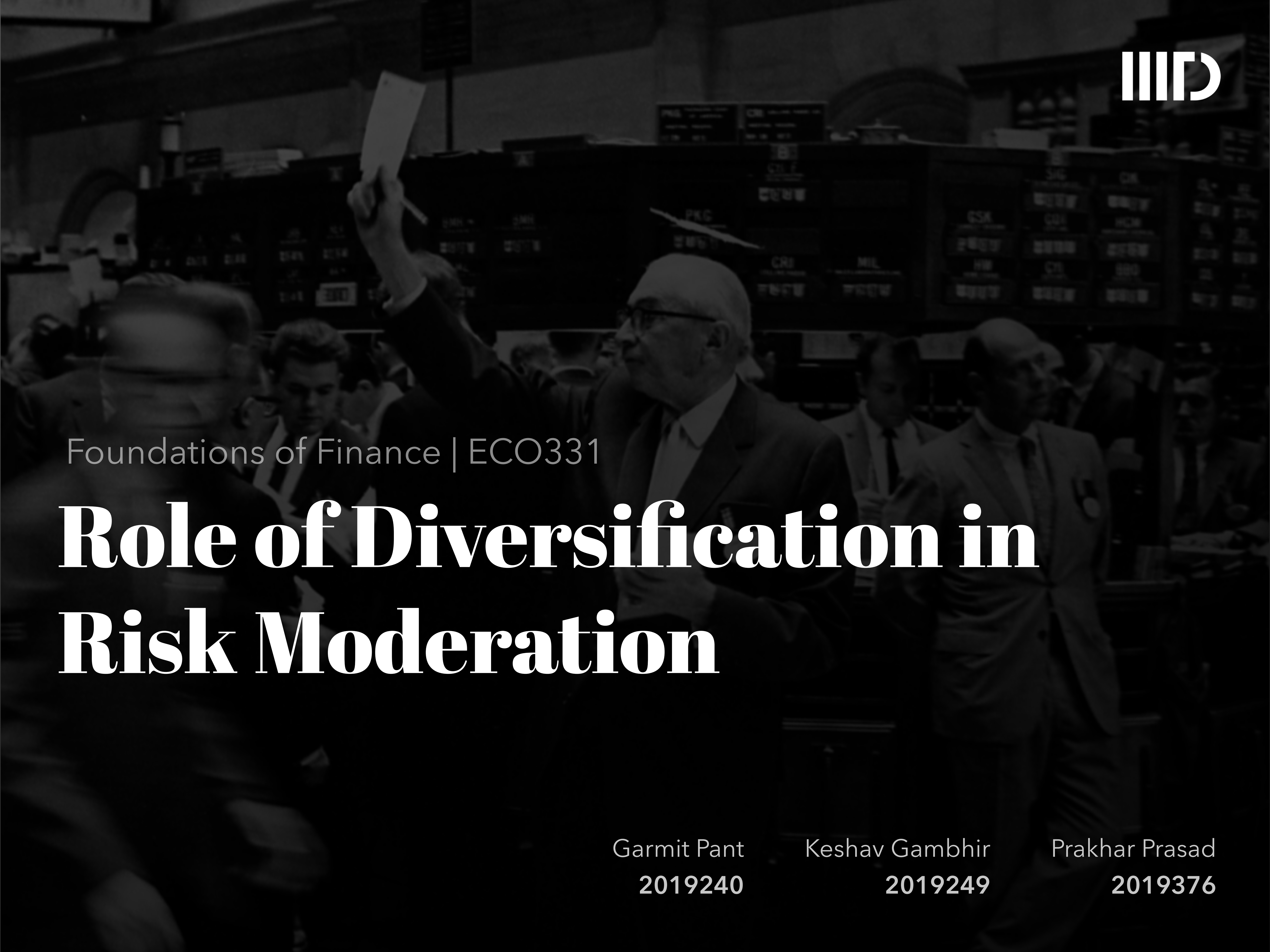

Foundations of Finance | ECO331

Role of Diversification in Risk Moderation

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2019240

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2019249

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2019376

Contents

Diversification

डाइ,व़र्सिफ़िकेशन्

noun

The act of diversifying something or the fact of something becoming more diverse.

In Investing

Investing in varied instruments and having a diverse portfolio to manage and respond to risks is called diversification.

Positive performance of some investments neutralises the losses in the event of negative performance of another investment.

Investments are chosen so they respond differently, preferably in opposing ways, to shifts in the market.

In Business

Diversification is a corporate strategy which aims to increase the market share and revenue of a by various means while also accounting for risks that emerge due to shift in market and economic trends.

For businesses, it can also be seen as a growth strategy.

It lies under the New Market-New Product overlap in the Ansoff matrix.

What is it?

My father told me when I was just a child

"Don't put all your eggs in one basket."

The act of a dispersing investments across different industries, instruments, assets and other financial categories is referred to as diversification.

Since different entities and areas react differently to the same event, diversification is a good way to mitigate risks to minimise losses and maximise returns.

What is
Risk Management?

Risk management, in the context of finance, refers to the practice of identifying potential risks in any investment in advance, analysing them and taking precautionary steps to reduce/curb the risk.

Types of risk management

Acceptance

Even after the identification of risk, no steps of risk mitigation are taken.

Avoidance

An external party agrees to bear the consequences of the risk on the behalf of the investor/organisation on contractual basis.

Reduction

All the activities leading to the risk are fortified, in turn avoiding the risk altogether, along with all the potential returns.

Transference

Steps are taken to reduce the negative consequences of the risk to still have the possibility of rewards using various strategies.

Types *of* Diversification

Forward Diversification

GOAL

Product line expansion through a forward or backward integration of products within its existing supply chain to capture upstream or downstream profits, cut production costs and gain more revenue

METHOD

- Backward Integration: Integrate products such as raw materials and component parts
- Forward Integration: Integrate businesses and services like stores, distribution networks etc

EXAMPLES

- Ikea purchasing forests to supply its own raw materials
- Google selling Pixel hardware products

Horizontal Diversification

GOAL

Expand market share, increase appeal to existing customer base and attract new customers by introducing new products or services.

METHOD

- Integrate products such as raw materials and component parts.
- Merging with or acquiring another company.

EXAMPLES

- Disney’s acquisition of Pixar.
- Facebook’s acquisition of Instagram and Whatsapp.

Types *of* Diversification

Conglomerate Diversification

GOAL

Enter brand new market segments and appeal to new customer bases to add new revenue streams

METHOD

- Introducing products of an unrelated field to your current products.
- Introducing services of an unrelated field to your current products and services.

EXAMPLES

- Tata Group, initially a trading company, diversified into businesses including insurance, steel production and power production
- Mahindra & Mahindra Group, initially a steel trading company, diversified into automotive production.

Concentric Diversification

GOAL

Enter new market segments related to your current product line and appeal to existing customer bases to add new revenue streams by capitalising on brand loyalty and recognition.

METHOD

- Introducing products which augment the functionality of current products.
- Introducing services which run on and enhance current products and services.

EXAMPLES

- Tech companies like Apple selling smartwatches, Bluetooth headsets, phone covers etc
- PepsiCo acquiring Tropicana products to enter into bottled juice market.

Why Diversification?

In Investing

- Reduces the impact of market volatility - Owning investments across different funds ensures that industry-specific and enterprise-specific risks are low.
- Reduces the time spent in monitoring the portfolio
- Helps seek advantage of different investment instruments
- Helps achieve long-term investment plans
- Helps avail of benefit of compounding of interest
- Helps keep the capital safe

In Business

- Diversification into a number of industries or product line can help create a balance for the entity as the economy changes.
- Being diversified can help in balancing the unpleasant surprises.
- Diversification helps to maximise the use of potentially under-utilised resources.
- Certain industries may fall down for a specific time frame owing to economic factors. Diversification provides movement away from activities which may be declining.

Why
not to Diversify?

Too Complicated: Sometimes while diversifying the portfolio becomes too complicated and hence becomes difficult to manage

Below Average Returns: Over diversification leads to purchase of low return stocks which decreases the overall return of high value stocks as well.

Reduces Quality: There are many companies which provide a margin of safety. Portfolio becomes less concentrated with over diversification which can lead to missing out on best opportunities.

Bad Investment Vehicles: Investors who over diversify use investment vehicles such as index fund, or even worse, actively traded mutual funds. These investments have a tendency to focus on short term trading instead of value and hence they underperform in long run

"Diversification is for idiots"

A tale from 4000 years ago:
Assur, Mesopotamia

- Instances of diversification are as old as finance itself.
- The Assur trade was financed by loans as well as sophisticated equity trading partnerships. These partnerships were initiated by investors placing their contributions in a naruqqum (a sack) and entrusting it to a merchant.
- Investment pools generated good amounts of capital from various investors.
- It provided resources to a merchant who might not have had the resources to the trade on such a scale.
- Most importantly, it allowed investors to diversify their risk. Investing in multiple ventures insured that they didn't lose their entire money because of an unlucky expedition.

The Medici Bank

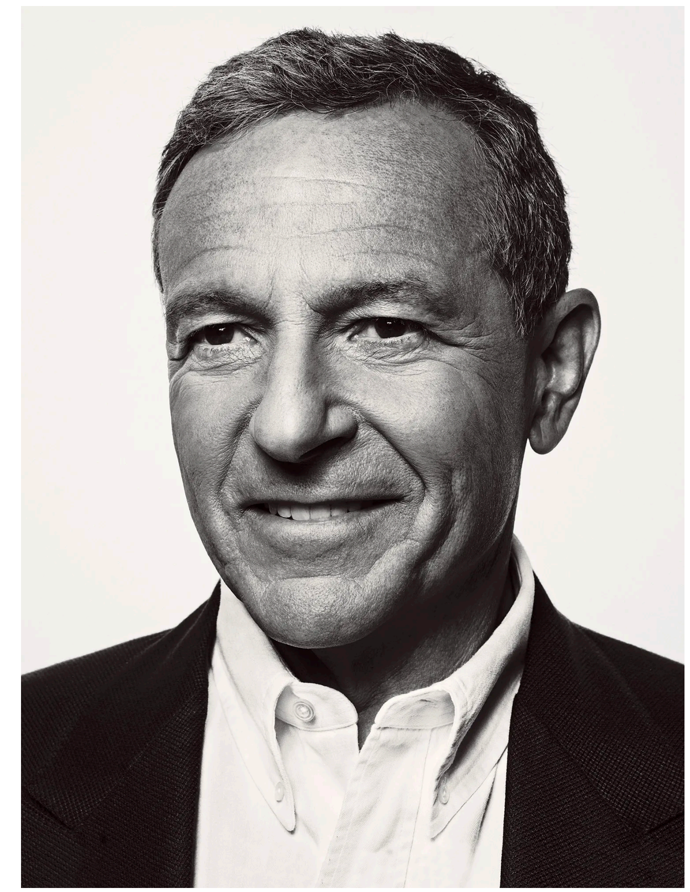
Giovanni di Bicci de' Medici

- In 1385, Giovanni became manager of the Roman branch of the bank run by his relation Vieri di Cambio de' Medici who was a moneylender in Florence.
- He established bank branches in Venice, Pisa, London and Avignon.
- The real key to the Medicis' success, was diversification and not the size.
- Even a single defaulting debtor could bring down an Italian bank, which had monolithic structures.
- The Medici bank was a partnership, with each contract being special and regularly renegotiated. Branch managers were junior partners who were remunerated with a share of the profits. This decentralisation made the Medici bank very profitable.

Disney : the comeback of an icon

- Disney was starting to slip in the early 00s with titles like “Snow Dogs” & “Home on the range”.
- In 2005, Disney promoted its COO, Bob Iger as the CEO of the company.
- Iger inspired the acquisition of Pixar, Marvel, Lucasfilm and 20th Century Fox.

From here the story began.

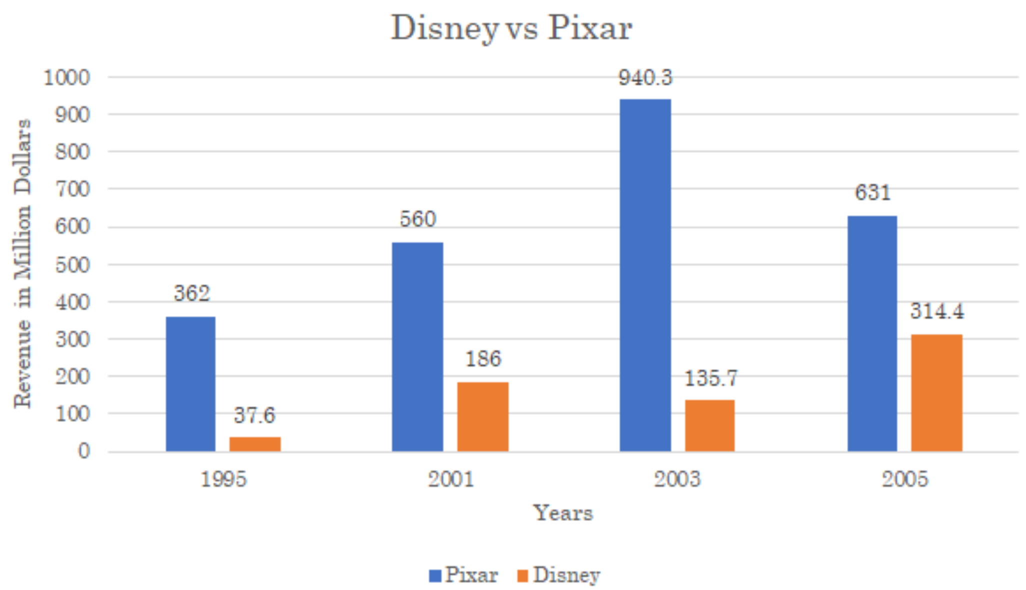


Bob Iger

Disney

1. Finding ~~Nemo~~ Animation

- Disney acquired Pixar Animation Studios in 2005 for $7.4 billion dollars.
- Pixar was a well-established and reputed brand. Its movies, “Finding Nemo” and “The Incredibles” had also won two academy rewards.
- The timing was perfect as Disney’s own animation department was performing well.
- It was beneficial for Pixar as well, as now it could focus on its core strength : computer animation and let Disney worry about the rest.

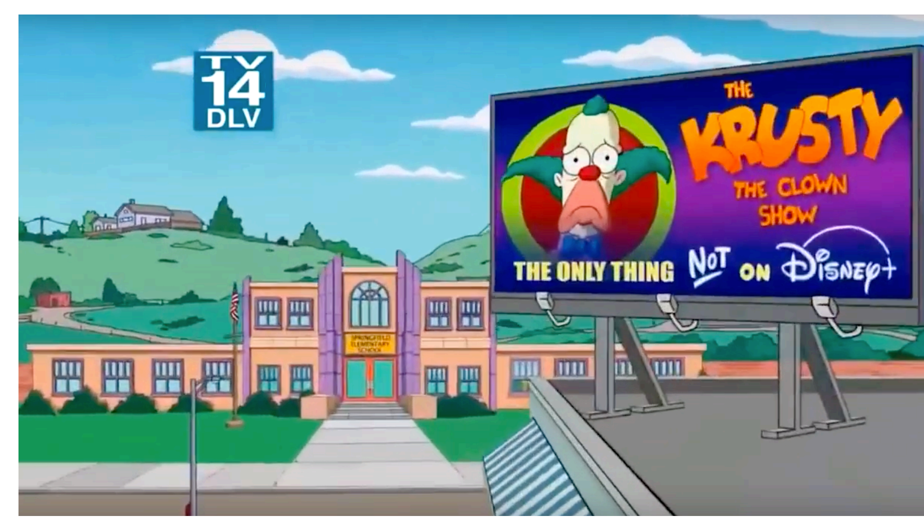


2. ~~Avengers~~ Revenue assemble

- Disney movies were failing to attract the teenage and young adults.
- In 2009, Disney made the move and bought the comic book company for $4 billion.
- It got Disney a treasure trove of almost 5,000 characters with already well established fan bases.
- It also allowed Marvel to successfully enter the movie business.
- The deal turned out to be pretty successful for Disney, as Marvels movies alone have earned close to $20 billion dollars at the box office.

3. Catching the Fox

- In 2019, Disney made its biggest acquisition yet, it acquired 21st Century Fox for $71 billion.
- Disney was planning to release its streaming service, so acquiring fox was a smart move as it now has access to fox's large library as well.
- It got to release popular titles like "The Simpsons", "The Princess Bride", "Malcolm in the middle", which made attracting initial subscribers easier for Disney.
- It also got the production rights for the famous "Avatar" sequels.

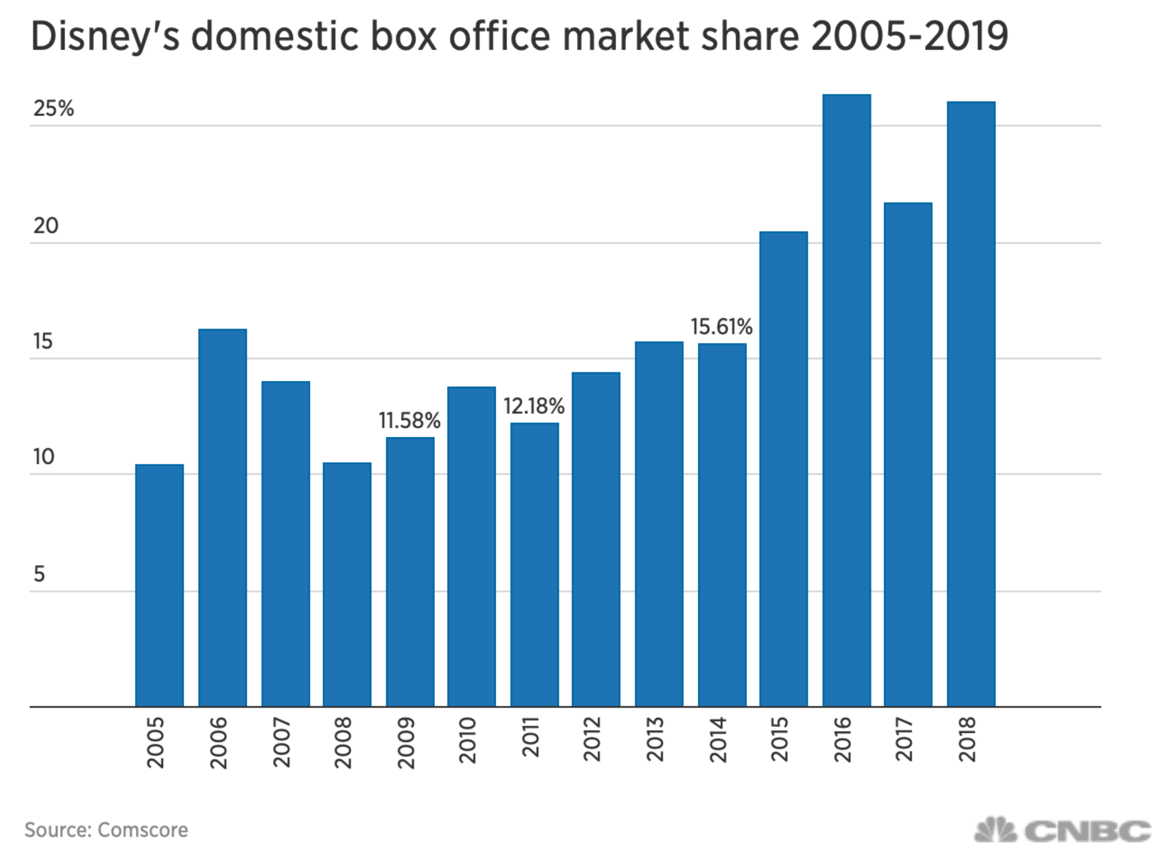


4. May the ~~force~~ cash be with you

- In October 2012, Disney purchased Lucasfilms for $4.05 billion.
- With Avengers already under its belt, this deal made Disney get the world renowned Star Wars movies under its name, its sequels have earned billions at the box office for Disney.
- Disney also made money through DVD, BluRay and digital sales, along with the Star Wars apparels, toys and novelisations.
- Disney now has also opened two Star Wars themed park lands in the United States

The Impact

- These acquisitions have minted around $40 billion for Disney at the box office.
- Disney now has almost 38% share of the US box office earnings.
- Apart from this, it now caters to a lot wider demographic, growing from its image of a child-only brand.
- Disney shares have risen by 450% from $25 per share in 2005 to $140 in August 2019.



Reliance Industries : Background

- Started by Dhirubhai Ambani in the year 1973. The Reliance industries traversed from polyester business to financial structure, infrastructure, power and communication industry.
- The average annual turnover was of $13.7 Billion
- The company was split between the two brothers Mukesh Ambani and Anil Ambani in the year 2005. Mukesh Ambani got the control over oil, gas, petrochemicals, refining and manufacturing parts of the business.

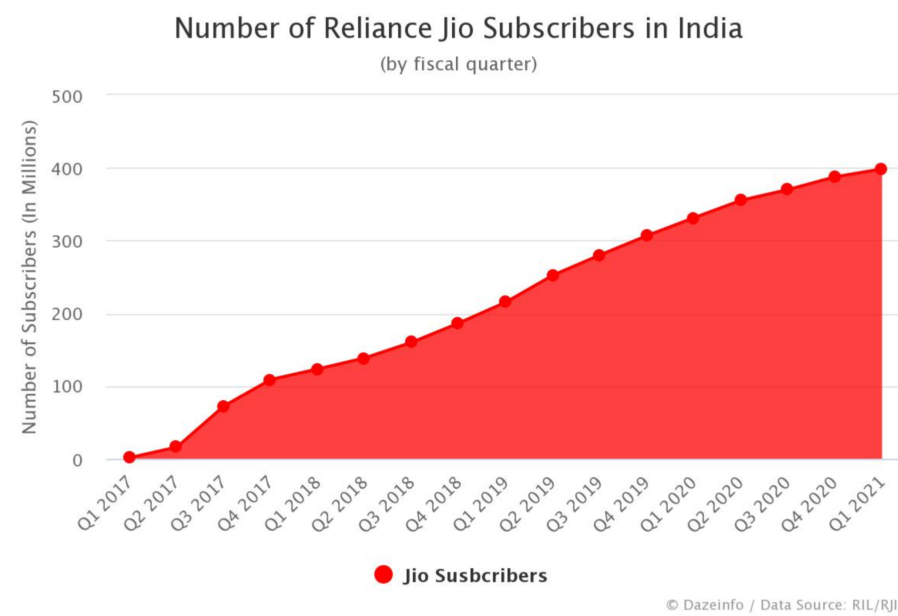
Reliance
Industries Limited

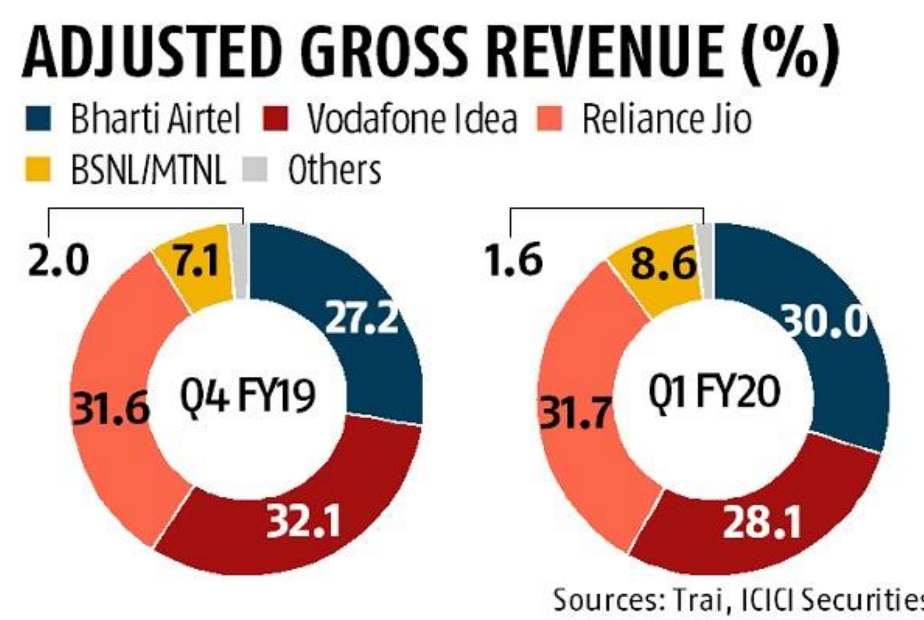
The origin of Jio

- In 2010 Mukesh’s Ambani acquired Infotel Broadband in 2010 to enter the telecommunications market
- In September 2016 Reliance released the world's cheapest internet service provider, Jio. Origin of Jio dwarfed all its other competitors and forayed into uncharted water.
- Jio gave lifetime voice calls and free data for initial 3 months of release.

Growth of Jio in the Indian Market

- In 9 months Jio had 108 million users out of which 72 million paid for Jio Prime Membership.
- In 2020 the market share of jio was 31.7%
- Currently Jio holds 32.04% share in the telecom industry with over 1.15 billion active users .
- With the occurrence of Jio many small telecom operators either stopped their services or have merged with the bigger companies. For example Telenor India was acquired by Airtel.
- Currently there are only three major telecom competitors in the Indian market: Jio, Bharti Airtel and Vodafone Idea





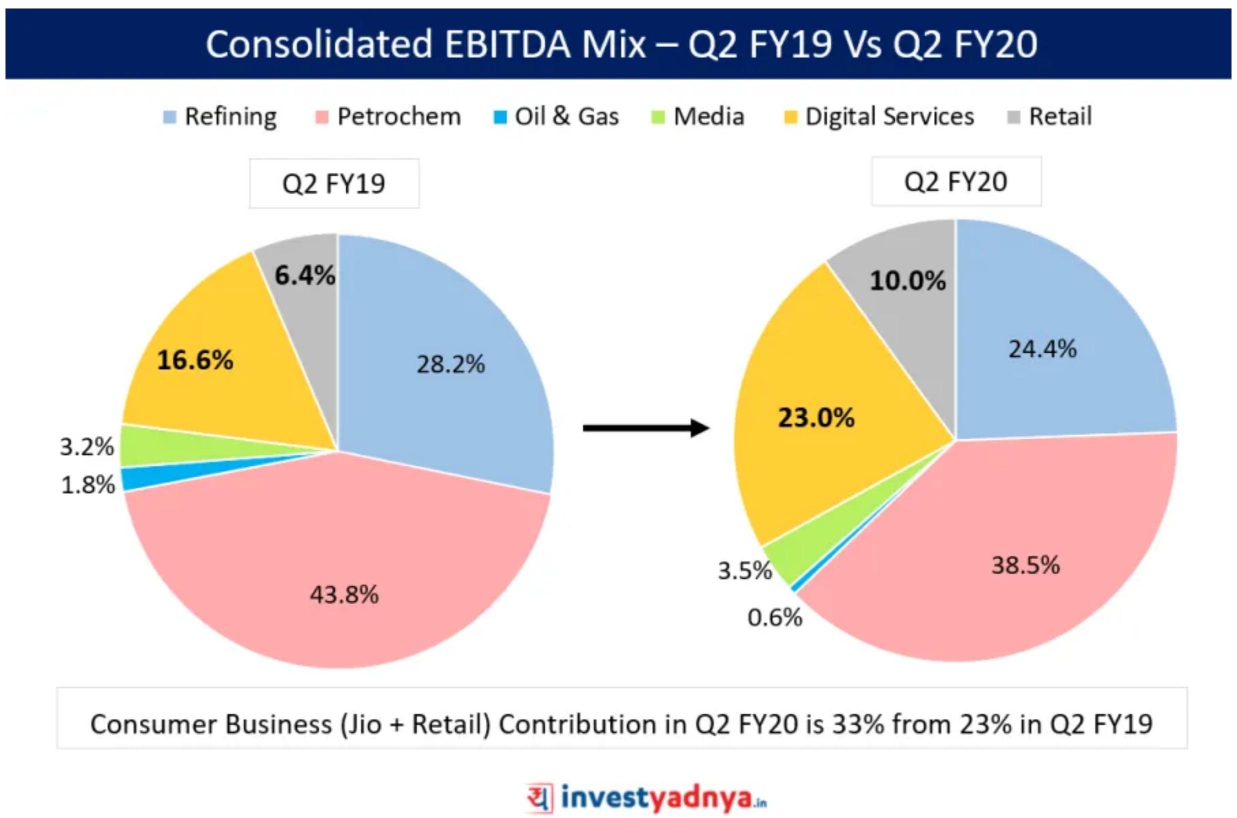
The diversification of Reliance Industries

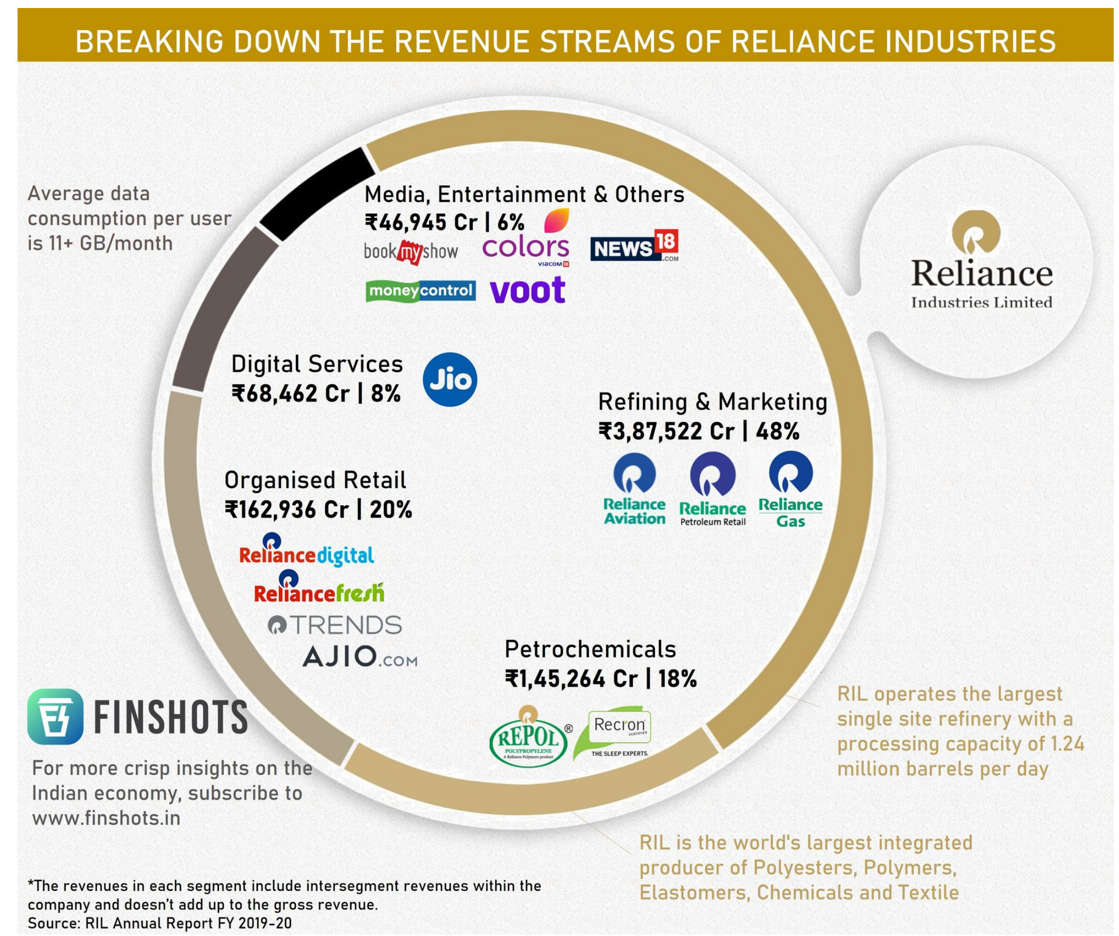
- Apart from the Telecommunications sector, Reliance has diversified into many businesses. Some of them are:
    - Retails Brands: Reliance Digital, Reliance fresh, Reliance Smart, Reliance Digital etc
    - Textile Brands: ONLY VIMAL, H. Lewis etc
    - In-Store Brands: John Players, LYF mobiles etc
    - Digital Services: Jio Tv, Jio Cinema, Jio Saavn, Jio Tv etc
- Reliance has also invested in various other brands and industries such as Hamleys, Diesel, Armani etc

Reasons behind diversification into telecommunications sector

- Technology sector was one of the most fast growing industries. With the split of Reliance Industries between Mukesh and Anil Ambani in the year 2005, The Reliance Telecom Industry was given to Anil Ambani. The major stack of Mukesh Ambani's industry was of petroleum and petrochemical products. Hence to stay in the telecom industry was essential for Mukesh Ambani.
- Reliance Industries entered into telecom sector with Jio and by giving free services for initial time period it gained its popularity and eventually went on to becoming the biggest telecom provider in India.

Contributions in the Total Revenue





The

Not So Commonly-Known Ones

NYTimes

New York Times acquired the Baseline Studio Systems, a leading online database and research firm for the film and television industry. The aim of this diversification was to neutralise the effect of rising newsprint costs. The case, while providing an overview of the two companies, discusses the strategic shift of the traditional print media to the online media.

SUCCESS

Starbucks

Starbucks, the most renowned international chain for coffee acquired Hear music to enter into music retain market. This diversification was extremely successful. It became recognised music retail due to success of the albums of Bob Dylan and Ray Charles.

SUCCESS

BIC

But in 1989, the company introduced perfume line, called Parfum Bic with $20 million in marketing. It had to be scrapped just a year later after losing nearly $11 million. In 1998, BIC tried again to expand their product line with a line of disposable undergarments. This also failed to establish themselves at shelves and was a failure.

FAILURE

Harley Davidson

Harley Davidson tried manufacturing bakery decoration products and introduced a perfume line, but both the segments faced severe backlash from its audience. It was a failed move.

FAILURE

A Case Study
Performance Diversified

In this section, we aim to analyse three hypothetical portfolios: diversified portfolio of 70% stocks, 25% bonds, and 5% short-term investments; an all-stock portfolio; and an all-cash portfolio. We will see how they react to different market conditions.

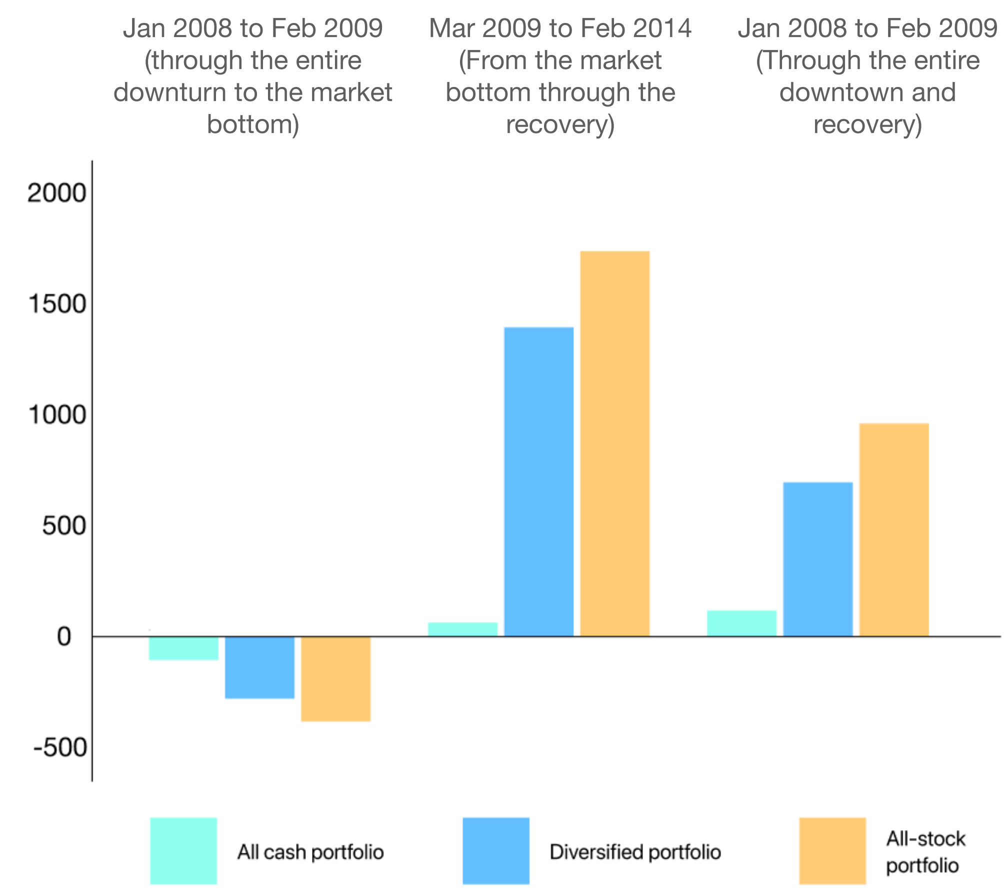
The chart analyses the performance of the portfolios during three different time periods exhibiting different market trends. All the charts follow data from Morningstar/Ibbotson Associates.

We observe that the all-cash portfolio performed the best in the period of downturn leading to the market bottoming out but it also does not give any returns during the recovery phase.

The all-stock portfolio gave the best returns as the market recovered but it also incurred the highest losses when the market bottomed out.

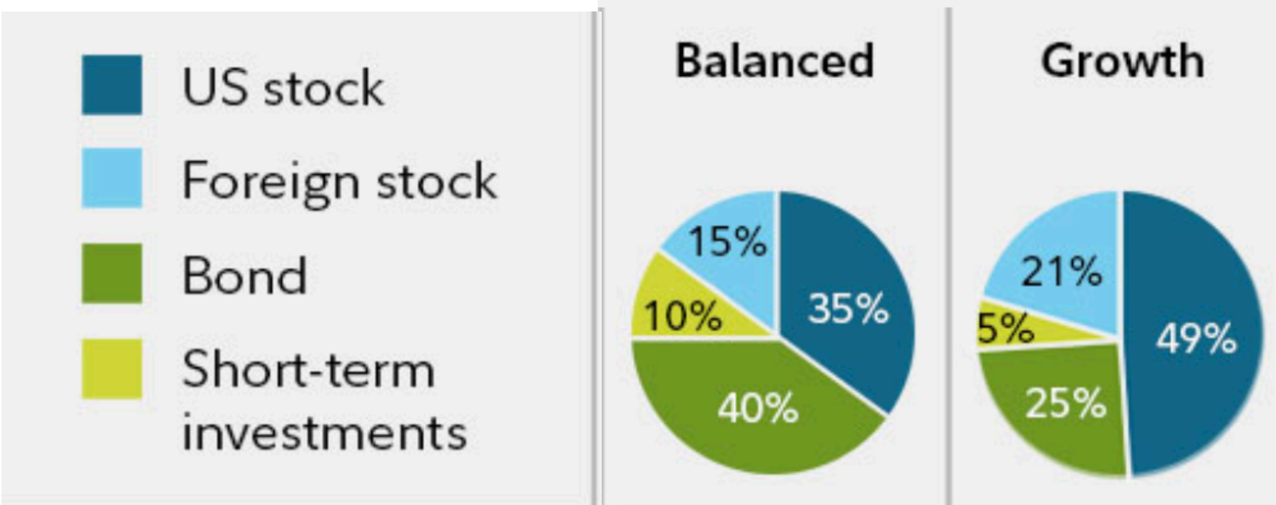
The diversified portfolio performed better than the all-stock portfolio and incurred less losses during the downturn.

We see that while an all-cash portfolio avoided the risk entirely, the diversified portfolio exposed the investor to the market growth while effectively managing the risks of the market.



A Case Study

Performance Diversified



	Balanced	Growth
	Annual return %	
Average annual return	7.98%	9.00%
Worst 12-month return	–40.64%	–52.92%
Best 12-month return	76.57%	109.55%
Worst 20-year return (annualized)	3.43%	3.10%
Best 20-year return (annualized)	13.84%	15.34%
Historical volatility	9.56%	13.07%

In this section, we analyse two portfolio with varying levels of diversification and their risk and return under different conditions.

All the data is taken from Morningstar Inc.

An investor can invest in different investments and achieve different target mixes according to his goals.

We see the general trend that a balanced diversified portfolio performs better under worst-case considerations, mitigating risks more effectively.
A growth focused portfolio, being more volatile, gives better results in best-case conditions but incurs more losses as market trends shift against the favour of the investments of the portfolio.

References

1. https://www.investopedia.com/terms/d/diversification.asp
2. https://www.lightercapital.com/blog/what-is-diversification-strategy-definition-examples/
3. https://bstrategyhub.com/what-is-a-diversification-strategy-its-types-and-why-is-it-important/
4. https://www.ideagen.com/thought-leadership/blog/what-is-a-risk-management-strategy
5. https://casereads.com/case-study-of-reliance-an-unconventional-diversification-story/
6. https://www.angelbee.in/mutual-fund-basics/how-does-diversification-help-you
7. https://efinancemanagement.com/mergers-and-acquisitions/diversification
8. https://www.arborinvestmentplanner.com/disadvantages-of-diversification-in-investing/
9. https://books.google.co.in/books?id=xIi9DgAAQBAJ&pg=PA60&lpg=PA60&dq=Kārum+merchants+of+assur+were+called+timkārum&source=bl&ots=rUTC4_Pe-g&sig=ACfU3U35VbSI8J-TMlIdh20nPhgtn_ShbA&hl=en&sa=X&ved=2ahUKEwi0r-Dw2PfyAhVk7XMBHaYGBzsQ6AF6BAgCEAM#v=onepage&q=Kārum merchants of assur were called timkārum&f=false
10. https://www.tandfonline.com/doi/abs/10.1080/00076797900000004?journalCode=fbsh20
11. http://www.worldhistory.biz/download567/Ferguson,_Niall_-_The_Ascent_of_Money__A_Financial_History_of_the_World_(Penguin_Press__2008).pdf
12. https://www.cnbc.com/2019/08/06/bob-iger-forever-changed-disney-with-4-key-acquisitions.html
13. http://www.ibscdc.org/Case_Studies/Strategy/Diversification%20Strategies/DIS0024B.htm
14. http://www.ibscdc.org/Case_Studies/Strategy/Diversification%20Strategies/DIS0022K.htm
15. https://nextbigbrand.in/reliance-industries-diversifying-business-with-acquisitions/
16. https://www.moneylife.in/article/will-reliances-diversification-strategy-pay-off/20075.html
17. https://www.livemint.com/market/mark-to-market/diversification-pays-off-handsomely-for-ril-as-reliance-jio-befriends-facebook-11587533916201.html
18. https://marker.medium.com/how-jio-became-the-darling-of-silicon-valley-4ad5aab7949f
19. https://www.ril.com/OurCompany/ProductsAndBrands.aspx
20. https://blog.investyadnya.in/reliance-industries-ltd-q2-fy2019-20-results-update/
21. https://finshots.in/infographic/reliance-industries-crosses/
22. https://getlucidity.com/strategy-resources/examples-of-weird-diversification/