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# MediMask

MediMask, based in Northern Virginia (MediMask), is a supplier of medical and healthcare facial masks. MediMask was newly founded in 2020 and is the one KN95 safety masks for during the COVID-19 pandemic. Its products are complied with the requirements of Food and Drug Administration as well as European Commission. The other products that MediMask distributes include NIOSH-N95 and four-ply surgical respiratory masks. The company plays a crucial role as COVID-19 spread globally and infected more than 31 million people with about 977 thousand deaths as of 23 September, 2020 (worldometers.info) MediMask's mission statement is "to design and manufacture high-quality face masks for healthcare professionals and health care recipients and to keep improving their offerings in line with changing requirements of the customers."

Given that the company is still in the early stage of structuring and still relies on classical organization for the most part, in order to follow its mission, satisfy the high demand of current market, and be efficient in its operation, MediMask's must-have next step is to implementing IT governance framework. Effective IT governance encourages and leverages all personnel of a firm in using IT, besides the leaders, while remaining in compliance with firm's established vision and principles (Weill and Woodham, 2002). Because once governance is effective, IT naturally becomes a valuable asset that is inseparable from business (Robinson, 2005).

## IT governance framework

 Thanks to the revolution of information technology, IT governance is emerging to become an integral part of corporate governance. IT governance focuses on the performance and transformation of IT to meet the present and future demand, and to keep business sustainable (De Haes and Van Gembergen, 2004). Just as how MediMask is important to healthcare system during the pandemic, IT governance is crucial to business. According to Weill and Ross (2004), effective IT governance can potential generate profits for company that are 20% higher than others pursuing similar strategies. The reason for this significant difference is with IT governance, company can specify accountabilities for IT-related business outcomes and align its corporate priority with IT investment. In general, IT governance is defined as "the decision rights and accountability framework for encouraging desirable behaviors in the use of IT." (Weill and Ross, 2004). It surrounds the issues of who has the right to make decision and hold liability, how decisions are made, how to measure and monitors the implementation and results of such decision. IT governance encloses five major decision for a firm including IT principles, IT architecture, IT infrastructure, business application needs, and IT investment and prioritization. (Weil and Ross, 2004). The basic framework of IT governance, in order to be considered effective, needs to base on structure, process, and communication, and the structure of IT governance consists of four main types: centralized, decentralized, federated, and project-based organizations (Symons, 2005).

##  COBIT and ITIL

 COBIT, or Control Objectives for Information and related technology, is 34 identified IT processes developed by Information Systems Audit and Control Association in 1996. COBIT is an IT governance framework provider of different criteria of measurables for IT management including maturity model, critical success factors, key goal indicators, and key performance indicators (Symons, 2005). In terms of maturity, it is confirmed by De Haes and Van Grembergen (2009) that the more mature of practice, the higher business alignment, and the more effective and higher potential for success. While COBIT helps firms identify what to do with the ideal approach that firm can manage all processes properly. However, it is challenging and if not, COBIT does have some drawbacks, specifically when it does not provide detailed guidelines for how things should be done; thus, it is mainly preferable to IT risk managers (Von Solms, 2005). From the observation, it is to conclude that COBIT should not be imposed alone.

 IT infrastructure library (ITIL) developed by the Office of Government Commerce in the United Kingdom. ITIL provides the framework for IT governance (Symons, 2004). In short, in terms of IT governance, COBIT is the list of what to do and ITIL is instruction on how to do it. The two theories are complementary (Symons, 2004) and should be applied respectively for the best possible outcomes of IT governance.

##  Firms with established IT governance

 FedEx is known to have integrated the concept of IT governance via its Information Technology Oversight Committee. The role of the department is to prioritize the decision and supervise it (Symons, 2005).

 UPS's senior management is responsible for IT principle and investment, while its CIO's team is responsible for IT architecture and IT infrastructure decisions (Weill and Ross, 2004). UPS's IT governance demonstrates firm commitment is to ensure the availability of integrated solutions that satisfy customers demand. UPS has the centralized type of IT governance.

 Another example of centralized IT governance is UNICEF -- a non-profit international organizations. Due to its operations in majority of states, headquarters administrative tasks are supported by IT, while the operations at brands are overseen by CIO, whose job is to work with local or regional C-level managers to prioritize the decision that is following objectives set by headquarters (Weill and Ross, 2004). This model of IT governance allows UNICEF to be transparent in terms of information and communication across the agency.

 On the other hand, car auctions company Manheim Auctions allows development teams to self-govern its infrastructure project by project to accommodate the need for fast growing of business (Weill and Ross, 2004)

## Application of MediMask

It is no doubt that digital evolution has changed the way the world functions. There is currently hardly any business not being impacted by technology. In healthcare system, digital technology's main purpose is to improve the performance of healthcare business processes by bettering efficiency and enhancing the quality and time of service delivery (Laurenza, Quintano, Schiavone, and Vrontis, 2018). With digital technology application, many benefits have been brought to healthcare systems, healthcare providers, and most importantly patients.

The birth of digital technology gives way to the forming of IT governance and all of its related tools. Thanks to technological evolution and the consistent growing demand of MediMask's products, the company is considering the implementation of an IT Governance framework to ensure continual improvement of IT capabilities within organization’s overall IT Governance Framework based on ISO 38500 in order to fulfill its mission as well as expanding business.

ISO38500 is the international standard for the corporate governance of information technology. ISO38500 provides guidance to communicating, informing or assisting direction on the effective and acceptable use of IT within the organization. It includes six principles: establish responsibilities, plan to best support the organization, make acquisition for valid reasons, ensure necessary levels of performance, ensure conformance with rules, and ensure respect for human factors. It is argued that a thorough implementation of IT governance framework based on ISO38500 is rather challenging. However, ISO38500 remains as key basis for governance of IT in twenty-first century (Mohamad and Toomey, 2015).

As for MediMask's IT governance implementation, COBIT 5 -- the latest iteration of the framework -- should be taken into consideration. COBIT 5 provides five principles that lead to effective management and governance of IT of business: meeting stakeholder needs, covering the enterprise end to end, applying a single integrated framework, enabling holistic approach, and separate governance from management. These recommended principles are similar to Manheim Auctions' practice. Given that MediMask is present in more than one country, with the application of COBIT 5 and ITIL and in compliance with ISO38500, following steps should be taken:

Step 1: Establish mission statement

The first and foremost act is to publicly establish the mission not only within IT but across departments and across brands in the world. It is important to ensure that every decision made or step taken is to fulfill the company's mission which is also what not only public but leaders of company expect.

Step 2: Establish responsibilities

As explained above some similarities between Manheim Auctions and COBIT 5 recommended framework, and due to the fact that MediMask operates in many countries, it is important to assign CIO for each location, and CIO for the region. These CIOs are responsible to manage the work within their assigned sectors and report to the immediate upper management. All information and communication should eventually be brought to the general manager of MediMask.

Step 3: Build system to meeting stakeholders needs and best support the organization

Once CIO is assigned, one of their first job is to identify and organize plan to meet stakeholders need. In this case, it is the need of sufficient supply to satisfy the thirst of growing and desperate market demand and the expansion goal of MediMask. More specifically, MediMask needs to find and build the e-system with suppliers for local inventories and manage the distribution to improve delivery time to customers.

Step 4: Apply single integrated framework

The system should be implemented and used uniformly across MediMask to make sure that everyone is on the same track. This tactic also enables better and easier governance from MediMask leaders. In addition, once there is an issue at any local brands, the system will allow for timely identifying and tackling of issue.

Step 5: Make acquisition if necessary

Given the ongoing spread of the pandemic and the limitation of time in building and implementing the system across MediMask, any available system that suits the requirement and mission MediMask can be acquired. However, it will make the overall governance more challenging, so this is only recommended for short term. In the long run, a uniform system within the company is more favorable.

Step 6: Ongoing review and human survey

Whether it is traditional system or IT system, the role of personnel is important as the system is operated by them. Given that MediMask is partly in healthcare industry which is sensitive when it comes to moral values, periodic review of the system and survey of personal perspectives could provide the ideas for overall system improvement, which will enhance the performance of business and eventually lead to better success. These reviews will help CIOs to ensure the quality of performance and identify any weakness of the system to notify the upper management. The weakness can either be fixed locally and become lesson learned for firm, or across sectors depending on the level of severity.

On the side note, according to the recommended steps, there is a clear distinguish between managing and governing. The local and regional CIOs act as manager to oversee the performance of their assigned system and guarantee is abidance to MediMask's mission. They are responsible to the mistakes within their sectors and make any adjustment needed, then report it to the general leader of the company who is the governor and makes rules.

There is no sign that the pandemic will ease in the near future when the data for infected cases is increasing every minute. It is important that MediMask immediately plan and implement the system to enabling better and timely distribution of healthcare facial masks. Given the short time period, the IT governance can start at local level to meet current high demand of the market. Managing and governing will be challenging, so continuous evaluation is necessary to ensure efficient operation of the local system. Transparency and communicativeness are key factors to prevent potential threats. As business is growing and expanding with financial capability, the uniform system can then be developed and imposed across the firms. Additionally, in the meantime, it is not very important whether to apply COBIT or ITIL or both. Compared to the threat of pandemic and business. these IT governance frameworks can be initially implemented separately as long as they are in accordance with ISO38500. For future stability and expansion of business, a full application of all frameworks will be better in terms of IT security and uniformity of the company.

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