Florida Atlantic University

Management Information Systems

ITOM Department

Program Review

March 22-25, 2021

Program Review Team

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OVERVIEW

This report provides the findings of the review team for the Department of Information Technology and Operations Management and its academic programs, in the College of Business at FAU. The findings are based on the department self-study document, and the information shared by faculty, students, and administrators during virtual meetings between March 22nd and March 25th, 2021. During the virtual visit the review team met with:

- Russell Ivy, Senior Associate Provost for Programs and Assessment
- Daniel Gropper, Dean, College of Business
- Karin Scarpinato, Senior Associate Vice President for Research
- Bob Stackman, Dean, Graduate Studies
- Edward Pratt, Dean, Undergraduate Studies
- Dr. Paul Hart, Associate Dean of the College of Business
- Tamara Dinev, Chair, Department of Information Technology and Operations Management
- Adjunct Faculty: Mr. Dennis Battistella, Dr. Mehran Basiratmand, Dr. Oge Marques, Mr. Rhian Resnick, Mr. Danny Sementilli, Mr. Omar Toleda Lopez
- Instructors: Dr. Pauline Chin,Dr. Karen Chinander- Dye, Mr. Lawrence Feidelman, Mr. Mircea Marandici, Dr. Mary Schindlbeck, Dr. Bharti Sharma, Dr. Jonathan Sweet
- Executive Programs Representatives: Dr. Ken Johnson, Associate Dean, Mr. Vegar Wiik, Assistant Dean, Ms. Sybil Alfred, Director
- Dean's Office Representatives: Dr. Siri Terjesen, Associate Dean, Ms. Kimberly Paulus, Ex Dir of Student Academic Services, Dr. Marc Rhorer, Assistant Dean
- Associate Professors and Professors: Dr. Sunil Babbar, Dr. Stuart Galup, Dr. Jahyun Goo, Dr. Jim Han, Dr. David Menachof, Dr. Derrick Huang, Dr. Ravi Behara, Dr. Chul Woo Yoo
- Assistant Professors: Dr. Milad Baghersad, Dr. Mohsen Emadikhiav, Dr. Inkyoung Hur, Dr. Magno Queiroz
- Graduate Students: Ms. Jessica L. Cody, Ms. Emily S. Festin, Mr. David M. Goldstein, Mr. Jonathan A. Rivas
- Undergraduate Students: Ms. Pamelina A. Baglio, Ms. Katie Hoang, Ms. Tulsi A. Mistry, Mr. Raymond V. Panuela

The Information Technology and Operations Management (ITOM) Department has undergone a significant transformation since the last program review was conducted in 2013 in terms of program offerings, research orientation, and faculty hiring. *Our overall assessment is that this is a strong, dynamic, forward-looking, innovative department, on a strong positive trajectory.*

The Department now has 14 tenure-track faculty, seven full time instructors, and 10 adjunct instructors. The tenure-track faculty is well balanced across ranks and includes five full professors,

five associate professors, and four assistant professors. Three of the full-time instructors are senior instructors. Tenure-track faculty who are research-productive are on 2:2 teaching loads, whereas instructors are on 4:4 teaching loads.

The Department offers BBA/BS in Management Information Systems degrees with two concentrations in Business Analytics and Cybersecurity, an accelerated combined 5-year BBA-MSITM degree, an MS in Information Technology Management (MSITM) degree, and a new MS in Supply Chain Management degree, initiated based on recommendations in the last program review.

The Department has implemented many of the recommendations made in the prior program review. These efforts have been comprehensively described in the department self-study and we briefly summarize them below.

In the remainder of this report, we note the strengths of the department and list the challenges and opportunities that we observed. We also provide specific recommendations that focus on addressing those challenges or on leveraging untapped potential and opportunities.

MAJOR CHANGES SINCE PRIOR REPORT

Three goals were recommended in the last program review: (1) To distinguish and brand the Department and the College in Business Analytics; (2) To strengthen the area of Operations and Supply Chain Management; (3) To enhance the quality of the undergraduate MIS programs and the graduate MSITM program. ITOM has made sufficient progresses with the following major changes:

- *Business Analytics*: Business Analytics has been added as a concentration in both the MSITM program and the MBA program. A Big Data Analytics Graduate Certificate has been created jointly with Computer Science. These new concentrations and certificates have been popular and in high demand.
- *Operations and Supply Chain Management*: An MS in Supply Chain Management has been approved and the first group of students will be accepted in 2021.
- *MIS and MSITM Programs*: ITOM has significantly updated its curriculum in response to the renewed demand for programming skills, including more frequent offerings of the core programing course (ISM 3230), adding new courses in Mobile Development (ISM 6058 and ISM 4053), and Web Development project. These courses incorporate additional skills required by industry, such as Python, R, and social media analytics. The enrollments in these courses have become stable and healthy.

- *Strategic hiring and faculty promotion*: The Department hired four new tenure-track faculty and instructors, including a leader and another tenure tracking faculty in SCM, to help achieve its strategic goals. Two faculty were promoted.
- *Healthy enrollments*: Both the MIS and MSITM have seen significant growth since the last review: the MIS major grew 44%, and the MSITM 128%. These are the result of successful recruitment efforts and curriculum overhaul, as well as market demand. The MSITM also benefits greatly from the Accelerated Combined 5-year BBA-MSITM program, which is now the preferred option for pursuing an MSITM degree.

STRENGTHS

Curriculum

The review committee was impressed with the breadth and depth of the curriculum offered by the ITOM department. The curriculum contains a classic core of MIS courses, supplemented with an excellent array of advanced software development, IT management, business analytics and cybersecurity courses. Courses are kept current with continual updating and improvement activities among faculty and industry colleagues. The recent introduction of Python and R in the advanced analytics course, and the new social media and app development courses, are examples. Within the past six years, ITOM has introduced 20 new courses and gained approval for 2 new degrees, 2 new concentrations, and numerous new certificates which is a remarkable achievement and one that illustrates the forward momentum of the department.

In terms of pedagogy, ITOM courses include significant hands-on activities and real-world projects (both individual and group) reflective of the department's strong community/industry connections and the faculty's industry experience and expertise. Industry experience and currency is especially strong for adjunct faculty. The new role of Program Director for the department facilitates student and industry engagement, including mentorship and internship opportunities, which translates into jobs for graduates and industry input and relevance for the curriculum. Students are highly engaged in the classroom and in the MISA student-run professional organization. Both undergraduate and graduate students view the faculty as relevant, knowledgeable and caring.

Essential to student success in ITOM programs is the accessibility of courses to the FAU student population. Flexible modes of instruction in the Master's programs, where a course is offered online one semester and in-person the next, gives working students maximum flexibility and alignment with their individual needs. For undergraduates, the department's close working relationship with college advisors provides needed guidance to create schedules that align with

their individual needs as well. These are examples of the structure of student support the department has built.

As demonstrated by the aggressive introduction of new courses and degrees in the past few years and the culture of collaboration and continuous improvement established by the department head, the review committee feels assured that ITOM's curriculum will continue to be current and relevant and its student support successful.

Faculty and Research

The ITOM department appears to be well respected and held in high regard by the administration of both the college and the university as a high-performing, innovative, proactive, and strongly functional part of the college and the university. The faculty and administration uniformly praised the strong leadership provided by the Chair, Tamara Dinev, and how instrumental this leadership has been to the growth, culture, and initiatives of the department. ITOM faculty are heavily engaged with the department, proactive, and ready and willing to help with initiatives. The department appreciates the strong support for their initiatives and programs from the dean's office.

The department has a warm, collegial, welcoming, inclusive, and supportive culture that was noticeable in all of our conversations across tenure-track faculty, instructors, and adjunct instructors. This is one of the strongest assets of the department and an important factor in faculty retention for both tenure-track and non-tenure track faculty. There also exists a nurturing environment for young faculty who feel mentored and supported not just in terms of their research, teaching, and professional development but also personally. In addition to mentoring by senior faculty, the chair creates the conditions for junior faculty to succeed in their research by shielding them from service, minimizing their number of preps, and being accommodating in terms of when they teach (e.g., 2-2, 3-1).

The department is on a positive trajectory in terms of research. Several factors have contributed to this. First, the department has recently strategically hired four research-active assistant professors. Second, the college has reduced teaching loads for research-active faculty from 3-2 to 2-2. This reduction is particularly consequential for information systems faculty because rapid technological advances require constant updating of existing courses and the introduction of new courses - both of which are time consuming. Finally, the college has provided performance-based incentives in terms of summer support based on publications in leading journals. The last two factors have provided strong incentives and also time to engage in research and publish in high quality journals. They have also "re-energized" the research-active faculty who feel recognized and appreciated. The committee views these as critical success factors in sustaining continued research productivity and in raising the research profile of the department.

The longevity of the department's instructors and adjunct instructors is also a noteworthy strength because it enables continuity and preserves organizational memory. The inclusive culture of the department across activities is a contributing factor. The instructors and adjuncts are an integral part of the department and feel valued and appreciated by the tenure-track faculty.

Student Success

Our interviews with students, faculty and administrators consistently point to a student-centered department, committed to the success of its students. This is evident across a number of student success initiatives and outcomes:

Professional Development – The Department and College have created multiple successful professional development opportunities for students. ITOM identified and established strong ties with 5-10 primary local organizations that regularly hire its students. In collaboration with these, ITOM was able to place a good number of students in internships (218 MIS since 2014), many of which led to permanent jobs (100+ since 2014). The ITOM Advisory Board members, including select executives, offer innovative mentorship to students, through job shadowing, company tours, regular meetings, etc. The department also has effectively utilized its alumni to connect and help students. Students interviewed are extremely appreciative of such mentoring and internship opportunities. We would encourage the department to continue working with the College and University career services on such initiatives.

Student-Centered Department Culture – The students felt the department listens and has a clear understanding of their needs. Like any information technology, the demands for MIS skills always change. The department has worked diligently to revamp the programs to match continuously evolving industry needs. The students have access to effective advising from the Department, Program Director, and faculty, which give them a strong sense of community. They expressed the desire to contribute back to the department after graduation.

A Strong Program Director – The Department, from administrators to students, spoke highly of the MIS Program Director. It is clear that the Program Director has been the key for successfully running the MISA, mentoring students, and bridging ITOM students with local industry.

Highest Salary in COB for BBA – Based on information in the self-study, MIS BBA graduates earn the highest salaries of all undergraduate Business majors at FAU and enjoy a high placement rate. This is supported by the data from the Florida Education and Training Placement Information Program (FETPIP).

100% Placement Rate for MS ITMT for 7 Years – This is an amazing record. The self-study report indicated that many factors contributed to this success, including dedicated advising from the

Program Director and Department Chair, internship and class project opportunities with local industry, the overhaul of curriculum, MISA activities and others.

MISA – MISA is recognized as one of the most vibrant and active student groups by the FAU Career Services. With both undergrad and graduate student members, and its events well attended by students (40-50 per event), it effectively bridges ITOM students with local industry. Students interviewed are all enthusiastic about MISA and benefited directly from involvement in its various activities.

CHALLENGES

The ITOM department faces some challenges that are shared with similar programs across academe and other challenges that are unique to its own programs and university. We describe these briefly here.

Staying current – This is a challenge for all departments and programs in MIS. Technology advances rapidly and even courses that have the same title and have been taught year after year can have drastically different content depending on new software, new tools and techniques, and new laws and industry practices. Thus, keeping faculty up to date is as important as keeping students up to date. This is a constant struggle, challenge and opportunity.

Growing competition – Business analytics, cybersecurity and information technology are hot topics and, especially in graduate programs, competition is getting intense. Determining how to market your program and how to differentiate your program from others is critical to a successful and sustainable program. With more master's programs delivered online, competition can come from big name programs across the country and across the globe. Since price is sometimes a determinant of quality, undercutting the competition does not always bring in more students. Positioning your programs in the marketplace to be profitable and at the same time attracting a critical mass of students can be challenging. Cannibalizing current graduate programs with good reputations to offer more niche degrees can be risky. Along with competition for students, comes competition for faculty and staff.

Determining the right mix of course delivery modes post-pandemic – This is a concern of every institute of higher education. Will students be more attracted to programs that offer face-to-face courses and high touch, or will they be drawn to programs online that provide convenience, flexibility and high tech? From the pandemic, we have learned the efficiency of online learning, but how do we balance efficiency with mastery of the subject manner and the communications and interpersonal skills that are enhanced by live, in-person interactions?

Diversity - Diversity of faculty is a problem across business schools and especially in MIS programs. Diversity, in terms of race and gender, is a well-publicized problem in the IT industry. Recruiters will be looking for a diverse slate of students. The students at FAU and in the MIS major at FAU are more diverse than most universities. The tenure-track faculty, while diverse in terms of ethnicity, are predominantly male: only two out of 14 faculty are female. Female faculty are more plentiful in the Instructor ranks. It is important for students to see themselves represented in professional positions of leadership.

Faculty retention - In recent years the department has lost several faculty, some of whom were highly research productive, to retirement or to institutions that provided career opportunities for spouses. Otherwise, the faculty in ITOM show a remarkable longevity in the program, including adjunct faculty. The problem of faculty retention may arise from the Assistant Professors and other recently recruited faculty who are building a strong research agenda. The department has made important strategic hires in the past three years to strengthen its research reputation. Highly successful researchers are ripe for recruitment by other universities. It is imperative that the department keep its summer support and reduced teaching load incentives in place to avoid faculty retention problems.

Branding the department – ITOM has expanded its course and degree offerings into supply chain management, cybersecurity and business analytics. This is not uncommon for an MIS department; however, it can sometimes get confusing for students and potential students. For example, the name of the department (ITOM) is different from the name of the degree (MIS), and the business analytics and cybersecurity concentrations are not in clear view. Referring to the department and its programs in a consistent manner in promotional material and across websites and social media sites is important. Finding a particular program when it is hidden as a concentration or option can be challenging. This leaves the program open to internal competition from other departments within the university, and vulnerable to outside competition from universities who have a clearer brand for business analytics or cybersecurity.

Faculty support – Meeting faculty support needs in terms of teaching assistants or research assistants is a challenge for the ITOM department. Instructors carry a 4-4 load and have expressed a need for additional TA support. Tenure-track faculty have increased research expectations and have expressed a need for additional RA support. This is a challenge at FAU due to the number of students who are working while they are pursuing their degrees. This challenge will need to be solved if the service responsibilities of instructors are increased, and if tenure-track faculty are to be successful in obtaining more research grants or increasing the quality of their publications.

Turf wars – A challenge that emerged in our conversations with faculty and administrators was the turf war between ITOM and other colleges and departments across the university related to artificial intelligence. AI is an important emerging field for IT and business, and regardless of the

more technical coverage of the topic in engineering or science, it is imperative that a course or courses related to 'AI Applications in Business' or 'AI and Emerging Technologies' or 'Managing AI' be included in ITOM curriculum. Especially for the new Master's in Business Analytics, courses in AI will be expected, and if absent, will signal that the program is not as current or impactful as it should be. There is no conflict in AI coverage in Business versus Engineering; one is AI applications driven and the other creates or expands the technology of AI. No students will switch from one major to another; no grant will go to one college over another. Moreover, a collaboration between Business and Engineering will create broader opportunities for AI research. Business will be able to add a different perspective on the ethics of AI, AI transparency, AI fairness, data equity, fair data use, workforce development, and the business use of AI. Wider coverage of AI across the university will increase the university's reputation in this area. The challenge, then, is overcoming siloed thinking, allowing AI courses that relate to discipline-specific areas to be offered, and articulating the benefits of collaboration in this important field.

Restarting the PhD program – While we were not asked to review the PhD curriculum, we were asked to consider what it would take to restart the PhD program in MIS. This will be a challenge for the department. The tenure-track faculty are fully supportive, and in fact excited, about the prospect of PhD students to help with research and to elevate the level of research in the department. The challenge lies in starting with a small cohort and ramping it up carefully so as not to overwhelm financial or faculty resources. If done carefully (e.g., having first and second year cohorts take PhD seminars together) this is a viable option. Having a PhD program would be helpful in both the research culture of the department and in faculty recruitment efforts.

RECOMMENDATIONS FOR MOVING FORWARD

The review committee has been very impressed with the quality of ITOM's leadership, curriculum, student engagement, and faculty and staff. Nevertheless, we do have some recommendations for the department moving forward. While implementing some of the recommendations that follow are under the Department's control, implementing others would require College-level or University-level action.

Further, the department is engaged in numerous new initiatives. While the vision, energy and drive demonstrated by the department is admirable, we advise that leadership first leverage the strengths of the department in assessing new opportunities. We caution about spreading faculty and other resources too thin.

Curriculum

In terms of curriculum, we make recommendations in three areas: new offerings, undergraduate honors and research, and teaching environment and support. Some of these are no/low-cost near

term recommendations while others focus in a longer term, strategic time frame. We do not explicitly refer to the PhD program, since this initiative is already under way and we have already discussed it above.

New Offerings

AI in the curriculum - We encourage the department to explicitly include AI (artificial intelligence) in the content and title of new course offerings or existing courses, and in concentrations or degrees. The fact that graduates of your programs are exposed to and are competent in AI techniques and management is important for employers, future students and other universities to see. The label needs to be up front and clear. Faculty need to be kept up to date on innovations in AI and other emerging technologies (such as blockchain and quantum computing) so that your students can enter the job market or vie for new positions and promotions with these skills.

MS in Cybersecurity - While most job postings may only require a bachelor's degree in cybersecurity, the reality is that most firms do not readily hire candidates with only a BS in this field. As soon as possible, the department should do a market analysis of master's degrees and job opportunities available in South Florida in cybersecurity. We think you will find a sizable unmet need. You already have numerous cybersecurity courses in the undergraduate curriculum and with the focus of those courses on forensics and assurance, you have identified the landscape on which you can compete. Graduate IT and analytics courses can serve the needs of the cybersecurity master's as well.

Contribute to a FinTech Master's Degree or concentration in collaboration with Finance - South Florida has a significant FinTech industry and an opportunity exists to combine the strengths of the MIS department (with its courses in Python/R, data analytics, data management, AI/machine learning, and cybersecurity) and the strengths of the Finance department (financial markets, banking, risk management, financial modeling). We recommend that a market analysis and review of resources be conducted to ascertain whether this type of program would be feasible and profitable for the college and departments involved.

Undergraduate Honors and Research

Honors in the Major - The department can participate in the university's honors program by cross listing (H) selective courses as honors courses. The additional work required by faculty to provide supplemental opportunities to the honors students would be minimal. The process may energize faculty and the results may enrich future iterations of the standard course.

Undergraduate Research - Providing more opportunities for undergraduate research is a win-win for students and faculty alike. Having an undergraduate research course where students as individuals or as a team help faculty with research projects provides faculty with needed support (mini-research assistants) and could serve as a pipeline to the PhD program. Showcasing undergraduate research will raise the profile of the department at the university and in the profession and community. The number of undergraduate research activities is also a KPI in the university's accountability report.

Teaching Environment and Support

TA support - The faculty, specifically the instructors, indicated that they could use additional teaching assistant support. The department has done an excellent job of using IT staff at the university to serve as ad hoc teaching assistants in lieu of graduate assistants (who typically have full time jobs and are not available). We suggest that another source of TAs can be employed with little additional cost. Many universities now use peer teaching assistants or UTAs - undergraduate students who have excelled in a course and who can be paid an hourly wage to assist in subsequent offerings of the course. These UTAs, seen as top academic performers, are often sought after by companies upon graduation. There is also an opportunity for companies or alumni to sponsor and/or name the peer teaching group. UTAs can assist in grading assignments (with a rubric), hold office hours or study sessions, and assist in class management (software use, online courses, project groups or breakout rooms).

[Resources: https://pamplin.vt.edu/engage.html; https://www.cs.uga.edu/CSUA; https://www.cmu.edu/teaching/resources/PublicationsArchives/UGTA_TAs-v2.pdf; https://www.cs.uga.edu/CSUA]

Business Analytics and Visualization Lab - As the reputation of business analytics in the MIS department grows, we suggest that the college establish a Business Analytics and Visualization Lab for teaching and research. The lab would have a large display in the front of the room with tiled capabilities for multiple screens (e.g., 10 or so displays simultaneously as you would see in a command center), and individual or group work stations arranged throughout the room. Such a lab would give students access to large datasets, provide advanced visualization capabilities and display Bloomberg Terminal content and live news feeds. The room could also be configured to serve as an operations center for simulated data breaches and other security or disaster scenarios. This type of lab would elevate technology and decision making skills among students and give them an edge in competing for jobs and advancing their careers. Both undergraduate and graduate programs would benefit. The college would have a showcase for its advanced work in analytics and visualization, and the lab would be a draw for multiple master's and certificate programs. This is probably the most expensive recommendation we have put forward, but the cost could be reduced by contributions of equipment, software and naming rights. There are numerous similar

labs at other universities that have been quite successful. The lab would also work well with the previously recommended FinTech initiative.

[Resources: https://www.luc.edu/quinlan/stories/archive/business-analytics-lab-equips-students-with-in-demand-skills.shtml; https://mitsloan.mit.edu/action-learning/a-lab#tour-welcome; https://www.clemson.edu/cbshs/centers-institutes/smlc/]

Faculty & Research

In terms of faculty and research, we make recommendations in two areas: faculty diversity and recognition, and faculty research.

Faculty Diversity and Recognition

Enhancing Gender Diversity: The department is quite diverse in terms of ethnic diversity. However, As we discussed under challenges, out of 14 tenure-track faculty, only two are female, though there is greater gender diversity at the instructor level. We would encourage future hiring efforts to enhance the gender diversity of the tenure-track faculty in the department, which is especially important in STEM fields like MIS. Recruiting diverse candidates rarely happens without a concerted effort to identify potential candidates well in advance of a stated need, or without building a long-term relationship with groups or organizations that support diverse graduate students. College and university support for these initiatives is also important.

Faculty Award Opportunities: Faculty awards is a KPI in the FAU Accountability Plan. We would encourage the department to actively and regularly nominate faculty (if this is not done already) to appropriate faculty awards from relevant professional associations (e.g., AIS, INFORMS, DSI). This can strengthen the brand, reputation, and visibility of the department and provide faculty with external recognition for their accomplishments.

Enabling Instructor Participation on College Committees: Our understanding is that instructors are not able to serve on a number of college committees though they participate and make valuable contributions to such initiatives at the department level. To the extent appropriate, expansion of membership to instructors on certain committees would gain from their insights and provide recognition for their contributions.

Faculty Research

Raising the Research Profile of the Department: The faculty in the department have been consistently successful in publishing in ABS 3 journals with some publications in ABS 4 and ABS 4* journals. The trajectory in both quality and quantity of such publications has been positive. The reduced teaching loads and summer support for research-active faculty have contributed to this

trajectory. Assuming that such reduced teaching loads and summer support continue, we would encourage the faculty to increase the density of publications in ABS 4 and ABS 4* journals to raise the visibility and research profile of the department. This will have additional spillover effects towards enhancing opportunities for faculty to hold editorial appointments in high quality journals.

Maintaining Current Teaching Loads and Providing Summer Research Support: The 2-2 teaching loads and productivity-based summer research support have been instrumental to re-invigorating research and enhancing the research trajectory of the department. Though not under the control of the department, their continuation is critical not only to research productivity but also for retention of research talent in the department.

Creating a Vibrant Research Culture: A vibrant research culture sustains the research energy in the department, is generative of new ideas, encourages collaborations, and enhances research productivity. Re-initiating the PhD program will be helpful in this regard. In addition, the department already has a research colloquium for external speakers. We would recommend instituting a regular, weekly research colloquium that is a blend of external speakers, internal research presentations, and internal roundtables of research idea discussions among department faculty. Faculty from other departments across the college and across campus could also be invited to participate in the roundtables as appropriate to encourage cross-fertilization of ideas and interdisciplinary collaborations.

RA Support: The addition of research assistants, if possible, is another area which can benefit research-active faculty. The re-initiation of the PhD program can provide some research assistants. Undergraduate and master students can be another source, with the added benefit that this can serve as a pipeline for identifying potential PhD students for the PhD program. Having undergraduate RAs can also strengthen undergraduate research initiatives which is an FAU objective.

Untapped Potential

We have identified a number of opportunities that the department can explore to generate funds and to promote a culture of giving back that will benefit the department, college, and university long-term. The department will have to explore the viability of these given the local context.

Leveraging the Advisory Board for Fund-Raising: The department already has an engaged advisory board. A potential opportunity involves leveraging the advisory board to generate funds for the department. While this may take different forms and ITOM has to explore what may work for the department and how to stage different initiatives, we provide some successful examples at other institutions as initial possibilities.

- MIS departments at a number of universities charge fees for membership to the advisory board. For example, the MIS department at the University of Georgia has a three-tier membership fee (one for individuals and two for corporations) with additional benefits for the highest-tier (see https://www.terry.uga.edu/alumni/mis-advisory-board.php). These additional benefits include, for example, a Top-10 event where corporations meet with the top 10% of the MIS students in a reception and dinner format to identify and recruit top talent.
- Advisory board members can also sponsor named scholarships for students or sponsor outstanding senior/outstanding junior scholarships.
- What is commonly done is having a faculty member with appropriate expertise to be responsible for the advisory board, its meetings, development, and fund-raising. This may be something for ITOM to consider doing, as cultivating relationships with companies and organizing the various initiatives is time consuming and requires more focused attention to succeed.

Creating a culture of giving back: The ITOM graduates are very pleased with the program and with the faculty and view the department as very student-centric in its approach. Therefore, another area with long-term benefits for the department includes cultivating a culture of giving among the students and alumni. This can take many forms and the department is in the best position to know what may work best for their context. Some examples of what has worked in other universities include:

- a "Giving Back Day" where students and alumni can make contributions of any amount where what is stressed is participation not the amount
- I-Pay-Ten-Per-Year (IPTA) initiatives (e.g., Clemson)
- 50-for-50 (MIS department at UGA celebrating its 50th anniversary)

External Funding for Research – Grants Support: While external funding for research is not common in business schools, the ITOM department has had some success in this area. However, this is not traditionally a business school strength and many faculty do not have experience in applying for grants. To encourage and facilitate additional grants by ITOM and other business faculty, the college may consider hiring, on a part-time basis, a grants person focused on identifying opportunities for business school faculty and facilitating the development and submission of the proposal. This person can also help with applying for seed grants at the university level.

Strategic Plan - Pillars and Platforms
The department self-study report clearly indicated the alignment of faculty teaching and research with the pillars and platforms of the university. However, in our conversations with the faculty, even though they were aware of university pillars and platforms, they did not seem particularly

engaged about their role in this representation of the strategic plan. Healthy Aging and Sensors are obvious pillars to which ITOM could connect. Neuroscience and Environmental Science also have potential decision making and analytics connections to faculty research. All of the platforms can be connected in some way to ITOM involvement, most especially big data analytics. We suggest that a section be added on faculty annual reports where individual faculty can point out how their teaching, research or service activities contribute to individual pillars or platforms. Though this may not be an expectation for a satisfactory annual review, it will sensitize faculty to opportunities to make such connections and contributions.

CONCLUSION

The ITOM department is exceedingly well-run with a talented forward-thinking department head and committed, energetic faculty. The department has made substantive and impressive changes since its last program review and has significantly increased its reach in the South Florida business community and its impact in the IS field. The department is in a position of strength and on an upward trajectory which we predict will continue and will bring the department national recognition. For this review, we recommend that the department continue its practice of looking for ways to innovate and expand its course offerings, especially in its graduate programs, based on the department's strengths, capacity, and demand. We also recommend that the department continue to build and support a culture of research that will further strengthen the department's reputation in the academic community.

Thank you for the opportunity to be a part of the review of such an exemplary department.