

TO: Planning Committee
FROM: Philippe Dolimier
SUBJECT: MVA Planning Group
DATE: 12/13/2017

Cover Memo

Introduction

This memo contains the documents needed to create an entire final report regarding the state of the Maryland MVA, its deficiencies, possible solutions, a plan of action, and all of the information about my final reader. It includes a Rhetorical Situation - Memo to document all the pre required information to understand the report - and the Final Report text (which documents the plan of action needed to take. The Final Report serves to persuade my final reader that my plan of action is the best possible solution to the given problem.

Abstract

This packet looks at my research and development of a plan to increase the satisfaction and efficiency levels of the Maryland MVA. The Maryland MVA has approval ratings lower than the average, and is lacking in the areas of technological expansion, administrative organization, and customer outreach. This research draws upon mostly primary sources including comparison of other states' DMV's, online testimony, and survey. Most prior research on the MVA focuses on how the MVA could improve to decrease customer wait time by looking at the root of specific problems. This focus allowed me to find specific solutions outlined in the Final Report. (102 words)

Glossary

DMV (Department of Motor Vehicles) - a state-level government agency that administers vehicle registration and driver licensing.

Landing Page - the section of a website accessed by clicking a hyperlink on another web page, typically the website's home page.

MVA (Motor Vehicle Administration) - Maryland's term for their Department of Motor Vehicles.

UX (User experience) - encompasses all aspects of the end-user's interaction with the company, its services, and its products.

Rhetorical Situation Memo

My audience is the MVA Executive Board, and my Final Reader is Ms. Christine Nizer, the Chief Deputy Administrator of Maryland Transportation Authority.

General Information

Ms. Christine Nizer has a Bachelors in Arts from Goucher College, and a Master's from Rutgers, The State University of New Jersey. She has been the Chief Deputy Administrator of Maryland Transportation Authority since March 2014, but previously joined the MVA in 2006 as Associate Administrator for driver and vehicle policies & programs. She was promoted to the Deputy Administrator for Central Operations and Safety Programs at MVS in early 2010. She has also held leadership positions as chair of the National Driver Registry Workgroup and chair of AAMVA's Driver Committee (Company Overview of Maryland Transportation Authority). Her Job-Related Responsibilities are to help oversee the decisions made by the MVA departmental-staff and oversees the high-level operations of the Division of Motor Vehicles. Her non-related responsibilities are serving as the Maryland State Highway Safety Representative (Department of Transportation).

Specific Information

When attempting to interview my final reader in the research stage it was very difficult to get an initial response, presumably due to Ms. Nizer's extremely busy schedule and my research not being on her priority list. But, I eventually got answers to many of the questions I asked. Her tone was choppy and perhaps rushed but was kind with her responses. She mentioned how the problems I raised were common areas of exploration. The reader has been dealing with the problems of long customer wait times since she entered the Maryland MVA and that they were extremely complex problems to solve. The MVA often attempts to solve these issues with their

customer service departments, but their budgets are government-level strict since they are a government department. My Final Reader probably has low expectations for the document since there is a sector dedicated to solving these issues, yet I believe I have strong insight and could change her view of my documents. I aim to have provide a strong opening to ensure she takes the time to analyze the final report.

Audiences' Organization

The MVA's mission statement is, "The MVA shall provide exemplary driver and vehicle services that promote Maryland's mobility and safety while enhancing process and product security.". Maryland's MVA has been strong historically, sometimes beginning national trends. In 1978, Maryland was the first state to enact a graduated licensing system requiring young drivers to complete a provisional licensing period (Trip Down Memory Lane). "The Maryland MVA has also innovated continuously, most recently installing a Central Scheduling System which enabled customers to schedule appointments on-line, [in 2008]"(Trip Down Memory Lane). This is where the innovations end on their website, indicating that they have both slowed with innovations and have neglected to update their website recently. In recent years they have sponsored some civil rights efforts, including Diversifying their leadership with focusing on creating an inclusive and diverse executive committee. The organization has dealt with the issue of efficiency and customer satisfaction since the 1970's where increased customers and safety laws lead to many more individuals using the MVA's services. They have been attempting to diminish these problems for over 40 years, with different techniques and innovations. With the balance of safety of customer vs. efficiency, it is difficult to solve both. My attempt is to reach the executive board and demonstrate the solutions that their board has not been able to implement.

How the final report will accommodate the Expert Reader

The reader is looking for information to raise their approval ratings, and increase the satisfaction for their customers. This is difficult to do with their strict budget, so I will attempt to outline the

best solutions which minimizes increased spending. The value systems of the MVA are creating strong and useful vehicle services for MD driver's. My solutions will improve the effectiveness of their systems and directly correlate to their values. Evidence that demonstrates that my solutions are cheap and effective are the best to use, this includes price modelling and factual evidence supporting the efficiencies of my solutions. My reader is aware of the advances of other DMV's nationally, but is non-technical, therefore is unaware of the cyber-steps that could be taken to greatly improve customer service and how inexpensive these steps can be. My reader will appeal to the notions of keeping costs low, as the budget is a very strict element that historically holds back innovations.

Conclusion

I will present my ideas persuasively to Ms. Christine Nizer in the Final Report. She works tirelessly to improve the state of the MVA therefore may look down on my research as she has a wider scope of vision on the issues, yet I bring technical knowledge and a diverse perspective that could be very useful.

TO: Planning Committee
FROM: Philippe Dolimier
SUBJECT: Solutions For Improving MVA Efficiencies
DATE: 12/13/2017

MVA Efficiency Improvement Plan

Philippe Dolimier

December 13, 2017

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Executive Summary

Laid out in this report is the Problem, Recommendations, and Implementation Plan for the MVA's transition of its current state of sub-par customer satisfaction and high customer wait times to a state of high customer satisfaction and reduced customer wait times. I offer my research to prove this problem is real with statistical analysis. Second, I exemplify my research of the root causes of these issues being, poor online presence and poor website design, customer disorganization, understaffing, and, forced arrival times due to inefficient operating hours. I then outline my recommendations as well as the implications of how these root causes can be solved, including their budgetary and feasibility constraints. My recommendations are 1) creating a new website layout with chart-centric data that will organize customers to reduce the customer's level of disorganization, reduce the amount of customers going in-person to an MVA when their task could be completed online, and improve their approval rate of the current frustrating site. 2) Changing the current schedule to match that of the most effective DMV, which stays open later on weekdays to disperse from all the customers visiting on Saturday mornings and creating bottlenecks in the queues, and 3) installing 24/7 kiosks which eliminates the scheduling issue since they can be use at any time by the customer, although this solution is very expensive. I then outline an implementation plan of the cheapest solutions, since the budget is extremely strict. I then analyze the Personnel needed for my implementation and finally outline the costs of this plan through a strict and accurate budget. My implementation will not only be extremely beneficial to the MVA's satisfaction rates, they are relatively hyper-inexpensive, as the implementation plan ends up costing the MVA less than \$1,000 in fixed costs.

Problem

The Maryland Motor Vehicle Administration is inefficient in terms of extended customer wait times and poor customer service, which leads to overall customer dissatisfaction.

In your 2014 Motor Vehicle Administration Annual Report, we see that although average customer wait time has decreased from 2008 (28 min per customer, and 44 minute average visit time), to 2011 at (22 min per customer, and 30-minute average visit time), it increased back to 28 minutes' average wait time and 36-minute average visit time in 2014(Chaffee 26). With more customers being served every year, these wait times are set to increase in the future at a continuous rate.

I am aware that these averages include all Maryland MVA locations. This means it includes all smaller locations, express offices, and satellite offices, with minimal wait times, which offset the overall average. The busiest MVA locations in 2014 had average wait times of: Beltsville: 69 minutes with customer satisfaction at 61.4%, Essex: 76 minutes with customer satisfaction at 65.6%, Gaithersburg: 72 minutes with customer satisfaction at 69.9%, and Largo: 81 minutes with customer satisfaction at 63.5%. The overall averages included full service offices, express offices, and satellite offices, the latter two having much lower wait times lowering the overall average.

These results parallel a DMV satisfaction Survey conducted in 2017 where 1575 people responded to the question: *Please rate your overall satisfaction with the services offered by your state DMV*. Under "Wait Times" on a 5 point satisfaction scale, 15.05% gave it a 1 - *Very*

dissatisfied and 16.19% gave it a 2 – *Dissatisfied (DMV Satisfaction Results)*.

1359 people responded to the question: *How long do you typically have to wait in line in order to receive service at your local 'DMV' office* There were 9 possible answers starting at *no wait time* and increasing by 10 minute increments until 1 – 2 hours and 2+ hours. 47.02% gave a response that was at least above 30 minutes.

1300 people responded to the question “Has a ‘DMV’ employee ever been rude to you?”.

32.85% responded *Yes* and 67.15% responded (*DMV Satisfaction Results*).

In our survey in October, I asked you “In the eyes of the current administration, what are the first two priorities to increase customer service at the busiest Maryland locations?”, with which you essentially responded that your customer service would best improve by diminishing time that customers spend waiting en queue, and making more tasks completed online (which is very difficult due to security reasons). Although I am unable to tackle government security legislation, I worked to solve the queueing issue.

My research has lead me to discover the root causes of poor online customer satisfaction, and long wait times at the DMV (which correlates to in-person dissatisfaction).

I have found in research that one root cause of online stress and online dissatisfaction comes from poor web layout and design. According to the psychological research of Brenda Barron, UX design graduate, if one follows the correct 21st century design rules, the user will associate pleasant emotions with your website company or product. The implication of this is that customer satisfaction will be improved by an updated design layout, which psychologically pleases the customer (Barron). One cause of our problem is the specific poor arrangement of the

MVA site, which does not follow good 21st century design rules. We found these specific root problems for our MVA customers from a user stress survey on what makes their online DMV sites sub-par (Perch). This Customer survey showed over 60% of MVA online dissatisfaction was attributed to not being able to find the customers' desired information quickly, without complicated navigation. The best DMV sites navigation-wise, also tended to have the highest ratings. Displayed in Figure 2 is the unpleasant, disorganized current layout.



Figure 1. MVA current website layout (mva.maryland.gov 2017)

Perhaps the biggest causes of the problem involves long wait times in physical DMV locations. Research has uncovered three roots of this problem.

Understaffing: “\$194,887,000 was budgeted to the MVA in 2017” (Operating Budget Data), you are obviously aware of this. Through analysis of the budget we find that it was all allocated. We even see that according the budget “Personnel costs increase by \$1.3 million due to a shift of 18 regular positions that administer the Maryland Highway Safety Office (MHSO) from the University of Baltimore (UB) to the Motor Vehicle Administration (MVA)” (Operating Budget Data). Since the government relies on strict budgets, increasing the staff is difficult without enormously increasing funds for the MVA sector entirely. The understaffing grows relatively to the size of the population surrounding areas near the MVA locations. Since the 2010 Census, Maryland has grown by just over 242,660 people, or 4.2 percent. Its numeric gain over the last five plus years is the 16th largest in the United States (Mdp States). This parallels the growth of the MVA which has only grown by 0.9 percent on average (Operating Budget Data). Thus, creating a larger gap in the employee-to-customer ratio. Note that we must remember that although the growth of the population is substantially more rapid than the employees, the customers visit the DMV on somewhat fewer occasions than before online technology was available.

Disorganized customers: We have found in our research that much of the wait times get amplified when customers are disorganized, increasing the length of their interaction with the check in desks. They also run the risk of being turned away to retrieve forgotten documents at home, due to the strictness of MVA’s policies. This is another root of longer wait times, which only become longer with this problem. (DMV Wait Times)

Forced arrival times: The Maryland MVA is open **Monday-Friday 8:30am to 4:30pm** for all services and every **Saturday 8:30am to noon** for Driver's License Services Only (Phan Hien). Maryland's MVA's are open all weekdays yet have no extended hours for customers to visit after work assuming most work day jobs. Saturday visits are also reserved for License Services, which means an individual wanting to visit for Vehicle Services **MUST** take work off during the week to visit. These hours force people who work 9-5 jobs to all visit on Saturdays, unless they take off work. This exponentiates the amount of people visiting on this day every week thus creating longest wait times on Saturday because the hours are the shortest. This parallels to other states interestingly, such as the highest rated in-person DMV, Indiana's. Indiana BMV's are open **Tuesday 8:30am-7:00pm**, on other days from **8:30 am-5:00 pm**, and on Saturdays from **8:30am-12:30pm**, whilst being closed Sunday and Monday (Indiana BMV). These extended hours on Tuesdays allow customers who work general day jobs to be able to visit DMV's weekly without taking off from work if their career does not allow them to.

While the Maryland MVA's wait times and satisfaction results are better than the National average, the customer maintains a less than ideal experience, and more needs to be done to decrease wait times and improve customer service especially considering more customers are visiting the locations every year, and if nothing is done the problem will grow.

Criteria and Recommendations

Through my research I have found that are three main areas to attack to improve customer service and decrease customer wait times. These are the MVA's online services and presence, technological advances, and customer scheduling and interactions. Our solutions serve to solve

the roots of our problems and not their effects. Since we are all aware of the strictness of the government budget designated to the MVA, the solution must not tremendously increase spending. I have outlined recommendations which would all lead to helping solve the root causes of our problems.

Creating easier navigation and more readily available information (i.e. charts and graphs) for the site will also reduce frustration felt by the user, and make finding information (like what documents to bring to the DMV, and what can be completed online) easier to find. This will increase the customer's' satisfaction toward the MVA's online platform. This will also also reduce wait times because people won't be struggling to search for documents when they arrive at the MVA. Renovating a site is also relatively cheap, and a one time effort that does not need increased expenses to upkeep.

Solving the understaffing issue is extremely difficult due to a strict budget. Unless the MVA were to hire and cut costs in other sectors, this is a quasi-permanent issue. We would have to fix the efficiency of each interaction to improve customer wait times. This could be implemented by fixing the 2nd root issue for wait times: Disorganized customers. A possible solution for this issue would be the same solution for solving the frustrating websites, a website renovation. A solution could be creating a clear cut chart-centric website layout which easily shows all possible DMV related tasks vs their online availability vs documents needed to bring to MVA to complete, as shown in the example below. The figure below provides an example of a chart-

Task	Documents Needed	Executable Online
License Renewal	Current drivers license, Full legal name, Social Security number, Proof of legal presence, identity, Proof of residency	If Under 40
Vehicle Registration	Proof of Title in your name, Proof of Passing an emissions test, Vehicle safety inspection proof, Car insurance coverage.	No
Learner's Permit	Proof of your age and identity(Birth Certificate, Military ID, Transcripts), Proof of your Social Security number, 2 documents to prove you are a Maryland resident.	No
Driver's Test	Proof of identity(Learner's Permit), Proof of residency	No

centric design to be displayed directly on the landing site for ease of use.

Figure 2: Chart-Centric Design for MVA Landing Page (Philippe Dolimier 2017)

Customers could compare and contrast what documents are needed for what tasks quickly and easily before visiting the location. This would allow customers to log on to the MVA site and with no further navigation and be able to view all the documents they need to bring to the

physical MVA for the process they need to complete to ensure preparedness. They would also see if their process could be completed online, and would reduce traffic from customers who don't need to physically visit the MVA. Choosing to not implement this solution will not only let the problem of low satisfaction of the MVA's online presence, but as technology increases for other sectors and every organization worldwide, the MVA's site will seem, in contrast, even more dated than it already is. The site has a 1990 esque that follows none of the current design practices (minimizing amount of clicks, effective color and layout choices, font styles, and navigational choices). This task is essential for a company in the 21st century - having a strong online presence. There are no constraints associated with this.

Our Research led us to find a DMV with solutions that the MVA could adopt. Looking at the satisfaction results and logistical scheduling of Indiana's BMV, we see that extended hours of the Indiana BMV on Tuesdays allow for an increase in customer satisfaction for those who cannot take off from work and use these hours to their advantage. Costs of operation still remain low because their weekly hours are still four hours less than the Maryland MVA since they are closed Mondays. This implies the scheduling can be made more efficient without adding time to the weekly hours of operation. Indiana BMV's are open **Tuesday 8:30am-7:00pm**, on other days from **8:30 am-5:00 pm**, and on Saturdays from **8:30am-12:30pm**, whilst being closed Sunday and Monday (Indiana BMV). These extended hours on Tuesdays allow customers who work general day jobs to be able to visit DMV's weekly without taking off from work if their career does not allow them to. This could help fix the 'forced arrival times' and disperse the customers into different time slots. This is also inexpensive since there are no associated costs with re-organizing the schedule.

Another outlined solution for decreasing the strict schedules and working around the ‘forced arrival times’ could be 24/7 kiosks to reduce wait time and fit day-time workers schedules, which have been previously discussed in my past memo. The problem with this solution is that it would require significant increases in the MVA budget, making it an INVESTMENT. The kiosks require significant levels of funds to create, implement, and upkeep. It is worth looking into on a medium scale, or perhaps implementing in one or multiple locations first, but would require a budget increase or a strong plan of re-budgeting so that too much money wouldn’t be spent.

Implementation Plan

We aim to choose the solutions that minimize budgetary expenditures. Outlined are the steps to enact each of the budget-fitting solutions.

The implementation of a new site requires a full audit of the MVA landing page and child-sites. Hiring a Professional Developer to completely revamp the site isn’t even needed. The only person we need to hire, since the back-end would remain mostly unchanged, is a front-end website designer or UX expert. The site needs to look more modern, and display the information in a more efficient way, but the tools underneath need not be changed.

First, you would need to find a website layout or UX professional. www.upwork.com, is a site that hosts freelance developers for a wide variety of computer science related tasks. Second, we would allow them to work creatively within the guidelines that the customer must be able to find which documents are needed for their tasks, and whether they need to visit a physical MVA location This is the information that will lead to each transaction from customer service

employee to customer to have a reduction in time, and will lead to customer's only visiting the MVA when it is necessary. The rest of the design decisions can be made by the professional, who knows how to minimize consumer stress, and maximize the efficiency of the site.

The second plan involves the implementation of a new MVA scheduling tactic. The schedule would be re-imagined to mimic that of Indiana's BMV. Indiana's BMV being open on Tuesdays until 7, and Saturdays, allows 2 options for customers to not take off work and visit the BMV during the week. This schedule change to **Tuesday 8:30am-7:00pm**, on other days from **8:30 am-5:00 pm**, and on Saturdays from **8:30am-12:30pm**, and being closed Sunday and Monday. Changes scheduling conflicts and still leaves 4 hours less a week, which would actually cost less to implement. This is why I suggest adding 2 more hours on wednesdays and thursdays as well, which keeps operating costs the same. The DMV would be open the same amount of hours per week, but allow day-working adults to visit without having to wait until the weekend to avoid taking off work.

The final schedule would be **Tuesday, Wednesdays, Thursdays 8:30am-7:00pm**, Friday from **8:30 am-5:00 pm**, and on Saturdays from **8:30am-12:30pm**. This schedule breaks up the busy Saturdays and would redistribute customers to different times to minimize customer wait times, such as happened in Indiana.

There are hundreds of variables that make each individual MVA location different, if this schedule works perfectly in some, and less than perfect in others, than small adjustment changes by general managers could be made. The difficulty you currently experience is attempting to

create a master schedule that works in some locations, but doesn't necessary work best for all locations. If no schedule change is made, Saturdays (the busiest day of the week at DMV's), will become exponentially more crowded due to more customers over time, until wait times are too long to manage customers whatsoever.

Personnel

These solutions require NO extra personnel. The professional web developer would be hired from another organization or freelanced, for a one time job. The regular employees of each MVA location would be unaffected by this step (except to familiarize themselves with the new site once it is complete). The Personnel required to work the new schedule would be the same base, yet their individual working shifts would be altered to align with the new plan. For each location, the general managers will work to keep track of customer bases at different times, and decide which new times are the busiest, to schedule more employees for these times throughout the week, without necessity of adding new personnel.

Budget

This entire renovation relies around the strictness of the budget. The kiosk options, while recommended and worth looking into, are not outlined in the implementation due to their costly nature.

I have only included the implementation of the solutions that require minimal extra costs.

Creating an entire website with no prior frontend, backend, or database system of this scope

tends to cost 10,000 for a development individual or team, from start to finish. The MVA, which could spend \$10,000 to recreate the entire site from top to bottom, wouldn't even need to since the backend and database system are create and do not need to be changed. A good front-end (HTML, CSS, and Javascript) developer can be found on upwork. I have found and contacted a respected and seasoned developer, Milan A. for an estimate on Upwork. He would charge \$22.00 an hour for development(A, Milan). Since the scope of this project is medium or even relatively small, an estimated 30-40 hours would be needed to complete the project, totalling to \$660-\$880. Since the MVA is a government organization, you may need an internal IT candidate to complete the project, in which case they would be paid from their current salary.

Since the scheduling changes require no additional costs, they play no effect on the budget.

These changes are immensely cheap in terms of the government's entire budget, and with the increased customer satisfaction that they create, along with no downside, are obvious choices to pursue.

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