



Is Machine Learning the future of finance?

**Five projects to transform the
Asset Management sector**

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In midst of the significant loss and disruption, COVID-19 may bring a silver lining as the closing of offices and workplaces create an appetite for digital transformation. This may change the tone for future business operations in every sector, but in particular the asset management. The urgency for remote working continuity plans has brought asset management companies to a crossroads of the use of Machine Learning (ML) to remove inefficiencies and produce real-time insights or divest clientele who will move to the next best performer in the industry. As face-to-face meetings, which were essential to the smooth operation of many asset management companies, are no longer an option, management grapple to find alternative ways to maintain communication and transparency.

Machine Learning is a form of predictive modelling where computers use large datasets to find patterns and apply them to infer future trends (PwC).

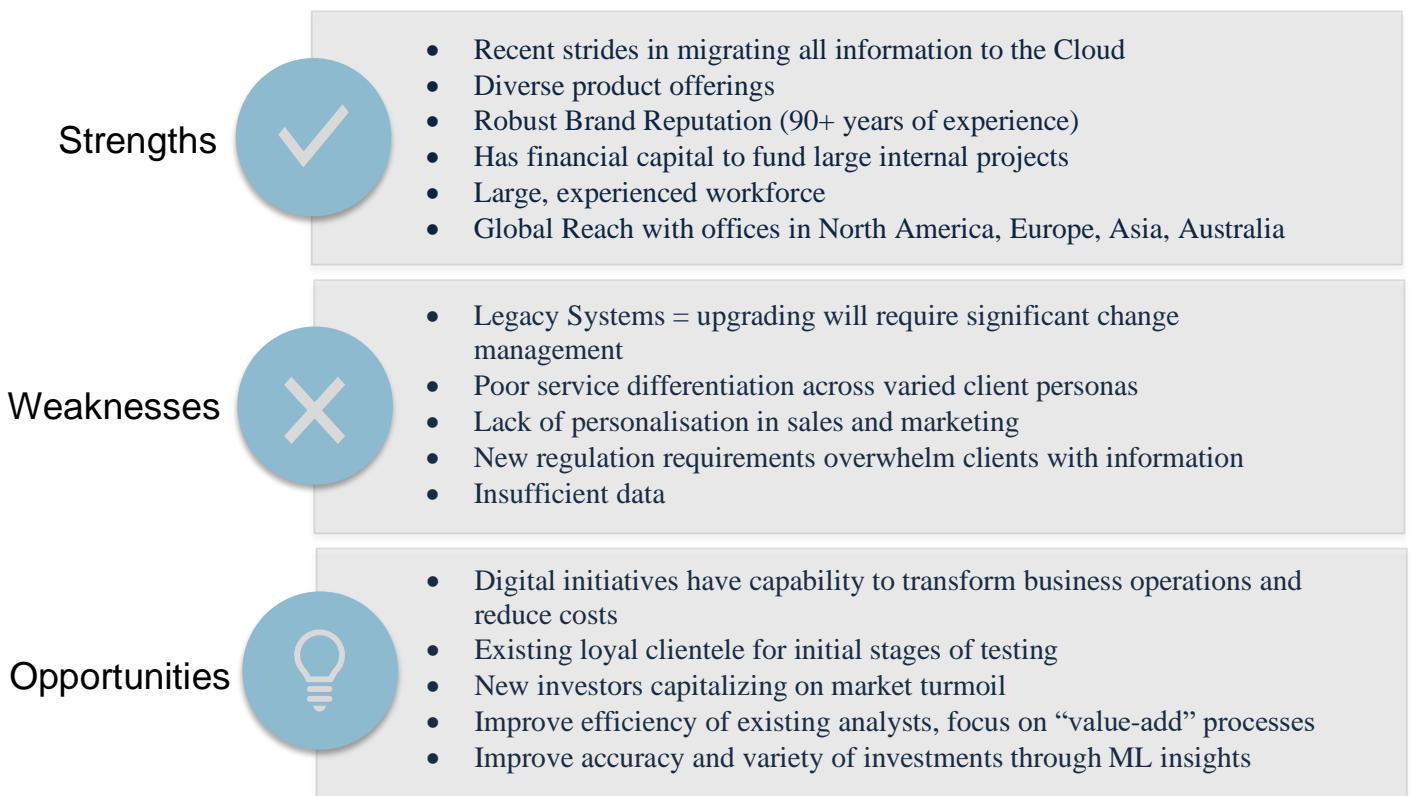
Traditional quantitative methods in asset management can be significantly enhanced with greater accuracy in less time through use of ML.

Using a global, well renowned asset management company as a case study, this report proposes how ML could be implemented within the field to achieve strategic change and business objectives. For privacy reasons, the company is anonymised and referred to as “AMC” in the following sections.

Organisational Context

In order to better recognise how AMC could implement Machine Learning, a SWOT analysis was executed which summarises its competitive position, current strategic weaknesses and opportunities for growth (see Figure 1).

Figure 1: SWOT Analysis



Threats



- Robo-platforms e.g. Betterment, offer investment advice at lower cost, greater control and ease
- Major Players in Asset Management are investing into digital transformation e.g. BlackRock, JPMorgan so risk of being left behind
- Loss of clientele due to current economic climate
- Existing market of 60+ retiring investors are being replaced by younger, more digital generation of self-made or inherited wealth

Dating back to 1924, one of the most distinguished asset management firms, AMC developed an extensive global network of loyal clientele. Through this global base and expertise, it has the capability to compete against market leaders such as BlackRock and Morgan Stanley. However, disruptive technologies such as roboplatforms and a technologically savvy wealthy demographic is hindering its growth. Its earnings per share is \$0.66, anemic in comparison to BlackRock's \$5.15 (MacroTrends, 2020).

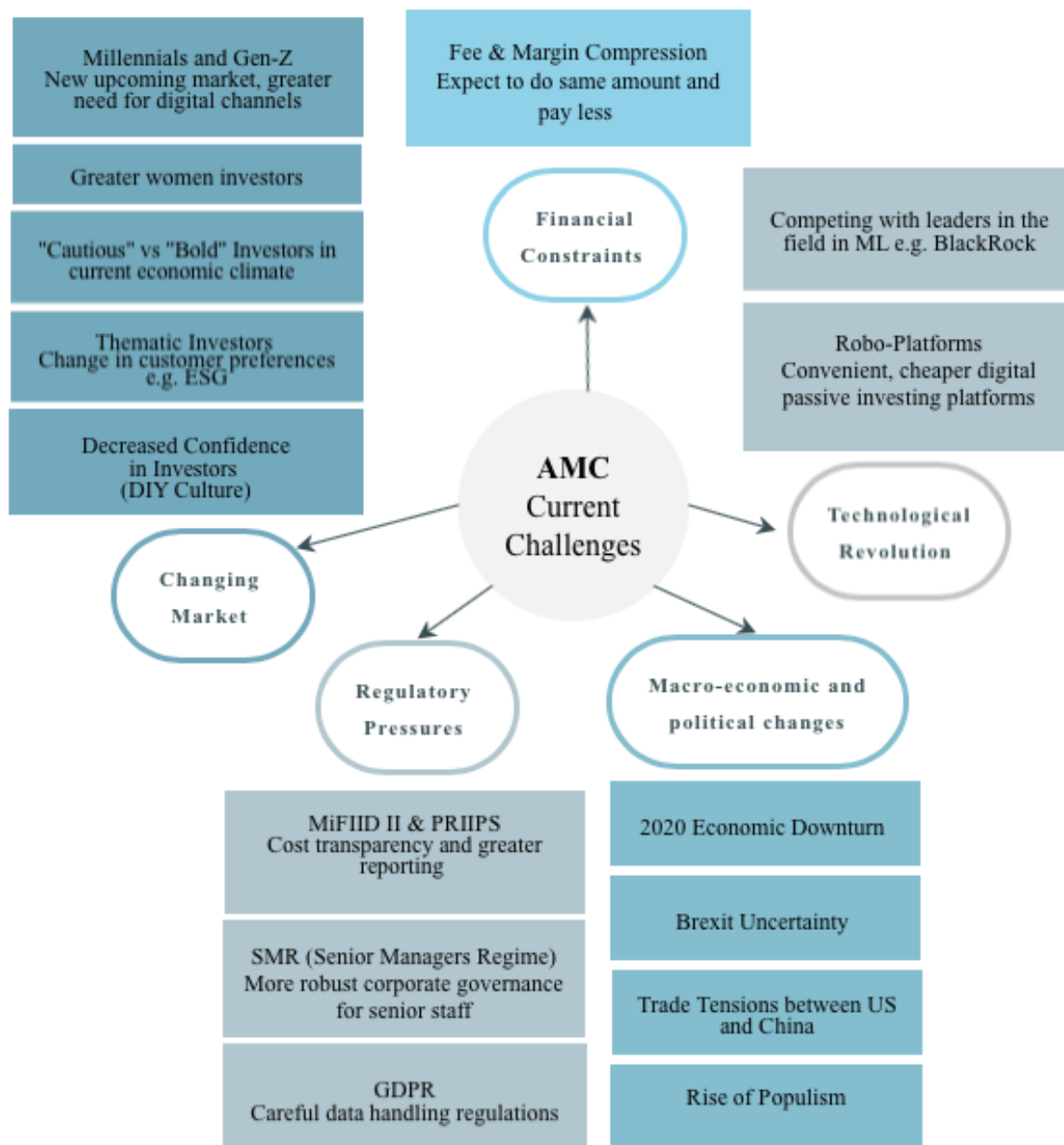
The current challenges faced by AMC largely lie in its outdated technology. With company's maturity comes its rigidity, the legacy systems it has in place fail to adequately evaluate trends among large quantities of data, personalise findings according to customer persona, and automate tedious tasks. Therefore, the company fails to compete against the more "innovative" with improved efficiency to cope with the recent trend of margin compression – where customers expect more whilst paying less (KPMG, 2017).

With customer value in mind, AMC fails to address the changing headwinds in demographics of investors – with two distinct camps being formed: the "conservative" and the "bold" investors. With the

economic downturn, "conservative" clients may be considering diversifying their investments in lower risk assets like gold or property. Retaining these apprehensive clients and justifying fees will require client platforms for greater transparency in methods of generating alpha. On the other hand, "bold" investors hope to profit off the low share prices. In order to attract this clientele, AMC needs to fulfil expectations of technological sophistication and seamless service delivery where 57% would change their banking relationship for a better technology platform solution (Deloitte). This inevitable change will also cater for the influx of tech savvy millennials and *female* entrepreneurs that comprise the new affluent customer segment.

Emerging roboplatforms, such as Wealthfront are gaining traction due to the ease of investment and lower fees compared to asset management companies (Kocianski, 2020). In order to attract this new demographic of investors, AMC needs to utilise its competitive and strategic edge with a service offering balancing the trade-off between technological interpretation and human reasoning for value-creating insights. This and other challenges are summarised in Figure 2, which AMC may need to address for transforming customer experience through digitally accessible information.

Figure 2: AMC Challenge Summary



What projects could AMC implement?

Based on the organisational context presented in the previous section, AMC could implement a portfolio of five projects to develop a digital capability in-house. This may ensure that AMC could face the recent global challenges and survival in the long-term.

Project 1: Customer Insights

Customer Insights through Machine Learning may allow greater marketing productivity through facilitating empathetic account management for customer engagement. Especially at times where face-to-face contact is minimal, understanding customer needs and expectations through automated insights is hugely beneficial

Table 1: Customer Insights Profile

| Customer Insights and Profiling Benefits | | | |
|--|---|----------------------------|---------------|
| Benefits Description | Measurement | Measure Owner | Metric Type |
| Engage Customers | Customer survey to measure satisfaction | Head of Investor Relations | Non-financial |
| Revenue Growth | Revenue Growth per Month | Chief Financial Officer | Financial |
| Offers direction for investment decisions | Investment Decision (Contact time between analyst + client) | Investment Manager | Non-financial |
| Improve personalisation for marketing | Click-through rates | Marketing Manager | Non-financial |
| Improve market penetration | Ranking on Top 400 | Chief Financial Officer | Non-financial |
| Disbenefits: May overspecialise user experience toward few personas, personal data collection may feel intrusive to clients | | | |

to maintaining a gratifying customer experience remotely. At present, client experience improvements are lucrative, *“firms that focus on the quality of the customer experience [may] achieve twice the revenue growth rates of those less focused on CX”* (KPMG, 2019).. The customer approach project profile is presented in Table 1.

Project 2: Investment Insights

This project uses alternative data sources, from natural language processing of annual reports to satellite photo interpretation for predictions regarding fruitful, less risky investments.

Table 2: Investment Insights Profile

| Investment Insights (Human + AI combined) | | | |
|---|---|----------------------------|---------------|
| Benefits Description | Measurement | Measure Owner | Metric Type |
| Reduce Risk | Returns on investments | Investment Manager | Financial |
| Revenue Growth | Revenue Growth per Month | Chief Financial Officer | Financial |
| Offers direction for investment decisions | Investment Decision (Contact time between analyst + client) | Investment Manager | Non-financial |
| Customer Retention | Active customers on database | Head of Investor Relations | Non-financial |
| Improve market penetration | Ranking on Top 400 | Chief Financial Officer | Non-financial |
| Disbenefits: Inaccurate data sources could skew results and not clear whether correlations are signals or just noise | | | |

Legacy systems at AMC only evaluate traditional data. This collective intelligence will drive better outcomes for customers as the company is better able to compete with competitors and keep pace with the fast moving market. However, a machine is only a function of its inputs, inaccurate data could produce misleading conclusions and improper investments. The project profile is presented in Table 2.

Project 3: Smart Portfolio Tools

Smart Portfolio Tools such as BlackRock’s “Aladdin”, may allow greater company-wide collaboration and efficiency. Knowledge sharing is essential for tailored and effective investment strategies. Often “*none of these transactions are synchronized in real-time so everyone has a different view of the truth*” (Head of FNZ), manifesting in high error rates.

Smart Portfolio Tools could circumvent this problem through the integration of risk and portfolio performance insights (Kenway, 2019). Although, a common information source creates risk of cyber-security hacks and an overwhelming quantity of data. The project profile is presented in Table 3.

Project 4: Back Office Operational Optimisation

This project automates more routine tasks with Machine Learning efficiency. Employees can then be used for higher-level tasks such as exception based handling and customer relations for greater market penetration. Efficient resource use improves employee satisfaction, reduces human error and lowers cost curves. This may, however, result in job redundancies and will require upskilling talent. The project profile is presented in Table 4.

Table 3: Smart Portfolio Profile

| End-to-End Smart Portfolio Tool | | | |
|--|---------------------------------------|----------------------------|---------------|
| Benefits Description | Measurement | Measure Owner | Metric Type |
| Reduces Human Error | Returns on investments | Investment Manager | Financial |
| Revenue Growth | Revenue Growth per Month | Chief Financial Officer | Financial |
| Reduces Delays | End-to-end investment completion time | Chief Operations Officer | Non-financial |
| Customer Retention | Active customers on database | Head of Investor Relations | Non-financial |
| Improve market penetration | Ranking on Top 400 | Chief Financial Officer | Non-financial |
| Disbenefits: All information in one place means greater risk for cyber-security, over-burdened with information | | | |

Table 4: Back Office Operations Profile

| Back Office Operational Optimisation | | | |
|--|-------------------------------------|--------------------------|--------------------|
| Benefits Description | Measurement | Measure Owner | Metric Type |
| Reduces Human Error | Returns on investments | Investment Manager | Financial |
| Cost Reduction | Operational Cost Reduction | Chief Financial Officer | Financial |
| Human Resource Efficiency | Hours worked per employee vs output | Chief Operations Officer | Non-financial |
| Improve Employee Satisfaction | Employee Satisfaction Survey | HR | Non-financial |
| Disbenefits: Loss of jobs, still need data scientists for constant oversight of processes | | | |

Project 5: On-Demand Reporting with Chatbots

Chatbots are AI-based advisors, shown to improve sales efficiency in targeting large and smaller accounts that were previously impossible due to insufficient returns. Banksight, one such platform, has been used successfully in attracting this “tech-savvy” market, with 24/7 guidance.

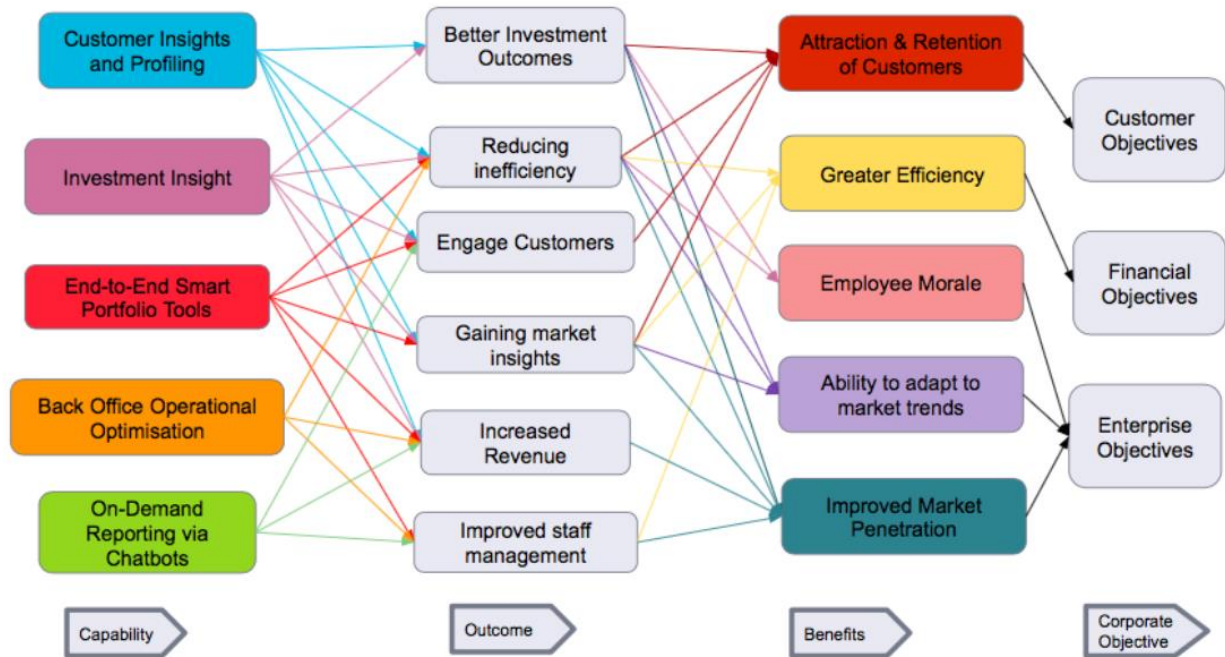
This automated customer service reduces employee hours results in greater morale and offers greater control and reassurance to investors making decisions from home. This again may result employment loss and coverage of only FAQs. The project profile is presented in Table 5.

An overview of the benefits and their link to objectives are illustrated in Figure 3 for greater clarity.

Table 5: Chatbot Reporting Profile

| On-Demand Reporting via Chatbots | | | |
|--|-------------------------------------|----------------------------|--------------------|
| Benefits Description | Measurement | Measure Owner | Metric Type |
| Customer Retention | Returns on investments | Investment Manager | Financial |
| Customer Satisfaction | Customer Satisfaction Survey | Head of Investor Relations | Financial |
| Human Resource Efficiency | Hours worked per employee vs output | Chief Operations Officer | Non-financial |
| Employee Satisfaction | Employee Satisfaction Survey | HR | Non-financial |
| Disbenefits: Loss of jobs, does not have predetermined answers for all questions so will still need the help of a human advisor | | | |

Figure 3: Benefit Map



As a summary, the analysis of the asset management sector shows that there is an urgent need for digital transformation to increase current performance. In this period of economic and social pause and recovery, asset management companies are not only trading new ground in investment strategy for clients but also piloting a new working environment. This report has identified five strategic projects that have the potential to generate sustainable growth as companies are pushed towards efficiency and innovation. The proposed portfolio greatly improves

customer experience – a key tenet for success within this sector. It also creates efficiencies in streamlining processes and generating more productive outcomes, which together helps AMC penetrate customer segments currently held by market leaders. These additions also foster employee confidence and cultivation of talent. Overall, with these recommendations, AMC and many others companies have scope for utilising this period of adversity to bring about significant improvement in performance in the future.

Authors

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