**MS&E 140/240-Final Paper**

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This paper is describing an understanding of the presentation by Danny Wallace, Partner at PWC. The presentation glanced over all the information one might need to start a startup company or take decision as a member of C-Suite executive. Accounting and Finances is a vast subject that just not includes the various accounting statements but also funding, market models, processes around IPOs, sales taxes, income tax withholding, expense controls, upgrades, fraud protection, etc. Danny’s presentation highlighted over various of these aspects in the life cycle of a company and the importance of each. It was more of an open discussion rather than a speaker’s presentation that covered the real-world usage of all the accounting terms and statements we have learned in the MS&E 140/240 course.

To set the stage we went over recent venture capital funding trends via the quarterly MoneyTree report published by PWC. MoneyTree report is a data analytics of the market trends, VC investment with respect to variables such as geographical location, stage of funding, timeframe, industry, sector, etc. The analytics data from the report provides quite a few thoughtful key insights about the market such as in 2020, $130B VC funds were invested in about 6K companies, the last two quarters of last three years were higher investment quarters, in Q4 2020 alone 225 filed for an S1, bigger rounds of funding are usually in later stages of a company and so on. Not just the amount and timeframe, but the report also gives us sector analytics e.g., topmost funding was in healthcare, SAAS, Fintech, Security, transportation companies. Geographical analysis shows that $132B out of total $259B invested by VCs in USA, of which ~45% was in CA and remaining in Federal, Texas, Illinois, Colorado, etc. There has been some speculation about a tech bubble ready to crash, but based on real world use cases, revenue and profits the businesses look pretty sustainable so far.

From a garage to a unicorn, the funding lifecycle of a company goes through four major stages namely seed, early, expansion and later stage. Seed stage is the time when the founders are reaching out to friends and family for investment money, there is no CFO and the whole accounting process is manual. This is where the founders have to wear multiple hats and take care of expense blocking and tackling in a pretty basic way. Following next during the early stage is where company usually have Series A funding averaging about $7 million, and may be a part time CFO, contractor accounting professionals, and still manual but a little more complex blocking and tackling. During the Expansion stage, there is more round of funding, a full time CFO, some automation software, formal close cycle and a few accounting professionals. The final stage called the later stage is when a company files S1 right before the IPO. During then there is usually a series D funding, has a C execs suite, and in house accounting team with formal controls.

As we can see expense and control is a major part of the lifecycle, loosely bounded expense policy might result into company’s failure at any stage. There have been various examples where employees used company funds for personal pleasure, travels or giftings. Never incurred expenses, falsifying damages of goods, buying and returning equipment and filling for reimbursements are some other examples of frauds. Startup founders / CFO / accounting teams needs to have well defined measure to prevent these frauds from happening. Some of these measures can be minimizing number of corporate card holders, setting approval limits, payment review policies before the transactions, etc. Having a robust hiring process with background checks and referrals, segregation of responsibility and supervision are some other ways to avoid these kinds of frauds. However, lot of times the frauds are external via phishing emails, C suite exec asking to wire money or vendor asking updated bank information, etc. I currently work as a Principal Software Engineer at an email security company. We scan about 150 million emails every day for about 10 million mail boxes and filters out 13 types of threat/fraud emails from them to protect our customers. Having such email/network security measures in please may cost a little money initially but has huge long-term gains and peace of mind. If in case a fraud happens, recovering the money usually never happens and comes with more time and money costs. In one example a tech company misplaced about $46.7 million dollars because of CEO impersonation emails and were never able to recover that money.

All the revenue, funding, operating expense, expense controls eventually directly or indirectly reflect in key financial statements of a company. Most of these key financial documents are presented to the VCs, investors, shareholders, and pretty much everyone interested in them. Statement of Operations, Balance Sheet and Cash Flow Statement are the three key documents a company usually presents to show the progress. As the name suggests Statement of Operations covers OPEX (operation expenses), revenue, gross margin, and operating margin details. Whereas the Balance sheet covers the cash balance, assets, working capital, accounts receivable and equities. Lastly in Cash Flow Statement details about cash flow from various operating activities, financing activities and debts is represented. The documents might seem straight forward but the details that go in the documents might vary drastically based on the revenue model and fundamentals used. For example, a peer-to-peer service facilitating mediator company such as Airbnb, Uber, Lyft, Doordash, etc. can show the whole transaction through them as revenue or can also show just their percentage cut in the revenue. Showing whole amount might look better for revenue but look bad on percentage net earnings. Thus, such items must be specifically called out to make a clear sense of them. Similarly, the revenue/OPEX varies based on the product and model used, for eg. the SAAS software revenue usually is subscription or usage based with a development and infra cost, vs. an on prem installable software with one time license fee. Companies can switch models over the period of time, like Oracle moving from on prem to cloud model recently but need to appropriately show the numbers in each statement.

Other than the statements, investors love to see metrics about the company’s key items over the period of time. These metrics numbers are specific to the use case or revenue model of the company. An example covered was from Asana, a company that helps teams orchestrate and speed up the work and process flow. It’s a free service but has extended feature sets for paid customers. Thus, the key metrics for them to show are number of total activated accounts, percentage paying customers, conversion rate, geographical areas, retention rate, etc. Similarly, Costco a wholesale retailer has metrics such as total locations, old members, new added members, new locations opened, number of customers upgrading from basic to premium membership, etc. From these examples it is quite clear that the metrics are custom to the business and should be defined accordingly. So, should the execs present all the numbers? No, metrics that are going to be consistently measured with high quality data should always be included, but there are metrics for internal purposes that can be kept internal as long as it is not considered data hiding from investors. Historic analysis of a metrics and future need basis analysis can also help in correct filtering out metrices.

As a founder or exec there are four decisions one should own for sure, that are key metrics, Revenue model, Taxes, common stock valuation. We already discussed key metrics, let’s deep dive a little into revenue models. Revenue is the most important number in financial statement, it drives the valuation, defines growth rate and predictability of a company. Revenue can be gross revenue where company is primary obligor and sets the price of the service. Whereas net revenue is more relevant for marketplaces where company is acting as an agent and reliant on commission for revenue. Both are valid forms of revenue but should be called out explicitly based on the model used.

Another important decision is Taxes and consideration around them which usually gets neglected during the earlier phase of the company. The federal and state level laws can make taxing goods and services complicated and not taxing properly can have long term financial and legal implications. Like in case of Wayfair model, a company had to collect sales taxes if the state if there is a physical being in the state vs. Nexus model where company has to collect sales tax if there is a transaction in the state. Amazon had to change the taxing after government brough in Nexus models and shifted a lot of paradigms for the company. Withholding tax can vary a lot in case of 1099 vs. W2 paystubs, 409a complaints vs. non complaint equity distribution, or type of stock transactions (options, RSUs, ESPPs, etc.). Income taxes are usually filled as net operating losses and R&D credits in financial statements but need finer level attentions in case of international businesses.

Common Stock Valuation is the key concept for fundraising and can drive great talent towards or away from the company. This is varying valuation that updates on changes such as new funding rounds, mergers & acquisitions and new customer contracts. Based on all the factors the fair value is decided quarterly by an independent third-party valuator expert in 409a report. The tax withholding/liability of the stocks may vary based on the allotment of the stock and should be clearly defined to avoid any unforeseen financial and legal penalties.

From fundraising to filling an IPO S1, the key information, metrics and statements discussed above is needed and the representation drives a company’s growth. During the fundraising round table discussions other than the idea a lot of accounting details are discussed. Historic financial statements, market size, profit margin, near and long-term projections, use of funds, debt agreements, executive compensations and equity arrangements makes quite a bit of those details. On the other side during a S1 filling, audited financial statements, risk factors, last 8 quarters of results, etc. are listed. Once S1 is filled key infrastructure checklist items are needed for the IPO. All the financial systems should be in place with well-defined controls and reporting, management team responsibilities and compensation must be reviewed, and independent governance board should be in place for auditing and code of conducts. An IPO costs about $20 million dollars and about 20 weeks of filling, which is a lot of resources. A successful IPO can raise capital, gain marketing, and provide benefits to the employees given all the qualitative and quantitative fundamentals align. A revenue year to year growth, strong margins, EBITDA and a solid ideation, all club in towards the required fundamentals during and after the IPO. Missing one forecast or growth numbers in a quarter can result in no mercy from the investors and the market.

A human is to err, and a CEO is no different. With experience the mistakes made are reduced, which is why there is more funding for the startup with CEOs with a proven track record. A first-time founder/CEO can knowingly or unknowingly make more mistakes which can leave long terms impacts on the company’s future. Underinvesting in accounting or fast cash burning environment can leave company with less assets over the period of time and delay the exit. Tax, laws, technology and people’s priority change over the time. Failure to deal, not being agile and not upgrading the processes can cause potential weaknesses and handling will become expensive with times. These are few major most common mistakes that can be avoided by proper auditing and with the help of consultation companies.

As Steve Jobs once mentioned, an idea is worth nothing if not properly implemented in a use case for consumption. That execution and smooth functioning need all the financial management around it. The founders/execs can come from their field of specializations, but accounting, taxation, finances, fraud prevention and metrics are applicable to every company. A CEO cannot know everything in detail but by hiring the right people and building the relationships he/she can smoothen the flow. To sum up, the key take away is to not ignore the importance of proper accounting and setting up processes in time with periodic updates for a successful tenure.