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Lewis College of Business Faculty Share Research and Expertise into Global Effects of the Coronavirus Pandemic

Since the World Health Organization declared COVID-19 a global pandemic on March 11, several faculty members from Marshall University's Lewis College of Business have shared their expertise, including new research, on the virus's effects on business. Here are a few of their stories.

Impact on Marketing

Our marketing faculty members Tyson Ang & Shuqin (Monica) Wei are developing highly relevant and timely Marketing research projects pertaining to the COVID-19 pandemic, that are summarized below:

(1) Social Distancing Project

This research project has been developed by Tyson Ang and Monica Wei, Assistant Professors of Marketing, in collaboration with Dr. Denni Arli, Assistant Professor of Marketing at University of Minnesota Duluth. Drastic public health measures such as social distancing or lockdowns can reduce the loss of human life by keeping the number of infected individuals from exceeding the capacity of the health care system but are often criticized because of the social and the economic cost they entail (Bodenstein et al., 2020). Consequently, many people refuse to fully socially distancing from others. Public health officials have issued strong warnings about the danger we face but the problem persist. To fill this gap, this study will explore why many people refuse to practice social distancing. The results of this study will have implications for public health policies on how to encourage positive public health behavior amid a pandemic such as COVID-19. The project is IRB approved, and data collection is in progress.

(2) The Coronavirus (COVID-19) Crisis: Digitizing Customer Citizenship Behaviors

This research project has been developed by Tyson Ang and Monica Wei in collaboration with Ben Eng. The current Coronavirus (COVID-19) crisis has brought about unprecedented challenges to many service industries and employees. With the temporary suspension or reduction of many traditional, in-person services (e.g., restaurants, retailing, haircuts, child care, entertainment), customer-to-customer (C2C) interactions have become widespread and crucial. A subset of those C2C interactions are termed customer citizenship behaviors (CCB), which are unsolicited, helpful and constructive behaviors toward other customers, service employees and the firm (Anaza and Zhao, 2013). With an imperative need to practice social distancing, many new forms of CCB are emerging, primarily on digital platforms. For example, we are witnessing an increasing number of online communities created to help other customers by sharing essential supplies, helping with day-to-day needs (e.g., picking up groceries, posting mails, daycare for kids), sharing health information and tips, and providing emotional and social support (e.g., virtual gatherings). Also, more and more customers support and advocate for small businesses and their employees by ordering take-outs or deliveries, purchasing gift cards, and recommending the businesses. By utilizing thematic analysis, this study aims to conceptualize and uncover the various dimensions of CCB amid a pandemic such as COVID-19. Data collection for this project is in progress.





Dean Avi Mukherjee and Dr. Nancy Lankton have proposed a Special Issue on COVID-19 for the *SAM Advanced Management Journal* as Guest Editors. The Special Issue is titled: "Managing the Unseen - Pandemic Prophylactics, Placebos, and Panacea".

Introduction and Theme

The World Health Organization declared COVID-19 a pandemic on March 11, 2020 when the disease had spread to 114 countries, infected more than 118,000 people, and killed almost 4,300. Three weeks into April, over 2.6 million people from over 180 countries worldwide have been infected with the virus and over 185,000 people have died. There are over 850,000 cases in the US and over 40,000 deaths. COVID-19, also known as coronavirus, is a respiratory illness that spreads rapidly through contact with other people who have the virus. Many people carry the virus with very few or even no symptoms. Older people with certain underlying conditions are most at risk for needing acute medical care and not surviving the complications. Coronavirus has changed the world and the country in a matter of weeks.

Amidst the loss of life and the tremendous pressure put on health systems caring for the sick and vulnerable, organizations of all kinds have been facing significant challenges. The Center for Disease Control and Prevention (CDC) in its initial response to the pandemic, began promoting the practices of social distancing and good hygiene, and staying home when possible. Based on the rapid spread of the virus and data collected from other countries, governors began issuing stay-at-home orders to limit travel and social gatherings to essential personnel only. Schools closed, travel stopped, businesses shut down, and many people began working from home and bring laid off altogether. Hospitals became overcrowded as people with symptoms came in for testing and care. The federal and state governments increased production of protective equipment and ventilators via public-private partnerships, and shipped the supplies to hospitals in need. The stock market has seen unpredictability, with large drops triggering market-wide circuit breakers four times in March. The government campaign of "15 Days to Slow the Spread" was extended to "30 Days to Slow the Spread" as the US and other countries prepared for more infections and loss of life.



Now as the US has experienced more incidence and deaths of the virus than any other country, it is beginning to phase back to what many call a "New Normal." Based on up-to-date data and readiness, the CDC and White House issued a phased approach for opening up America that mitigates risk of resurgence and protects the most vulnerable. Businesses and employers of all types will need to adhere to new federal and state guidelines. Managers are being asked to follow on-the-spot incident response and recovery plans and to innovate and develop flexible policies that can sustain and support organizations throughout the pandemic. Unforeseen issues will continue to arise and reverberate through communities, organizations, industries, and businesses of all types. Already unprecedented activities such as insurance companies rewarding customers with monies saved from lower travel, manufacturing companies rapidly changing production lines to create needed health equipment, supply chains being interrupted at the global level, taxing authorities extending deadlines for the first time ever, and technology companies creating drones that can measure workers' temperatures, have taken place and will continue to emerge as the crisis endures. This Call for Papers solicits manuscripts describing and analyzing the intersection of management, COVID-19, and the workplace to inform academics and practitioners, so they can emerge with new and effective approaches to advance management during crisis situations.

Topics for the Special Issue

Although manuscripts on any topic related to management amid the COVID-19 virus are welcome, papers on the following topics are highly encouraged.

- The future of work post COVID-19
- Supply chain challenges, strategies, and solutions
- Human resource management challenges during and after COVID-19 (telecommuting, hiring, worker safety, etc.)
- Forecasting for pandemic incidences and outcomes
- Public policy challenges
- Role of government versus private sector
- Global issues in managing COVID-19
- Accounting, auditing, and tax issues related to COVID-19 (going concern, internal controls, write-offs, tax estimates, etc.)
- Financial management during COVID-19
- Small business challenges
- Crowdsourcing during COVID-19
- Distance learning opportunities and challenges
- Public health issues
- Epidemiological research
- Family and work balance during stay-at-home
- Managing remote teams
- Perceived Lives versus Livelihood trade-off
- Leadership challenges during crisis
- Technology access, literacy, dependence and inequity
- Trust, privacy and security in the COVID-19 age



- Statistical modeling and forecasting of disease spread
- Marketing effectiveness during COVID-19
- Firm reputation and public relation issues
- Role of social distancing in service design
- Use of Design Thinking for crisis management
- Legal and ethical challenges for the firm employee relationship
- Understanding and modeling contact tracing
- Global trade and foreign relations
- Stock market reactions during and after COVID-19

Research Methods

Quantitative and qualitative studies, including management and strategy models, experiments, correlational studies, causal studies, comparative studies, descriptive studies, literature reviews, meta-analysis, case studies, viewpoint articles, pedagogical innovations, and book reviews are all welcome. Papers can adopt a historical, current or future perspective.

Submission Process

Manuscripts should be submitted no later than August 1, 2020. The special issue is expected to be published by December 2020. All manuscripts will be subjected to double-blind peer review and should follow the general guidelines for authors at https://samnational.org/wp-content/uploads/2018/06/GUIDELINES FOR AUTHORS-AMJ-06282018.pdf

Manuscripts should be submitted electronically to http://samnational.org/journal/amj-manuscript-submission-form/

Please contact the Editors of this special issue at the following email addresses, if you have any questions: Dr. Avinandan Mukherjee at mukherjeea@marshall.edu and Dr. Nancy Lankton at lankton@marshall.edu.



Swiss National Science Foundation Grant Reviews



SWISS NATIONAL SCIENCE FOUNDATION

Dr. Alberto Coustasse and Dean Avi were invited to serve as expert reviewers for the Swiss National Science Foundation Special Call for Grant Proposals on Coronavirus. Following the serious SARS and MERS epidemics of the past, another coronavirus has led to the COVID-19 epidemic, a public health emergency of global proportions. An intensification of research efforts is therefore urgently needed. For this reason, the Swiss National Science Foundation (SNSF) is supporting projects involving research into coronaviruses - to tackle the current crisis and prepare for likely future epidemics. A budget of five million Swiss francs has been earmarked for this special call.

Dr. Coustasse reviewed the following 9 proposals:

- 1. "Therapeutic Sovereignty: Healthcare system risks emerging from COVID-19" related to the management of health care supply chain, ethnography, infectious diseases, epidemiology
- 2. "Building and maintaining resilience in crisis: learnings for hospitals withstanding the COVID19 pandemic in a real-time study" related to the management and sociology of crisis in hospitals
- 3. "Beyond the virus: ensuring continuity of care for people with chronic diseases during epidemics" related to the management of chronic diseases in times of crisis, cardiovascular diseases, metabolic disorders, public health and health services
- 4. "Remote working and virtual collaboration before, during and after the COVID-19 outbreak: Learning from an unwilling natural experiment" related to the management of health care workforce and use of IT, applied psychology, social sciences
- 5. "Learning from the COVID-19 epidemic: A stress test to improve the future health care system and patient care responses to epidemic threats in Switzerland" related to damage that COVID 19 will have on the chronic care population and in the healthcare infrastructure, health system preparedness, health care utilization
- 6. "The impact of the Coronavirus pandemic on mental health service users, mental health professionals and mental health care services in Switzerland An exploratory mixed-methods study" related to mental health of health care workers in the Swiss system
- 7. "How to protect healthcare workforce during an epidemic outbreak: Modelling a desynchronization strategy from the COVID-19 pandemic" related to the management of the health care workforce and in not the health workforce. Used mathematical models to estimate productivity and economic modeling as well for productivity by integrating cost per TACS points.
- 8. "Impact of the corona outbreak on different health care setting in the canton of Bern: a reflective study (Acronym: REFLECT)" related to nursing burning out, epidemiology of long term settings and qualitative methods
- 9. "Agent-Based Modelling of Public Health Interventions" related to Artificial Intelligence, public health, epidemiology, and agent-based modeling

Dr. Mukherjee reviewed the following 2 proposals:

- 1. "Lessons learned from the SARS-CoV-2 pandemic in Switzerland: Preparedness and response of the Primary Care Sector Identification of key elements to improve future pandemic management and communication"
- 2. "Selection and implementation of infection prevention and control measures targeting SARS-CoV-2 cross-transmission and healthcare-associated COVID-19"



Ventilator related Medication Shortages as a result of COVID-19: Patient Safety Implications

Dr. Alberto Coustasse, Professor of Health Care Administration, is collaborating with Kenneth Maxik, MBA (vice president of operations support at CompleteRx in Lexington, Kentucky), and Craig Kimble, PharmD, MBA (director of experiential learning, manager of clinical support services, and associate professor of pharmacy practice at Marshall University School of Pharmacy) on this topic.

Given the COVID 19 pandemic crisis, and the effect in the health care supply chain, the trio examine whether healthcare organizations should control inventory management through the use of a just in time replenishment model. This inquiry is related to supply-side shortages pertaining to equipment, medication, and personal protective equipment in the treatment of this viral disease. The target journal for this research is the *Journal of Healthcare Management*, the official journal of the American College of Healthcare Executives (ACHE).

A Design Thinking Perspective to developing Contact Tracing Solutions for COVID-19

This research, proposed by Dean Avi and Dr. Nancy Lankton, will investigate solutions pertaining to the contract tracing challenge for COVID-19 using a design thinking methodology. Contact tracing is a disease control approach employed by local and state health departments to identity, inform, and monitor individuals who might have come in contact with a person who has been diagnosed with an infectious disease. Contact tracing is a multi-pronged approach to stop the spread of diseases and requires highly skilled, trained personnel. Contact tracers need to quickly locate and talk with the patients, assist in arranging for patients to isolate themselves, and work with patients to identify people with whom the patients have been in close contact so the contact tracer can locate them. The actual number of staff needed is large and varies depending on the number of cases diagnosed each day and how quickly they are isolated, the number of contacts identified for the infected people and how quickly they are notified to stay home and self-monitor. Done manually, this process requires a lot of people. Some experts estimate that the US will need around 100,000 contact tracers to manage COVID-19.

Digital contract tracing might be a solution. The Center for Disease Control and Prevention, in fact, recognizes that digital tools can expand contract tracers' reach and efficacy. However, while digital contact tracing methods have been proposed by technology companies such as Google and Apple and have been used in other countries, these methods have not been accepted in the US. One of the possible reasons for rejecting digital contact tracing includes the inability to ensure privacy and security of personal information. With little academic work investigating this issue, more research is needed to better understand consumers' feelings.

Design thinking is a problem-solving technique that involves exploring and reframing complex challenges to produce innovative solutions. The first step in design thinking is customer empathy that involves connecting with the people for whom a product or service is being developed to gain a deep understanding of their needs, emotions, and situation or "seeing the world through their eyes" (Bason and Austin, 2019). We employ the design thinking approach to gain a deep understanding of consumers' viewpoints, both for and against, using digital contact tracing as well as hybrid and manual options. The project has obtained IRB approval.