# Introduction:

Business, IT, and Digital Transformation is the convergence point where information is leveraged in new and innovative ways to create a competitive advantage thus enabling organizational success. This is easier said than done. Barriers, including but not limited to expensive data preparation, structural, cultural and business politics, growth, and vendor lock-in can complicate transformation and possibly derail an advantageous market position. Minority Business Enterprises (MBEs) are in a position where their creativity and innovativeness aptly intersect with the Healthcare and Life Science Organizations to solve problems and create value for all stakeholders - patients, Healthcare and Life Sciences organizations, MBEs and Society.

# Healthcare and Life Sciences Current State:

Projected to reach \$10.059 trillion by 2022 global healthcare spending continues to increase dramatically. Small niche companies where most new drugs are discovered, appear to be driving innovation. Conversely, with increasing spend how do Healthcare and Life Sciences (Hc & LS) organizations optimize their Return-on-Investment where over the last 9 years returns have fallen to their lowest ever for 12 large cap biopharma organizations? R & D returns amounted to 1.9% in 2018 compared to 10.1% in 2010. This definitively indicates a shift in the industry (2019 Global Life Sciences Outlook).

It is predicted that digital transformation can save \$300 billion in the Hc & LS sector – more specifically in chronic disease. To remain competitive, Hc & LS organizations must solve three key problems.

<u>First</u>, solve the problem created by the three most mentioned barriers to digital transformation in the pharmaceutical and medical-technology industry: culture and mindset; organizational structure; and, governance. Culture, like many other industries, is the biggest hurdle! <u>Second</u>, costs associated with lack of persistence (continuous use of the prescribed medication), compliance (following the prescribed treatment plan), and adherence (filling and following the prescribed treatment plan) is costly simply because patients do not achieve expected outcomes. Failure to adhere to the prescribed medicine regimen bears several ramifications and significant costs (Jones, Peter, Rutter, & Somauroo, 2019):

- 50 60% of patients with chronic illnesses miss doses, take the wrong doses, or drop off treatment in the first year.
- It is estimated 125,000 lives are lost annually in the US due to nonadherence.
- Estimated that \$290 Billion dollars are spent as a result of nonadherence.
- 10% of hospitalizations are considered avoidable through improved medication adherence.

<u>Third</u>, invest in leveraging big data as a competitive advantage. It is estimated that 80% of the cost to using data is in data preparation. This information is important because it will be used to automatically identify risk factors and recommend preventative treatment. It is this ability to convert big data to high value analytics that will drive a real and essential competitive advantage (Wilder-James, 2017).

Solving these three problems will positively impact pharmaceutical-industry revenues. Inventive and Innovative MBEs can solve these problems. Inventive and Innovative MBEs can enter the existing marketplace as partners to already established transformative organizations thereby netting additional value for all stakeholders. This opportunity enables growth for MBEs within this industry while

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delivering significant value to our Hc & LS members.

# Healthcare and Life Sciences Opportunity:

Although much progress has been made in transforming the Hc & LS Industry into an agile, customer centric, competitive industry, there is still more to be done. MBEs can play an integral part in the innovation of already existing digital transformation tools and processes (2019 Global Life Sciences Outlook):

- Patient empowerment growth is facilitated through <u>Personalized Medicine</u> with help from advances in healthcare analytics, artificial intelligence, and blockchain. As the Hc & LS industry shifts to value-based personalized medicine is required to deliver healthcare to patients and the many stakeholders.
- <u>Medtech</u> is another Hc & LS sector where growth is projected over the next 5 years.
- <u>Software-as-a-Medical Device (SaMD)</u> is a rapidly growing area of innovation.
- As more <u>Internet of Medical Things (IoMT)</u> become connected to the Internet, cybersecurity programs must be strengthened to protect patients.
- <u>Licensing, Mergers and Acquisitions (M&A), and/or Joint Ventures</u> are an attractive source of innovation and reduced R&D investments and diminishing returns.
  - In 2018 Transformative Acquisitions ranged between \$60 \$70 billion.
  - Innovation is stimulating nontraditional partnerships.
- <u>Small Gene Based Therapeutic Startups</u> are disrupting the traditional pharma culture. The challenge is that the pharma's value chain is built around traditional products, while next-generation therapies are built around the patient.
- <u>Tech Giants (Google, Amazon) are diversifying into Hc & LS</u> sector leveraging big data and artificial intelligence for prediction and prevention as well as machine learning to mine and decode unstructured data in medical records.
- A growing networked ecosystem requires <u>Management of Third-Party Risk.</u>
- New value chain should keep <u>Patients at the Core</u> when new, creative, innovative processes and tools are being designed.
- <u>Outsourcing for Strategic Relationships</u> in biologics, data-driven clinical innovation, manufacturing capacity, expertise in advance technologies such as AI, Robotic and Cognitive Automation, and Cloud Computing to increase efficiencies, lower costs, and decrease clinical timelines.

These and other opportunities exist where MBEs may engage, innovate, add scaled value, and create a competitive advantage.

#### We are Here for a Purpose:

We are here to create a better society through improved healthcare in a competitive and sustainable manner. We come together to create an intersection of companies, building an ecosystem of differing expertise, enabling the design and development of the next original, creative, and relevant idea that will bring value to patients, Hc& LS members, MBEs, and, for the benefit of society at large. As leaders of Supply Chain Diversity, we understand that individuals and companies offer differing perspectives thereby leading to richer problem solving, and more creative outputs. Not only must organizations look to the obvious (leverage big data analytics, course correct the culture to a more collaborative one, and be part of the growing digital transformation in every aspect of Hc & LS) to gain a competitive

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advantage, organizations must be inclusive of a Diverse Supply Chain in their quest to innovate as an added competitive advantage.

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## **Reference:**

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