Analytics, Strategy and Change: BUSM4810

Assessment 1: Business Report

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Content of the Report:

Introduction:

In this digital era, many organisations avoid adopting the advanced technology which make them behind compared to other organisations due to many challenges and pitfalls. Today, one business report will be generated based on one company which name is Finserv. Here, Finserv's current situation including background, data analytics capability, challenges and enablers will be discussed. Apart from this, some best practices from literature research will be explored as well as Finserv's best practices will be compared to find the actual gaps and barriers which make Finserv behind in relation to invest, flexibility and efficiency. Eventually, the recommendations will be depicted added with analytical capability maturity model, ease/hard to implement matrix, continuous improvement learning structure.

Finserv's background:

Here, Finserv is a medium-sized financial services company consisting of a Head Office and four divisions each headed up by a divisional Executive. The Divisions are all in the same geographical area, but each division focuses on a different service line. The divisions share several customers who purchase a range of services from more than Division. The Head Office consist of Departments such as the MD's office, Human Resources (HR), Finance, Risk and Audit, Marketing, IT Services. The structure of the company provides a large degree of autonomy to Divisional Executives to run their divisions as profit centres with the Head Office Departments providing support and a coordinating role across Finserv. This structure worked well in the past, but the Board and MD now have concerns about whether the Division's profit centres offer the flexibility, efficiency, and customer service in a globalised, dynamic, and highly competitive and price -sensitive trading environment.

Finserv's data analytics capability:

MD explained that Finserv is left behind compared to other companies who are increasing their investment and capability in data analytics which makes them more efficient and competitive in today's market. The board agreed that Finserv needed to improve the data analytics capabilities to improve customer service and efficiency. Finserv has also limited data analytics information which is informal based on policies and processes. They are using data analytics infrastructure that includes some collaborative tools where descriptive analytics are prioritising rather than predictive analytics. Finserv's Governance body is fixing IT/business relationships on more efficient decision-making. IT project direction is contributing with senior management level. Apart from this, Finserv also sets a vision with the short-term goal.

Finserv's challenges and barriers:

There are many challenges have been found during research about Finserv. Finsev's silos limit the sharing, accessing and use of data across the company which is reducing its value and impact. Finserv's people and teams need more skills to understand the value and opportunity that offered by data which is their internal concern as they are showing their limitation of their own learning pace. Due to poor data processing, higher risk can be caused using manual data processing, and biased data. Though technology transformation is fast in Finserv organisation, but it has some lacking to adopt the advanced technology across the entire team which is found as an external challenge.

Finserv's enablers:

- Finserv use data analytics to drive efficiency, productivity, and competitiveness.

- Finserv makes decisions with data and empirical evidence as well as leverage data and cutting-edge technologies to transform how they work, predict activity and target outcomes.

- Finserv build confidence, trust, and shared accountability with employees, managers, and stakeholders to enable the use of quality data.

- Finserv embraces diverse perspectives, and tools as well as reduces bias and promotes people's ability to make data-driven decisions.

- Finserv build prototypes, enable learning and scaling, and create a positive culture.

- Finserv partners with stakeholders (such as suppliers, consultants, customers) on data initiatives, identifies common goals and vision, and aims to achieve collective benefit.

- Finserv empower their people by reskilling and enabling them to read data, work with and analyse data and use data to improve decision making.

Best Practices from literature research:

1) Using the mature data governance such as adaptive data governance enhance greater flexibility (Milone 2023). It aids leaders to take informed decisions with long-term data governance goals (Goasduff 2022). Apart from this, the right data governance metrics such as data quality, data literacy and accountability will help organisation to understand the value of data (Khan 2022).
2) Building easy models rather than complex models that predict and optimize business outcomes. The big data analytics can minimize the problem of having multiple stakeholders using centralised approach in structural organisation (Capgemini Consulting 2014).
3) Transforming the organisation into digitization by making the hardware and software tools available to the business teams to assist them and organise data as well as to determine most appropriate solutions (Barton and Court 2013).

4) To manage the risk for security and privacy, many companies are using multiple data protection laws, locked mailbox, encrypted data, and strong password to protect their personal data or PII (personal identifiable information) (FRANKENFIELD 2022).

Figure: Managing encryption

5) Companies set full package together such as technology innovators, data providers and analytical companies to bring the business colleagues and partners closer in terms of accomplishing co-learning and training (QuantumBlack AI by McKinsey 2016). For instance, Leading organisations such as Capgemini is helping their employees in the best way which recommend them to have further education or training that are Capgemini's business objectives.
6) "Smart organisations are adopting multi-pronged strategy not only on hiring and training but also analysing informal channels to source talent for data analytics (Capgemini Consulting 2014). Apart from this, many companies are sourcing and developing the talent in the area of descriptive analytics but also, they are looking for analysts who are capable of creating predictive and prescriptive insights (Accenture 2013).
7) Data needs to be observed as an asset by all employees in the company, rather than something to be dealt with by the IT or a "data" team. Apart from this, Dell Technologies has created a real-time dashboard to give executives real concepts about the multitude of data (Capgemini 2020).
8) To make balance between 'a number of mindset and cultural attributes, leaders must be willing to have their assumptions and beliefs challenged by data'(Capgemini 2020).
9) In this revolution, IT organisations are using agility and innovative approach to make more fluid and flexible organisation (Bhalla et al 2017).
10) Vijay state that organisations need to invest in the data assets including required infrastructure such as cloud to make the organisation more data driven (Capgemini 2020)." (as shown in appendix A).

Findings:

Summary of gaps in data analytics capability:

- During research about Finserv, it is found that Finserv is using descriptive analytics rather than predictive analytics which is purposeless process for this organisation as they are taking initiatives for the next two years. Here, predictive analytics uses many

statistical data and machine learning algorithms to predict the future outcome (Sas 2023).

- As the divisional executives are from different service line, there is a major gap between the trust and the divisional executives at Finserv (Capgemini 2020).
- Here, it is observed that Finserv is left behind in investing on data and analytics compare to other companies whereas other companies' major investments are going for data and analytics part which has been found from the following chart (Goasduff 2021).

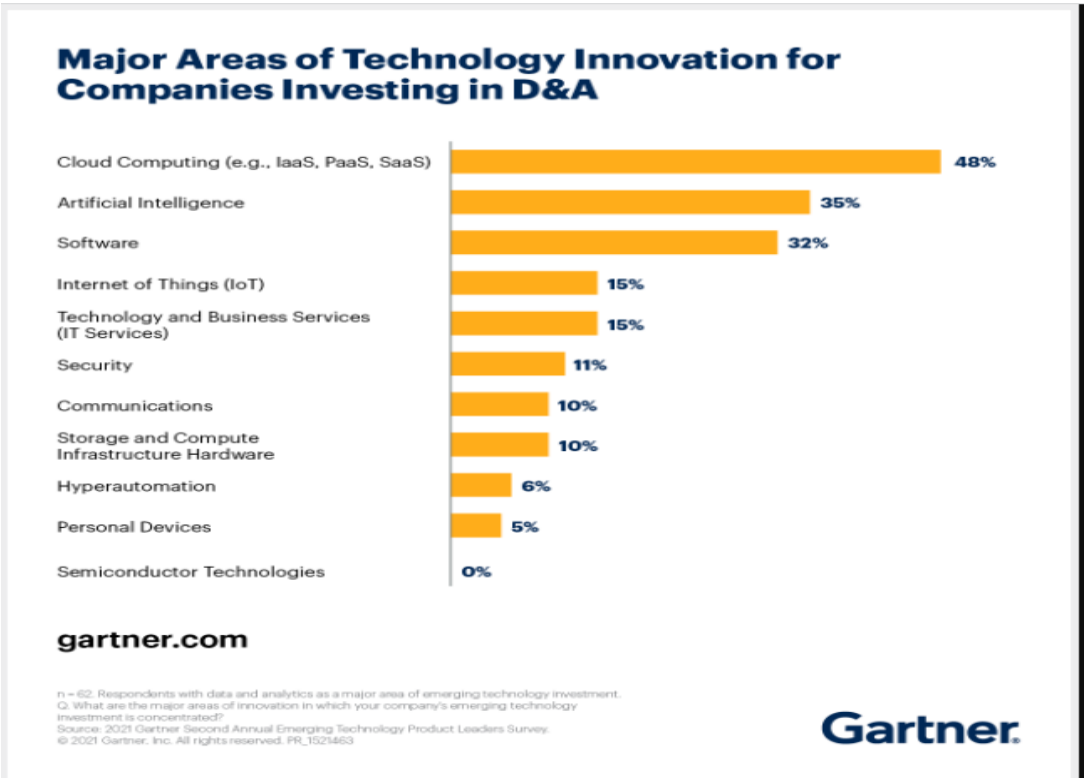

Figure: Major areas of Technology Innovation for Companies Investing in D& A, Gartner website. [data-and-analytics-technologies-that-drive-investment-0.png (1330×1344) (gcom.cloud)]

Best Practices to address the gaps:

- Finserv reveals that it has leadership capabilities using data analytics to drive efficiency, productivity, and competitiveness although Finserv hasn't provide any transparent information regarding big data leaders. Here, big data leaders help to uncover new insights and business decisions as well as use centralised approach to embed the insights across the organisation and globally (Capgemini Consulting 2014). In this case, centralised operating model provides specific executive function, easier data governance and improved decision-making (Analyticss8 2023).
- Finserv is represented that their people are reskilling and enabling to read the data, but Finserv did not specifically reveals about reskilling process such as training or educating people based on their advanced technology or big data analytics (Analyticss8 2023).

- Though Finserv highlighted their inclusivity and trust, but it has some silos which make bottlenecks with sharing and accessing the uses of data as the right data governance are comprised of consistent data, data ownership and business value (Khan 2022).

Barriers that need to overcome:

- Finserv is struggling with change management process where people are staying behind to show their own pace to learn and adopt industry 4.0 technology which can be named as big data talent gap (Capgemini Consulting 2014). To overcome this societal challenge, Finserv can hire external role who can be a role model for change where existing staff can form a strong support network for new hires (Arbulu et al. 2018).
- "Data collection is delayed that need to overcome as 'data collection is a key challenge for organizations'(Capgemini 2020).
- As Finserv is focusing on big data analytics processes, it needs to be restructured with cultural change and adoption as well as generate the new legacy for advanced technology.
- At Finserv, from executives to individuals need to open their mind or start their own pace to learn about advanced technology" (as shown in appendix B).

Enablers that can facilitate required actions:

- Better data that are consistent and provide company's transparent information which can be both quantitative and qualitative data (Barton and Court 2013).
- IT support that helps to operate with the new data or big data capabilities (Barton and Court 2013).
- Operating models that are not complex and identifies business opportunities as well as interpret how the model can develop the performance (Barton and Court 2013). In summary, operating models that are aligned with business strategies (Analyticss8 2023).
- Deploying the right technology that are transparent to all stakeholders using story-telling techniques such as real-time dashboards (ABSOLUTDATA 2016).

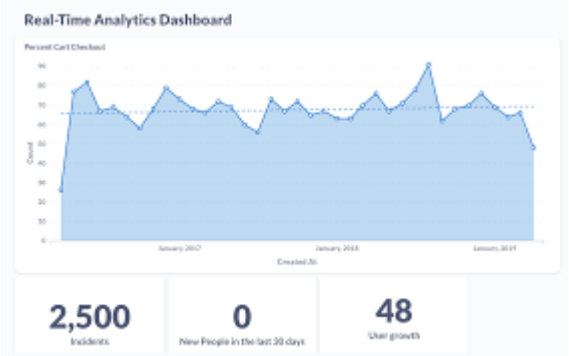

Figure 2: Real-time analytics dashboard.

- “Invest for industry 4.0 revolution to get agility and flexibility in data activation (Capgemini 2020).
- Manipulated data and analytics through DataOps or data operations and MLOPs or machine learning operations (Capgemini 2020).
- Adapt data governance as data mastery amplification where data master depicts as data foundations known as tools and technologies as well as data behaviours that relates to the DNA of the organisation and people, skills, and culture (Capgemini 2020).
- Data strategy with proper vision and roadmap (Analyticss8 2023).
- Analytics teams at the data masters spend less time in cleansing data (Capgemini 2020)” (as shown in appendix C).

Recommendations:

One of the following ways has been selected by prioritizing recommendations that provides informed decisions to bring Finserv organisation to expected maturity level.

Short term:

1) Finserv team should understand their net business problems in terms of developing the analytical strategy in 4 weeks (Analyticss8 2023).
2) Within 2 months, FinServ needs to identify the right data to reduce the operational cost and transfer this data to the data warehouse (Barton and Court 2013).
3) Finserv can hire analytical talents or big data leaders for four divisions who can be role models for the existing staff to help to make understand about the hardware and software tools proactively within 3 months (Capgemini Consulting 2014). During this recruitment, Finserv can use ‘data lab’ approach which is an ‘incubation structure’ to consolidate ‘internal and external talent to promote cross-fertilization’ and co-operation (Capgemini Consulting 2014).
4) Finserv can arrange training and educational programs in relation to advanced analytics to extend the knowledge and skills of the existing individuals by following the knowledge management process in 8 weeks (Capgemini 2020).
5) Within 10 weeks, Finserv should identify the right technology such as big data analytics to build an accurate model which will be

understandable from front line executives to all employees (Capgemini Consulting 2014).

6) Create a draft analytical strategy with an appropriate model such as centralized model with the help of the IT support team to provide appropriate solutions within 12 weeks (Barton and Court 2013).
7) Restructure the data governance strategy and metrics by following data governance frameworks to improve decision making as well as security and compliance across the organization within 4 months (Khan 2022).

Long Term:

8) Within 1 year, Finserv's business teams will maximize ROI from the implementation of new data analytics capability using MLOPs operationalized data which will increase the net profit at least 15% (Capgemini 2020).
9) In 24 months, data strategies will be implemented by following the road map and the analytical team which will be readable and acceptable across the organization (Analyticss8 2023).
10) Within 18 months, Finserv will generate a recommendation engine using machine learning algorithms to obtain customers feedback adequately and increase the customer retention rate by at least 10% (Capgemini 2020).
11) Within 2 years, Finserv can transfer all the data analytics infrastructure to the cloud to meet the vision and collect the data in a timely manner which can also reduce the cost by at least 35% for the organization (Amazon 2023).
12) In 1 year, all the descriptive analysis should be transferred into predictive analysis where Finserv can also use machine learning algorithms to predict the future outcomes and aware about revenues and profits. As Finserv has a long-term view for its organizational structure, it can help Finserv to minimize the additional and operational cost minimum 10% (Cote 2021).

Ease / Impact Matrix and priority of the recommendations

The following shows the impact and the complexity of the implementation for each of the recommendations above. This can be used to prioritise the recommendations.

	Hard to Implement	Easy to Implement
High Impact	3,4,8,9,10,12	1,2,5,6,7
Low Impact		11

As such, the recommendations should be prioritised in the following order of high to low priority. 1, 2, 5, 3, 4, 6, 7, 8, 9, 10, 12, 11

Continuous learning andimprovement

Recommendation	Plan	Do	Check	Act
1. Finserv team should understand the business problems and opportunities.	Identifying the problems and the opportunities.	Implementing the analysis for the above problems.	Checking or assessing if the Analysis solved the issues and created new opportunities.	Researching and Implementing data analysis strategies to solve more problems.
2. Identify the right data and move them into a data warehouse.	Identify the right data, its location And to reduce the operational cost.	Transfer those data into the data warehouse.	Checking about the analyzation which would be less due to single location.	Moving more data increasingly into the data warehouse that can reduce operational cost.
3. Hiring big data talent or big data leaders to be a role model for existing employees.	Help to make understand about hardware and software tools and technologies.	Help to make understand using real-time dashboard and story-telling techniques.	Check or assess If the internal stakeholders understand and implement the analytical strategy properly.	Continually assess and communicate with the internal stakeholders by following capability maturity model. refine the draft
4. Arrange the training program in relation to develop internal analytical skills.	Using Knowledge management process to deliver adequate skills.	Implement the process across the organization.	Checking for the right process are implementation.	Focus on the process implementation adequately.

5. Identify the right technology to build the accurate model.	Model needs to be understandable to all stakeholders.	Implementing the right technology such as big data analytics.	Checking the technology for acceptable models.	Monitor all the time to update the technology.
6. Create a draft analytical strategy with appropriate model.	Develop a draft.	Implement the draft with having all stakeholder's approval.	Check it is suited across the organization.	Continuous monitor.
7. Governance strategy.	Develop a governance requirement.	Identify the governance rules.	Create the rules address the compliance and security requirements	Check if the conduct periodic audits in the data and the insights to make sure they comply to the governance rules
8. Increase the net profit by 15% using machine learning algorithms.	Identify the data that affects demand in one product	Develop an analysis algorithm to predict demand and adjust production	Check if the actual demand matches to predicted demand if the profits are up by 15%	Iterate the predictions to other product lines / functions
9. Data Analytics strategy will be implemented through the analytical team and using roadmap.	Plan to implement to analytical strategy by analytical team.	Implement the analytical or data strategy.	Check if the strategies are more effective now.	Continuous focus on data strategy using the roadmap.
10. Using recommendation engine	To increase customer retention rate at least 10%.	Implement the engine	See if the retention or customer srevice improves.	Use iterative approach to improve the rate gradually.
11. Move data to the cloud	Identify the first part that needs to go to the cloud	Move that data to the cloud	Check if the IT cost less that it used to be	Move the rest of the data to the cloud
12. Transfer descriptive	Using MLOPs operationalise	Implement the algorithms to	Check the outcomes of 2	Continuously monitor the

analytics to predictive analytics.	d data to predict future outcomes.	predict future outcomes.	years which is required for Finserv organization.	process.

Conclusion:

“In this industry revolution age, every employer should update their organization to walk with this trend horizontally. To accomplish this goal, Finserv organization also needs to take some steps to make their organization entirely data-driven or uptaded. From the above observation, it is represented that Finserv organization needs to change some corner such as developing people and cultural mind, technology and strategies in relation to data which have been discussed through the above best practices and recommendations. It is recommended that if Finserv follow the above best practices and recommendations, they will obviously be competitive in today’s market” (as shown in appendix D).

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