**MIS 4596**

**Project Charter**

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| ***Project Title*** | ***Vulpine Analytics*** | ***Product/Process Impacted*** | **Performance Evaluation** |
| ***Start Date*** | ***2/02/2017*** | ***Organization/Department*** | ***Human Resources*** |
| ***Target Completion Date*** | ***4/25/2017*** | ***Champion*** | ***Dr. David Schuff*** |

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|  |  | Description | | | | | | | | | | | | |  |
| **1. Project Description** |  | According to Nielsen, 1 in 6 consumers in the United States currently owns a wearable, and the market is expected to continue growing. In addition, Gartner estimates in 2018 wellness programs will drive 15% of total fitness tracker purchases in the United States. There is no shortage of wearable devices and apps to collect data from them, and some companies are starting to generate insights by comparing aggregated employee health data to broad business goals, such as fewer manufacturing errors or lower employee turnover rates. This insight enables health risk and cost reduction while allowing organizations to modify wellness programs to better incentivize productive habits. Two companies specializing in this area are Vivametrica and Springbuk.  Greater benefits are realized as employee engagement in wellness programs and the amount of subsequent data increases. In addition to increasing use of wearables with wellness programs, a performance management trend towards more frequent performance evaluations (specifically among professional services and technology firms) provides an opportunity. A 2016 PwC Consumer Intelligence Series report found that 62% of consumers would find rewards for productivity improvements based on employer-monitored wearables to be useful.  While companies like Vivametrica, Jiff, and Springbuk focus on cost reduction through lower health costs, Vulpine Analytics aims to increase employee productivity. Research shows that there is a meaningful relationship between wellness factors (sleep and exercise) and individual productivity. Vulpine Analytics will use this research to develop a model that integrates employee generated data to predict expected productivity. The model is refined with inputted data and is tailored to each employee in order to provide productivity boosting recommendations.    Based on these trends and indicated demand, we will address the connection between personal health habits and productivity using employer-sponsored health and wellness programs and performance evaluations. The solution will include a dashboard providing employees with information and insight to help balance personal health and habits with their performance at work. By providing employees with a tool to help manage work-life balance, this will increase engagement in the wellness programs and generate more information to assist organizations in risk and cost reduction for insurance. At an employer level, the Vulpine Analytics platform will allow management to gain insight into aggregate level productivity, sleep, and overall wellness. Additionally, the analytic platform integrates performance evaluation data and draws correlations between employee productivity and performance (adjusted for role), allowing management to make smart decisions about their wellness programs and evaluation metrics. | | | | | | | | | | | | |  |
| **2. Project Scope** |  | Our service offerings will integrate the wellness programs and performance evaluation systems of our clients. Customizable implementations will be necessary due to differing performance evaluation systems. Our solutions will be most beneficial for organizations with performance evaluation systems generating formalized feedback at least 8 to 12 times a year. These solutions will drive insight to improve the goals and incentives associated with wellness programs. We will develop an employee-facing dashboard, comparing individualized performance and health metrics, and an employer-facing dashboard, comparing aggregated health metrics with broader business goals and insurance risk and cost metrics. | | | | | | | | | | | | |  |
| 1. **Project Goal and Deliverables**   **Increase productivity**: Reduce absenteeism by 30% within 2 years of implementation. | | | | |  |  | **Metrics** | | **Baseline** | **Current** | | **Goal** | |  | |
| **Increase engagement**: Increase participation in wellness programs by 50% within 6 months of implementation. | | | | |  |  | Absenteeism | | 10% | 10% | | 7% | |  | |
| **Increase employee health**: Reduce number of high-risk status employees by 25% within 2 years of implementation. | | | | |  |  | Wellness program participation | | 36% | 36% | | 54% | |  | |
|  | | | | |  |  | High-risk employees | | 37% | 37% | | 27% | |  | |
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| **4. Business Results Expected** | | |  | We will build this application over the course of nine months using an iterative approach that solicits feedback from potential clients in our networks. We will also plan for a 3-month buffer in case of delays in programming or acquiring clients. After the first year, we will shift from developing the software to maintaining and updating it. Moreover, our software engineers will also work on implementing the software at clients, since there will be a need for custom development to interface with existing systems.  We plan to charge $1.50 per employee per month, as our SaaS is an add-on to existing wellness program yet provides clients value via productivity increases. In our three-year projections, we hit profitability in the third year and expect profitability to grow in the future. Successful results and brand reputation will enable us to get more clients with greater numbers of employees. We project an internal rate of return of 55% and net present value of $447,516. | | | | | | | | | | | |  |
| **5. Team members** | | |  | Team Members: Derek Gibbs, David Yastremsky, Erika Nixon, & Eric Koeck  Champion: Dr. David Schuff  Mentor: Paul Amorello, IBIT Mentor | | | | | | | | | | | |  |
| **6. Support Required and risks** | | |  | A perceived risk is privacy concern from employees and a subsequent wariness from employers. These concerns will be mitigated by not providing data to participating firms on an individual basis. Employers will only receive anonymized, aggregated data, and all individual health and habit metrics will be hosted on our own system. Since consumers regularly give their health data to other companies, such as Apple and Fitbit, we don’t perceive this to be an issue as long as industry-leading security measures are implemented. A large concern stems from employers knowing how much individuals exercise or sleep, but this would not be the case under our solution. A 2016 PwC Consumer Intelligence Series report found that privacy was only the third barrier to adoption for fitness bands after price and usefulness. This implies that if consumers find a product to be affordable and useful, privacy concerns will be diminished.  Our business model also presumes that organizations will pay for employees’ wearables. The same PwC report says that 67% of consumers want employers to pay for their wearables. The differentiation of our business model will depend on our ability to provide an employee-facing dashboard that employees deem useful enough to drive wellness program engagement.  Another risk | | | | | | | | | | | |  |
| **7. Customer Benefits** | | |  | For clients, we will analyze the business case to see if the savings justify the expenditure. We will use the attached value proposition spreadsheet to determine the project value assuming worst- and best-case assumptions.  Tangible savings for the client include:   * Decreased absenteeism * Increased productivity * Reduced healthcare costs   Tangible costs include:   * Hardware costs * Per-user program fees * Salaries for employees to oversee wellness program   + *Only if clients take advantage of anonymized, aggregated data to launch wellness initiatives* * Implementation cost   + *Only if clients need a custom interface/functionality*   Compared to traditional wellness programs, our service focuses on increasing employee productivity, by whichever measure of productivity the client selects. According to our value proposition calculations, increasing employee productivity offers gains exceeding those from reducing healthcare costs. Our platform combines both, giving us a distinct advantage.  In addition to these benefits, clients may identify other benefits such as improved work-life balance, increased employee satisfaction, and better corporate culture. In the sales process, we will speak with clients to prioritize the most pertinent benefits for the specific client. | | | | | | | | | | | |  |
| **8. Technology Architecture** | | |  | Using a Software-as-a-Service operating model, Vulpine Analytics will heavily leverage the low cost cloud computing solution, Amazon Web Services. The software will be build with:  AWS S3 - Cloud Storage  AWS CloudHSM - Infrastructure Security and Networking  AWS Identity and Access Management - User Authentication  AWS Machine Learning - Analytic Platform  AWS CloudFront - Content Delivery and Mobile API  Dell Boomi Data Integration  Amazon Web Services allows Vulpine Analytics to add computing power as needed while ensuring the industry gold standard for security and performance. It also provides more control over cost structuring and eliminates the need for upfront infrastructure expenditure. | | | | | | | | | | | |  |
| **9. Overall schedule/Work Breakdown Structure** (Key milestones & dates) | | | | | | **Responsible**  **individual** | | **Output (notes, diagrams, interviews, screen prints)** | | | **Date started if in progress**  **Or Expected completion date** | | **Date completed or date completion is expected** | | |
| Planning | | | | | | Eric | | interviews, notes | | | 1/26/2017 | | 2/9/2017 | | |
| Analysis | | | | | | Eric | | notes, charts | | | 2/9/2017 | | 2/20/2017 | | |
| Design | | | | | | Erika | | diagrams | | | 2/17/2017 | | 3/2/2017 | | |
| Implementation: Construction | | | | | | Derek | | testable prototype | | | 2/28/2017 | | 4/13/2017 | | |
| Implementation: Testing | | | | | | David | | prototype | | | 4/12/2017 | | 4/13/2017 | | |
| Installation | | | | | | Derek | | prototype | | |  | | 4/25/2017 | | |

References:

Absenteeism: <http://www.workforceinstitute.org/wp-content/themes/revolution/docs/Absenteeism-Bottom-Line.pdf>

Reduction: <http://www.chapmaninstitute.com/articles/05_TAHP_26_4_Meta_Evaluation_2012.pdf>

Participation: <https://www.dol.gov/sites/default/files/ebsa/researchers/analysis/health-and-welfare/workplacewellnessstudyfinal.pdf>

High-risk: http://www.lockton.com/whitepapers/Health\_Risk\_Solutions/Quinn\_Oneal\_Summer13.pdf