisitions is innovation. Seeking out the best acquisition targets based on the innovation opportunities can be an enabler of growth. This is not to be confused with traditional innovation within the organisation, which is important in itself. In this article we will be addressing the capability to identify the new combined innovation opportunities that cannot be achieved by each entity alone. We call this Innovate Through Vertical Integration.

Designing strategy and business models was pioneered by Roger Martin in his book The Design of Business. We have in our work identified four design areas as enablers in uncovering opportunities for innovation in the value chain. Carefully designing the implementation phase ties the four design areas together and lets the effect be realised.
Innovation through vertical integration is guided through the 4+1 design areas:

1. Design for Efficiency
2. Design for Novelty
3. Design for Lock-in
4. Design for Complementarities and
5. Design for Implementation

"It's back to the future – from disintegration to integration"

– Larry Ellison, CEO and President of Oracle, said after they acquired Sun Microsystems.

However, identifying and implementing vertical integration translated into innovation is not easy.

There are a number of challenges when embarking on such an exercise. Here is an overview on where to start depending on your area of interest:

- **Further operational efficiencies within current organisational boundaries are limited.**
  Vertical integration enables new levels of innovative efficiencies through improved control of the value chain. Start with Design for Efficiency.
- **Current transactional structure and go-to-market channels are cemented by value-chain composition.**
  Combining existing parts of a value chain through vertical integration spurs innovation in the structure of transactions and the way channels are constructed. Start with Design for Novelty.
- **Loyalty and trust are cornerstones in today's competitive markets.**
  Enabling increased switching costs and lock-in through flexible value chain design are realised with vertical integration. Start with Design for Lock-in.
- **Leveraging product offerings with additional value-added products increases overall value and bottom line.**
  Vertical integration drives development towards more complementarities in actual offerings as well as in channels. Start with Design for Complementarities.

Case

Innovation Through Vertical Integration

Many organisations have approached vertical integration from the standpoint of internal efficiencies. That was the underlying driver behind Ford's fully integrated manufacturing process at the start of the 20th century.

Today most organisations pursue vertical integration from control, risk and flexibility standpoints. Control of resources, limiting or taking risks and flexibly changing direction quickly without the burden of commitments. Let's look at how Oracle, the number one business, middleware and database software vendor, acquired Sun, a maker of computer servers, storage and networking equipment.

Sun would not have been a traditional acquisition target for Oracle. There are no synergies in terms of products, support or logistics. However, Oracle saw other synergies. A combination of the two companies would enable innovation in both hardware and the database and business software, all critical components in the customer's IT environment. These innovations led to improving performance and most importantly, simplified their customers' everyday lives by offering complete solutions. Before the acquisition, Oracle and Sun customers had to create most of the value themselves by combining products and services from the two companies.

The trend in the industry is to create large, one-stop shops for software, hardware and services. IBM, HP, Fujitsu and others tried to do so with varying degrees of success. None of them used their integrated organisations to spur innovation in wider areas spanning multiple domains. Oracle's strategy reflects a significant shift away from niche, 'best-of-breed' players toward integrated giants.

"Oracle is no longer a software company. It's an integrated IT company. IT is maturing. It's no longer about 'best-of-breed' point-products, or owning just one 'category'. Oracle now has a full-spectrum offer: servers, storage, networking, software, and services."

But the Sun buyout does more than give Oracle a stock boost. It brings Oracle's integration strategy to a bold, new level. How so? It gives customers access to more powerful integrated hardware and software stacks removing most of the obstacles when putting the solutions together.

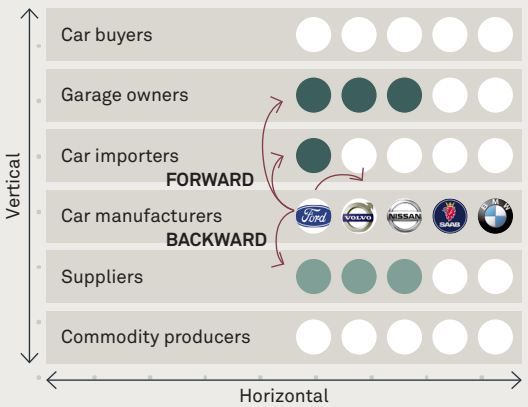
Removing cumbersome activities increases value for the customer and

Figure: Definition of vertical integration

Vertical integration is the degree to which a company owns its upstream suppliers and its downstream buyers. Vertical integration is typified by one company engaged in different parts of production (e.g. growing raw materials, manufacturing, transport, marketing, and/or retailing).

A company exhibits **backward vertical integration** when it controls subsidiaries that produce some of the inputs used in the production of its products. For example, an automobile company may own a tyre company, a glass company, and a metal company. Control of these three subsidiaries is intended to create a stable supply of inputs and ensure consistent quality in their final product. It was the main business approach of Ford and other car manufacturers in the 1920s, who sought to minimise costs by centralising the production of cars and car parts.

A company tends toward **forward vertical integration** when it controls distribution centres and retailers where its products are sold.



gives Oracle control of the value gained. Oracle will also be able to further enhance performance and quality by controlling the stack and improving total-cost-of-ownership.

The move by Oracle towards deeper vertical integration has enabled them to reap benefits in the four design areas:

Design for Efficiency:

Oracle's customers have three main challenges when it comes to operating their servers and database software. These are: putting it all together; fast execution; resolve times in connection with issues. By integrating vertically Oracle is able to speed up innovation in all of these areas. Complete end-to-end solutions or appliances give customers a one-stop-shop. Improvements in chip design and software utilising servers create better execution. End-to-end management tools shorten time-to-repair.

Design for Novelty:

Understanding what drives novelty for Oracle's customers and business partners enables the desired innovation. This applies not just to products but also to channels and business models. As we have discussed previously, innovating new levels of performance and simplification for their customers was one aspect. Another aspect was enabling partners to offer new channels to access an entire product stack and support to simplify them, removing complexities in dealing with two very important partners. From a customer and partner perspective the introduction of appliances changed the way they purchased and used Oracle products. From per CPU to actual usage.

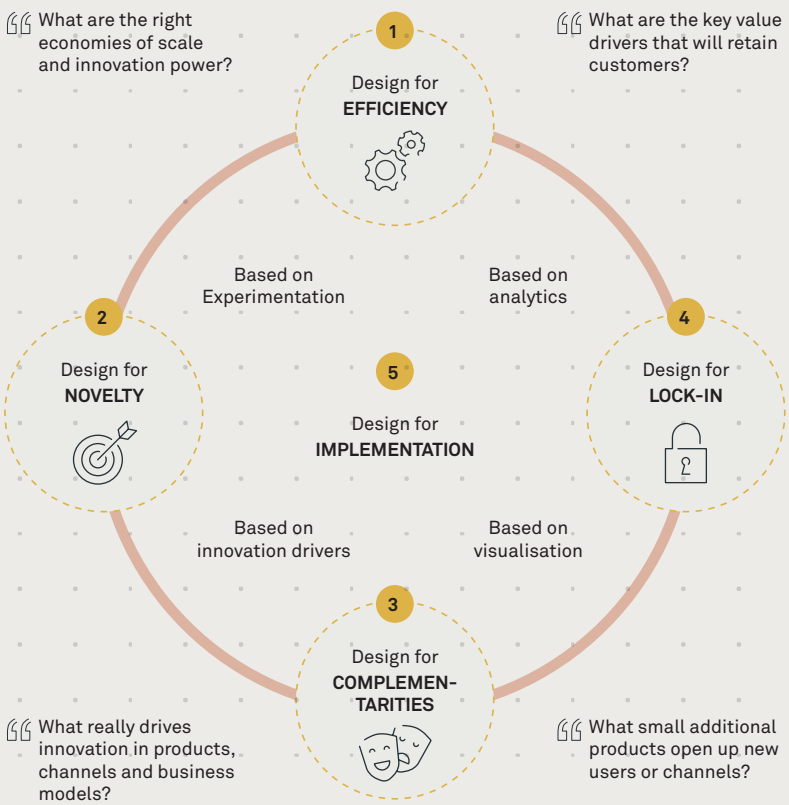
Design for Lock-in:

Integrating Sun's hardware with Oracle's software, optimising all the components of the technology stack to work perfectly together, will also give companies advantages in performance and reliability. Oracle gives them the simplicity and reliability of an integrated system. Oracle's strategy reflects a significant shift away from niche, 'best-of-breed' players toward integrated giants. That means 'best-of-breed' server, storage and networking vendors are going to have to fight for the left-over non-integrated sales. With Oracle's purchase of Sun, customers feel more secure about the long-term viability of the systems and see how Oracle integrates both hardware and operating system to ensure greater end-user reliability and back-end scalability.

Design for Complementarities:

When Oracle set out to acquire Sun it had its partners and service and support business in mind. Through the combination of the two organisations they could address existing partners and recruit new ones. It was not so much about new products as it was about increased value for the partners,

Figure 1: Implement Consulting Group's 4+1 Design Principles for Vertical Integration



Where to get more information

"Companies more prone to go vertical", Wall Street Journal, 30 November 2009

"The Network Challenge", Paul R. Kleindorfer et al., Wharton School Publishing, 2009

"Why Vertical Integration is Making a Comeback", Rita McGrath, Blog at HBR, http://blogs.hbr.org/hbr/mcgrath/2009/12/vertical-integration-can-work.html

"Moving on up", The Economist, 27 March 2009, http://www.economist.com/node/13173671

"The Design of Business", Roger Martin, Harvard Business School Press, 2009

being able to sell and work with a complete stack of hardware and software. New business models were enabled where partners sold pre-integrated appliances and higher value services instead of pure integration as previously. Utility computing was made available to partners where they paid only for the actual usage, not the physical.

Design for Implementation:

Acquiring a large organisation such as Sun and integrating it requires courage, determination and timing. We have seen that it is necessary to manage and balance five areas in order to succeed with a transformation project. We will now look at how Oracle addressed the five areas: Importance, Authenticity, People, Effect and Energy.

Oracle created Importance among its employees by highlighting the opportunities for performance improvements and simplifications for the end customer. With Sun it showed how the two companies had worked together for many years creating excellent results. That will now continue in the merged company but with more opportunities for innovation and excellence.

Being authentic and true towards established values and culture creates trust and Authenticity. Oracle's values are a combination of sales and innovation. The acquisition of Sun was based on a drive to create new innovation opportunities. It was equally fuelled by the possibility to grow sales and improve both Oracle as well as the former Sun.

Getting the right People in place and the wrong people removed is important to achieve early success. It is equally important to create a mix of different people to solve the challenges ahead.

When Oracle designed the acquisition it set a goal to achieve USD 1.5 billion in increased operating returns. This Effect is achieved through a combination of increased internal efficiencies, back-office cost-cuts and a changed business mix towards higher valued products. Both Oracle and the investor community closely follow the results.

The most difficult issue in such a complex merger is to keep Energy high throughout the entire process. The motivation for engineering and product management to achieve new innovations served as a positive momentum internally. When integrating the rest of the organisation, it was important to find successful organisations to connect to. Being part of the successful Oracle sales organisation opened up new possibilities to succeed. Two wrongs do not make one right so finding successful entities to foster success within the acquired parts is key to creating and maintaining energy.

When to Innovate Through Vertical Integration

Understanding the changed industry dynamics is crucial to identifying opportunities for designing innovation through vertical integration. The move is from measuring pure economies of scale and efficiencies to a world where innovation and time-to-market are the only major competitive advantages left. In such a world one must see when and why to expand beyond the current core business. The vertical integration of new businesses, which has taken place for years, has a new driving force – innovation.

Below you will find the key pitfalls when choosing the integration targets that drive your innovation capabilities. These apply to both backward or forward integration.

What is backward integration?

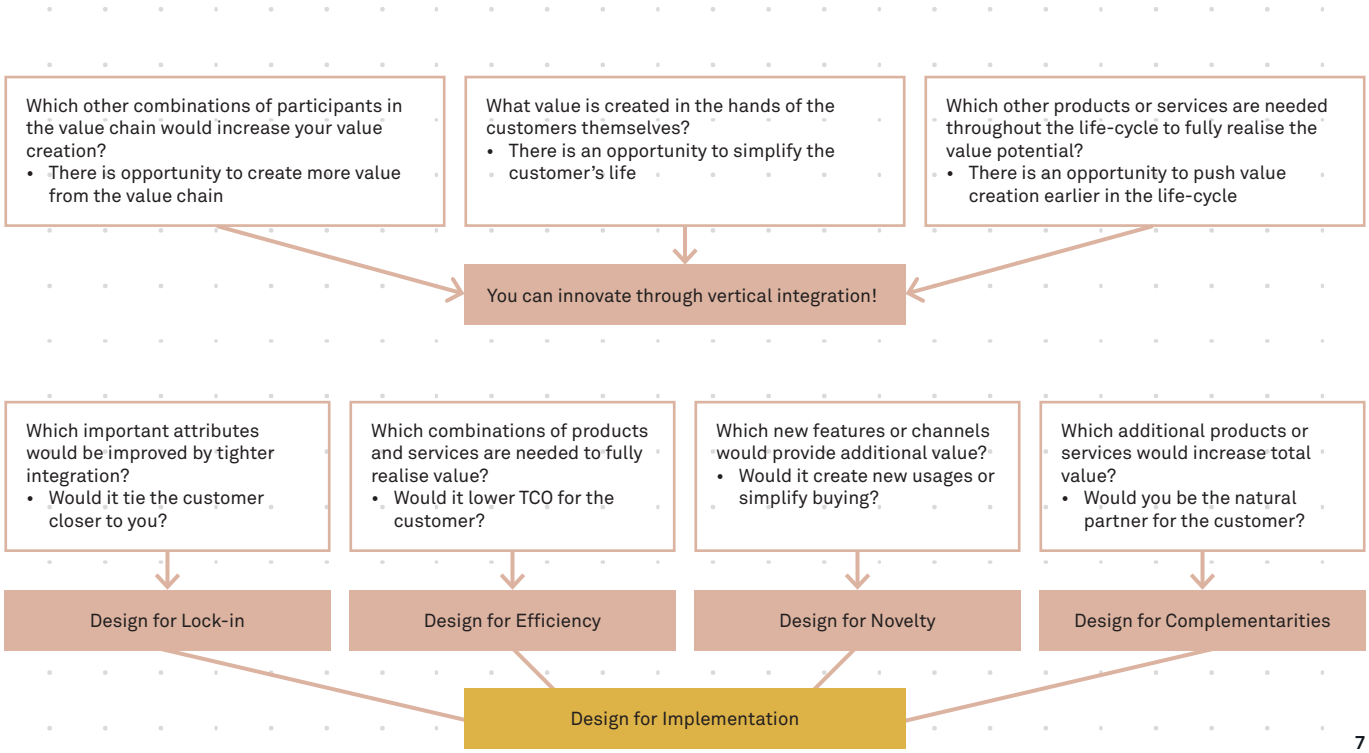
The value chain can produce value before you get involved which you can directly integrate into your own products. Or the chain of customers after you needs a product or service in order to extract full value from your offering. That product or service is a prerequisite for being able to use your product. Directly – when you put it together. Indirectly – when a customer carries out the assembly.

Integrating with such a product is called backward integration since it is a prerequisite for your offering to be of value.

When Oracle acquired Sun it was backward vertical integration because Sun's products were a prerequisite for extracting value from Oracle's software. Backward integration enables better control of how products are manufactured, customer value creation and product lifecycle TCO.

When to choose backward vertical integration? – when the manufacturer's value-added is not reflected in market power and there is significant opportunity for innovation that drives efficiency and /or customer value. See Figure 3.

Figure 2: Can you Innovate through Vertical Integration and where should you start?



What is forward integration?

The value chain uses your product to be integrated into additional value creation. You are a prerequisite for another product providing value. Forward integration is when you integrate with your direct customer or another entity who makes use of your product. You will get closer to the customer and influence the market use of your product. LiveNation executed a forward vertical integration when they acquired Ticketmaster because Ticketmaster offered LiveNation's concerts bundled them with other content. LiveNation got closer to the customer and increased its influence on promotion and positioning.

When to choose forward vertical integration? – when the channel's market power is not reflected in its value-added and there is a significant opportunity for designing innovation.

When and where to innovate through vertical integration

Designing a vertical integration effort to open up innovation opportunities is a two-step process. First you determine whether there are innovation opportunities to be gained from vertical integration. Answering the top three questions in Figure 2 will help determine the potential. The answer to these questions indicates where to find design opportunities. Identifying which of the 4+1 design criteria to use is crucial for maximising the potential. Use the second level of questions to identify which design criteria to start with.

In Figure 2 you can see further details on questions to ask and where to start designing.

When to choose forward vertical integration? – when the channel's market power is not reflected in its value-added and there is a significant opportunity for designing innovation.

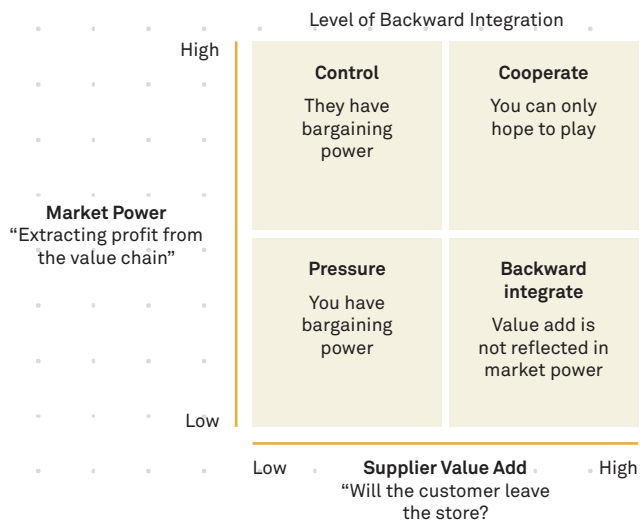
The 4+1 Design Criteria

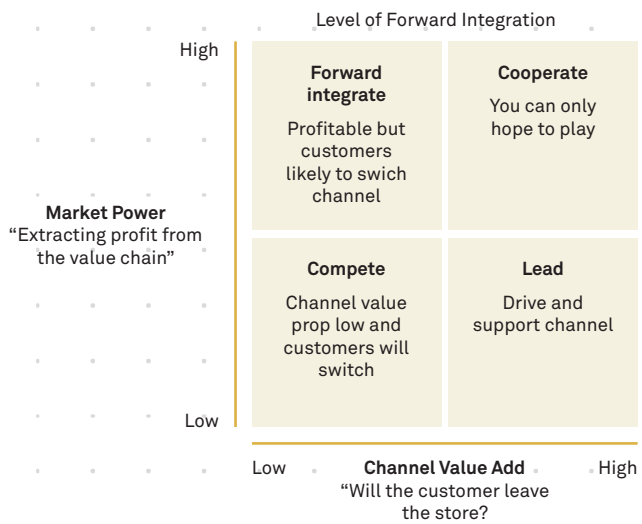
As we have seen there are certain prerequisites that are required in order to build a case for going vertical. Once these are satisfied you have to design which elements you want to focus on to benefit most from the integration.

These 4+1 design elements are:

1. Design for Efficiency
2. Design for Novelty
3. Design for Lock-in
4. Design for Complementarities
5. Design for Implementation

Figure 3: Level of Backward integration?
Figure 4: Level of Forward integration?





Where you start is governed by the situation you are in and the value that can be created for your customers.

We will now discuss each of these design criteria to help you identify where to start your vertical integration journey.

Design for Efficiency

Further operational efficiencies within current organisational boundaries are limited. Vertical integration enables new levels of innovative efficiencies through improved control of the value chain. Inefficiencies can occur across the entire value chain, all the way to the customer. When each step in the value chain is optimised for efficiency, the remaining opportunities for increasing customer value lie in the hand-over between participants in the value chain and in the hands of the customer.

Therefore, further levels of efficiency lie in finding the unseen combinations of products and knowledge that allow customers to utilise a complete set of new values.

The Oracle case shows how current Oracle and Sun customers could not extract more value from purchasing their products separately. By vertically integrating their products from silicon to database monitoring, Oracle's customers could achieve much higher levels of efficiency that would not otherwise have been possible. From a customer's point-of-view, vertical integration of the two companies has allowed Oracle to leverage the innovation possibilities that the two companies could not create on their own.

Aspects to consider when evaluating potential targets to secure increased levels of efficiency are:

- Which information search, quality and speed will be improved?
- Which transactions will be simplified and gain improved scale?
- Which values are currently created in the hands of the customer that could be more efficiently created by us?
- Which direct innovation costs are lowered as a result of integrating vertically?

Figure: Other examples of companies going vertical

COMPANY	TARGET	YEAR	MOTIVE	INNOVATION
TATA	TCS, Tata Chemicals, Titan Industries	2011	Combine different parts of Tata	Swach, cheapest water purifier
Ericsson	Kathrein	2011	Access to antenna knowledge	New combination of antenna and base station
LiveNation	Ticketmaster Entertainment	2010	Control event promotion and ticketing	Business model innovation
PepsiCo	Pepsi Bottling Group & PepsiAmericas	2010	Control of beverage distribution	
Oracle	Sun Microsystems	2010	Control of the HW & SW stack	Performance & ease of use
General Motors	Stake in Delphi Automotive	2009	Control over parts supply	
Boeing	Vought Aircraft Industries	2009	Control over manufacturing	
Apple	P.A. Semi	2008	Customise their chips for devices	Improved chip design
Nucor	SHV North America	2008	Access to raw materials	

Answering these four questions gives a good indication of the potential for efficiency gains in pursuing the undertaking.

The possible efficiency gains are at the customer end. Most value from a set of products is created when they are combined. When a database customer combines the database with given hardware and software configurations the real value is created. If that combination is not optimal, then the potential value cannot be extracted.

Ideas on how to design for efficiency

The starting point for any efficiency design is the customer journey necessary to realise the value. Include all products and services necessary throughout the lifecycle.

Gather people who are actively involved in the customer journey. Include internal people, partners, channels and even competitors. Make sure all customer-facing interactions participate.

Use scenario planning and "What if ..." questions to further understand the potential. Set decision points for a sub-set of the most promising scenarios through knowledge gathering methods like 200 Questions.

Identifying your value drivers at the customer end will help you identify the potential for vertical integration. However, customers do not just lose efficiency when they put together the solution themselves. Researching and crafting the solution introduces a great deal of risk and costs. Analysing the amount of time it takes a customer to develop the solution creates opportunities for further efficiencies. The business models used by each organisation involved in producing the end product create complexity. Aligning these business models simplifies transactions and improves the scalability of the entire value chain. Looking at Oracle and Sun, they each had different business models. Oracle charges per CPU in the box, not for actual usage. Sun charges per hardware which is able to run more than a database. By combining the two it is possible to achieve more aligned business models leading to improved scalability and simpler transactions.

Research, marketing and channel costs are significant for any innovation. Analysing which innovation related costs can be reduced.

Design for Novelty

Current transactional structure and go-to-market channels are cemented by value-chain composition.

Combining existing parts of a value chain through vertical integration spurs innovation in the structure of transactions and the way channels are constructed.

What really drives innovation in products, services and business models within your industry? When customers buy your products, what is it that they are really buying?

Designing for novelty means more than just new flashy products; it means designing the entire business in a new way. A new business model is the most straightforward interpretation. New products and services or combinations, enabling the customer to do things in a new way is also within the scope.

Let's go back to Oracle again. Their customers where buying fast access to the right data. Did they get it? No, they had to buy stacks of computers, disks and related software in addition to their Oracle database. On top of that, the performance of Oracle's database is dependent on the total configuration of all hardware and software combined. By combining Oracle's database software and Sun's hardware, down to the single CPU silicon chip, and operating systems, data storage, backup, etc Oracle's customers could suddenly get what they were actually paying for – fast access to the right data. In addition, it enabled Oracle to charge for other things in addition to their traditional per CPU database license fee business model. Changing the business model from a per CPU model to actual usage, per query or whatever suits the needs of the customer.

In the Oracle-Sun case we can see at least three different ways Design for Novelty affects the decision to integrate:

- New customer value. The integration between the two creates an opportunity for entirely new solutions.

- New supply chain flows. Value is created and aggregated earlier, at Oracle instead of at the customer, through novel combinations of hardware and software.

- New business models. Through the shift in value creation from customer to supplier, it becomes possible to charge based on attributes other than per CPU.

Building key hypothesis on Design for Novelty

Design for vertical integration at the highest level addresses Customer Value, Business Model and Participants. We usually ask these questions when considering vertical integration from a Novelty perspective:

Ideas on how to design for novelty

Study customers to identify a job not done or not done well. Understanding customers' reality enables you to design novel solutions.

Include all customers throughout the value chain.

Describe the job not done as a situation and complication that they recognise. The resulting question from the complication is the starting point in designing a novel solution.

Customer Value
- Where is value created in the new value chain?
- Which opportunities for innovation and new combinations will it enable?

Business Model
- Which novel transactions are made possible?
- What new incentives to participants in transactions are novel?

Participants
- Which new participants are brought together in a novel way?
- Which new interactions and value creation among participants are opened up?

Based on these areas and questions, choose a main rationale for which novel design criteria to select.

For each of the novel design criteria define metrics based on the key value driver in each criterion. For a Customer Value perspective, look for premium charged compared to competitors. A higher premium indicates that competitiveness has increased. In a Business Model perspective there may be new compensation models for participants that drive growth. Measure levels of new transactions, their contribution to growth and profit margins. These should all be higher than they are in current transactions in order to be valuable.

Design for Lock-in

Loyalty and trust are the cornerstones in today's competitive markets.

Enabling increased switching costs and lock-in through flexible value chain design is realised with vertical integration.

Switching costs whereby the customer has to pay a direct or indirect price for switching to another product or service are a sign of both value creation and profitability. Switching costs as sign of value creation means that the customer has at one point in time made a rational choice based on value and now there is a cost associated with switching. During design make sure that the switching costs are based on value and not a hidden poison pill.

Switching costs as a sign of profitability means that a healthy lock-in based on customer value enables higher margins and increased recurring customer levels.

Returning to our Oracle case we can see that before Oracle acquired Sun they had already created high switching costs in terms of technical performance and superior operational efficiency. Switching to another database meant re-doing a lot of daily routines that were already working without any value for the customer. The additional value and high switching costs allowed Oracle to charge high yearly support fees. With Sun those switching costs are even higher because now you have to replace more efficient hardware with more hardware at much higher costs.

Designing for lock-in should enable:

- Loyalty programmes
- Dominant design
- Intellectual Property
- Trust
- Customisation
- Network effects – direct and indirect

These areas are covered in detail below.

The key to Designing for Lock-in is to focus on those areas that create value for your customers and provide opportunities for increased profitability. Let's examine each of the areas listed above.You should choose one or two of these as your lock-in strategy-driving factor.

Loyalty programmes

Recurring customers are the foundation upon which high profitability is built. The basis for this statement is that the acquisition costs for a new customer are much higher than retaining an existing customer. How will you create improved loyalty? How will it lead to more recurring business? What will lead your customers to extract more value while increasing switching costs?

Dominant Design

Physical design of a product, technical solution design and design fit into overall business levels where dominant design creates a lock-in, limiting the customer's ability and willingness to switch vendor.

The way a product or service fits into the customer's needs will limit their willingness and potential to switch. The closer the fit is to the core value driver of the customer the harder the switch becomes. For a coffee shop the physical design of the coffee machine is very important; similarly the total-cost-of-ownership for an Oracle customer drives their likelihood of switching to a solution that is designed to work 24/7.

Which are the value drivers for your customers and how can you design your solution to fit these?
When finding integration opportunities, which improved designs can you innovate as a result? In which direction should you innovate?

Trust

A relationship based on trust has many more advantages than any other approach to building lock-in. Trust is personal, it is long term, it is mutual, it bridges failure and more.

Building a relationship-based business upon trust is the most successful path to recurring customers. It is also the most difficult, requiring you to focus all your energy and time on a very limited set of customers.

Questions to ask yourself when considering an integration play are: To what degree can we build our business on

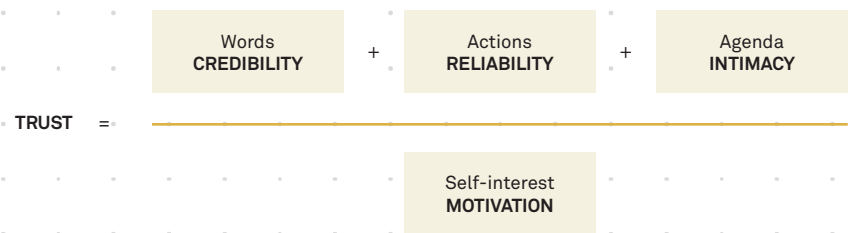


Figure 5: The Trust Equation

Ideas on how to design for lock-in

Define the product or service lifecycle from the customer point-of-view.

Why do customers stick with you? Why do they leave?

Use this understanding to design solutions that increase the stickiness. Test proposed solutions on selected customers to validate your assumptions.

Make it incremental since your learning; competitors change and customer expectations increase.

trust through the integration? In which way can we innovate new business models that build upon trust as the underpinning motivator for doing business with us?

Customisation

The easiest and classic way of building lock-in is to deliver customised solutions. Building to the exact and unique needs of a customer means you can hardly be replaced. As many examples show, it is very easy to disrupt this with standardisation. As others show, you can succeed through carefully selecting small niche solutions that are unlikely to be disrupted.

What customer needs can you serve better through customisation which will better enable integration? Which new innovative solutions and capabilities do you need to create in order to better customise your solutions?

Network effect

A direct network effect is when the value of a product or service increases as more users are added. An indirect network effect is when usage increases, you get more of something else. Oracle gets more developers as the number of database users increases – an indirect network effect.

Network effects create lock-ins through the social and technical pressure they put on users to continue to use the service. Which new network effects can you create through integration? What innovation should be carried out together to produce network effects?

Design for Complementarities

Leveraging product offerings with more value-added products increases overall value and bottom line.

Vertical integration drives development towards more complementarities in both actual offerings as well as in channels.

When the value of your offering increases if the customer has the other player's product or service there is a complementary relationship between the two offerings. Which product or service is being bought first or is the driver for the customer? Is it yours or the other player's? Which scenarios drive the customer to make a decision?

Going back to our Oracle-Sun case, the Oracle database is the clear value driver for customers to make a purchase. You do not buy a computer and then wonder what to fill it with, do you? Rather, you need to sort and find data and thus purchase a database. Then you find out which server to run it on, or maybe it is an iterative process where you start with a data need and then look for which combination of database and server is the best choice for you.

Acquiring Sun enabled Oracle to add a clear complementary product and services to their existing database business. It allows them to sell additional hardware to a customer that bought a database in combination with the other design criteria we have looked at previously.

Where can you find complementarities?

Among products and services for customers

- Complementarities through the lifecycle of the product. Examples include an optimisation service for an Oracle database.

Among online and offline channels

- Examples include complementing the online experience with offline support. Bokus.com, a Swedish equivalent to Amazon.com, has an offline chain called Akademibokhandeln, where you can enter the store to pick-up books or find advice. Similarly, the offline store experience is complemented by online access in the store through terminals.

Ideas on how to design for complementarities

What are the extras that your customer orders, from you or from others?

Which complementing channels would increase value and access to your solutions?

How would those complementarities be better served by you or increase the value of your solution?

Where can you source these complementarities?

Among technologies

- Adjacent technology that complement your current technology stack. Examples include BYD, a Chinese engine manufacturer, which complemented its electrical engine with a combustion engine.

Among activities

- The activities you perform as part of your value chain that can be complemented. Examples include Ericsson, a mobile kit vendor, which acquired its manufacturer in Estonia to enable increased product flexibility. Part of the core business, but not directly visible to the customer other than as increased product variations.

How can complementarities spur further innovation? When is designing an integration endeavour from a complementarities perspective feasible?

Design for Implementation

When designing the implementation of a vertical integration effort driving innovation, one of the most crucial elements is the ability to select the right areas. Changing the way we innovate, manufacture and go-to-market has drastic consequences for the organisation. Such changes place significant demands on the radical change of culture and how collaboration between units functions.

At Implement Consulting Group we see four factors as critical to successful implementation.
The will each be covered in more detail in the following pages.

Based on Experimentation

There are two ways to determine which products and services are appropriate for vertical integration, which innovations will be enabled and what customers will actually want. You can either use your gut feeling or you can experiment. Experimentation is the only way to find out what real customers are ready to pay for.

Experimentation investigates and quantifies the customer segments, products and services, value propositions, business models, partners, channels, etc needed in order to decide where to start and which goals to strive for.

Experiments can be as simple as testing a bundle of your products and the product you are considering integrating. Sell the bundle in a limited number of stores or to specific customers to test their response. In more advanced experiments you could try to innovate on top of the companies' current offerings, validating both the feasibility and value proposition.

Experiment on future organisational structure including performance management, channels, mid and long-term goals. The aim is to come up with proposals for a new organisation and the internal drivers.

The process during experimentation is to generate alternatives, thresholds for decisions and information.

Based on Visualisation

In a recent study by HBR asking employees what makes them enthusiastic about work, they answered, "the feeling that I am making progress".

In other words, on days when workers feel that they are making headway in their jobs, or when they receive support that helps them overcome obstacles, their emotions are most positive and their drive to succeed is at its peak. On days when they feel they are spinning their wheels or encountering roadblocks to meaningful accomplishment, their moods and motivation are lowest.

This is the reason why we at Implement Consulting Group believe in visual management. Daily visualisation of key performance including corrective actions is essential to create ownership for key operational metrics and thus crucial for the successful implementation of any changed behaviour.

Based on Innovation Drivers

When designing a vertical integration project there must be clearly identified innovation drivers. Which are the key areas where your customers are moving and where vertically integrated organisations will truly prosper?

These drivers could be technology, customer segments, business models, channels, changed demographics, etc. The important issue is not what they are but that you have a clear idea of where you think the largest opportunity for innovation will be in the planned integration.
Based on innovation drivers you should decide how to visualise progress, which experiments to run and which data to

collect. That will enable you to decide more quickly and more accurately which potential targets to go after, which technology options to pursue and how to measure progress.

Based on Analytics

Institutionalise data generation from the beginning. From nano data to master data.

Data collection and analysis is the underpinning force in steering towards the set goal. From the start, define which data to collect and what types of analysis to conduct. From the early experimentation stage to adjusting ongoing business analytics, it is the main tool that tells you where you are. View the process as iterative and incremental. Set some goals and collect data. Be active and experimental. Analyse results and take corrective action. Redo the process for further improvements.

Data types to collect and analyse:

- Nano data includes click-stream data, trends, production details, supply-chain movements in real time and enterprise resource planning. This data is generated from all the events occurring during a normal day in any enterprise.

- Master data in terms of customers, products, suppliers, materials, etc. This is the foundation and allows you to organise analysed nano data.

- Structured hierarchical data in terms of sales statistics, customer segmentation, product categories and employee results. This is hierarchical data above the trillions of bits generated by nano events which is what you would traditionally call data. This data is used to correlate the nano data into hierarchies and structure it for analysis.

Once data collections are up and running it is time to integrate it into daily operations and decisions. Management decisions and meeting cycles need to base discussions and decisions on the analytics collected. Since you seldom know everyone interested in and able to make intelligent conclusions based on the data, consider how to make the data accessible and visible.

Ideas on how to ensure implementation

Ensure clear goals and objectives within your organisation and the measurable effects for the customers.

Ensure visibility and transparency throughout the value chain. A clear picture of progress enables steering and counter measures. It is all about conversation.

Ensure fast round-trips through experimentation – from idea to customer feedback.

Ensure sharing and access to data and analytical information for all parties involved.

Contact

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