TECHNOLOGY & INNOVATION MANAGEMENT DIVISION

FIVE-YEAR REVIEW, 2013-2017

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TIM Five-Year Review Committee:
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EXECUTIVE SUMMARY

The Technology & Innovation Management (TIM) Division undertook its most recent five-year review in November and December 2017. This document discusses the review process and presents the findings of the review. The document is divided into three sections. Section 1 analyzes and reflects upon the survey of the membership conducted in November 2017. Section 2 presents suggestions for improvement, based on the health and governance checklist items, standard metrics, and insights gleaned from the member survey. Lastly, Section 3 outlines goals and actions identified from the analysis in Sections 1 and 2. We briefly summarize the goals and actions identified as a result of this review process below:

1. Increase our efforts to welcome and orientate new members by organizing a new social event (Sunday breakfast and orientation) targeted at new members.

2. Initiate a Research Committee to be led by PDW chair jointly with two Representatives-at-Large to develop programs that offer mentoring and online sessions, particularly for junior scholars.

3. Increase engagement on TIM division website by posting changing profiles of TIM members, "TIMtroductions".

4. Expand geographic reach of the division by experimenting with regional paper development workshops.

5. Each executive committee member to commit to generating three sponsorship leads that the Chair-Elect will coordinate and pursue for sponsor deals.

6. Finally, to enhance conference engagement and improve session experience, we plan to explore whether it is possible to generate personalized session recommendations.

Section 1: TIM Division Survey Findings

Introduction

In November 2017, TIM division members were solicited for feedback on their satisfaction with the Division via an online survey. The objective of the survey was to better understand the needs of the membership, identify areas where the Division is meeting and exceeding those needs, understand areas of concern and where improvements can be made, and seek input of members on the future of the Division. Survey questions were grouped into five main categories:

- Profile of members
- Annual meeting
- Programs/services and leadership
- Overall satisfaction, and
- Open-ended questions

Of the 2858 members who received the survey, 660 responded, resulting in a response rate of 23.1%. Not everyone responded to each question, resulting in varying response totals by question. This section presents an analysis and reflection on the results of this survey.

Profile of members

TIM members are relatively young and geographically dispersed: 43 percent of the respondents are under the age of 40 and almost half have been a member of the division for less than four years (48%). 44 percent of the respondents reside in North America, 38 percent in Europe, and 14 percent in Asia, Australia, and Oceania. Central and South America (2% of total responses) and Africa and Middle East (1.1%) were the least represented regions in the survey.

A majority of the respondents identify the TIM Division as their primary division of

interest (73%), although 35% share this identification with another division. Strategic Management (STR), Entrepreneurship (ENT), Organization and Management Theory (OMT), and Organizational Communication and Information Systems (OCIS) and are the divisions most often mentioned as respondents list their primary divisions in addition to TIM.

Members consider gaining and sharing information relevant to research as the main motivation for them belonging to the TIM division (1.54 average rating on a five point scale with 1 being most important and 5 being least important), compared to the next highest motivation, developing and maintaining social connections (average rating of 2.83). Respondents ranked gaining and sharing information relevant to teaching, training and management practice, and learning about a new domain as less important motivations for them belonging to the TIM Division.

Based on these responses, we can conclude that TIM is a young and international division. This makes it important to increase our effort to welcome and accommodate young scholars and new members from many different countries and academic environments. At the same time, there are good opportunities to grow the division in the regions of Asia, Africa, and South America, especially given the economic growth in the Asian region and increasing interest in management in Africa and South America.

Annual Meeting

The next four questions of the member survey (12-15) focused on perceptions of Division's program and presence at the annual meeting of the Academy of Management (AOM). 42% of the respondents attend the meeting irrespective of whether they are featured in the program. Another 31% attended the meetings when they are on the program. The major reasons for not attending the meeting are lack of funding (55%) and lack of time (48%).

Members were asked about their involvement in activities organized by the division during the annual meeting and their satisfaction with these activities .[1] Most respondents had served as reviewers at least once during the past five years (72%), with 27% reviewing for the division every year. 36% had participated as a presenter in a professional development workshop (PDW) while 70% had attended a PDW session at least once. 67% of the respondents had presented at a scholarly session, and 36% had served as a chair or discussant. 83% of the respondents had attended a regular conference session while 72% had participated in other activities such as social events and business meetings. Only 22% of the respondents had volunteered in some capacity. That a majority of respondents had not yet volunteered to assist the Division in support roles suggests a signficant opportunity to utilize such activities to strengthen the relationship between members and the Division.

Members were asked about their level of satisfaction for most of the activities of the Division's program—whether they were "not satisfied," "somewhat satisfied," "satisfied," "very satisfied" or "extremely satisfied." More than half of the respondents reported that they were either very or extremely satisfied with the PDWs (56% of respondents), symposia (55% of respondents), social and networking opportunities (53% of respondents), and overall access to participation on the program (52% of respondents). Slightly lower levels of satisfaction were expressed for the plenaries (46% very or highly satisfied), discussion paper sessions (44%) and traditional paper sessions (39%).

Program/Services and Leadership

Questions 16–19 of the survey asked the respondents about their satisfaction with the programs

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[1] The questions in the survey regarding members' involvement and satisfaction also included a Not Applicable (N/A) answer. The percentages reported here exclude the NA responses so as to provide a more accurate assessment of members' involvement and satisfaction.

and services of the Division and the Division's leadership. In general, members expressed a high level of satisfaction with most of the programs and the services of the Division and the Division's leadership. More than 80% of the respondents reported that they were satisfied, very satisfied, or extremely satisfied with the Division elections being fair and open (90% of respondents), responsiveness of TIM division officers to member concerns (87%), activities that address TIM division's domain (83%), selection process for awards and recognition (83%), quality of newsletter (83%), and level of communication received from the TIM division (82%).

By the same measure, other activities received high levels of satisfaction were value of listservs (79%), fair opportunity for interested members to become leaders in the TIM division (78%), efforts to foster collaborations with other divisions/interest groups (78%), sense of community within the TIM division (77%), welcoming of members from various demographic groups (77%), efforts to reach out to international members (76%), opportunities to influence the TIM division (76%), and usefulness of the TIM website (76%).

Respondents were somewhat less satisfied with respect to encouragement from division leaders to form communities (61% were satisfied, very satisfied or extremely satisfied), opportunities to network outside of the annual meeting (57%), and opportunities to receive mentoring (54%). In our goals and actions, we have decided to address opportunities for mentoring and networking both within and beyond the annual meeting.

Question 17 was newly designed to assess awareness and participation in some new services and program features since the previous five-year review. Members appear to be quite well aware of the research development workshop for PhD students, dissertation finalist presentation session, social media channels, and TIM networking. Members were the least aware of TIM Hangouts, online teaching resources, and division sponsors that enable many of the new

services. We will address these gaps in our future communications.

Comparison of Levels of Satisfaction with Responses from 2012 and 2007 Member Surveys

Here we compare the level of members' engagement and satisfaction regarding the various activities and initiatives pursued by the TIM division with levels from the previous members survey conducted in 2012 and 2007 respectively. In terms of survey participation, the 2017 survey drew a higher level of responses in terms of both the number of respondents and as a percentage of membership (Table 1).

Table 1: Overall Number of Respondents for TIM Member Surveys, 2017, 2012 and 2007

Year of Survey	Number of Respondents	Percent of Membership
2017	660	23.1%
2012	553	21.5%
2007	423	17.7%

36% of the members responding in 2017 reported that they were "very" or "extremely" satisfied overall with their Division membership compared to 45% and 42% in 2012 and 2007 respectively. An additional 44% reported as being satisfied in both 2017 and 2012. While the 2017 survey saw a slightly lower level of overall satisfaction, satisfaction levels among the members for the vast majority of division's activities and initiatives have actually increased as tabulated in Table 2 below. Members have reported a higher level of satisfaction with respect to the annual meeting program, activities with respect to communication and building a community, and the leadership and the governance of the division. One possible interpretation of this observation is that while TIM members are in general very satisfied — and increasingly so —

with the activities and communications provided by the TIM Division, the large group of newer members may not yet have realized all the benefits of being part of the TIM division. Hence, the division may need to do more outreach towards the newer members in order to increase the level of overall satisfaction.

Table 2: Levels of Satisfaction Reported in Member Surveys in 2017, 2012 and 2007

	Percent Responding "Very" or "Extremely" Satisfied		
	2017 Survey	2012 Survey	2007 Survey
Annual Meeting Program			
PDWs	56%	44%	44%
Traditional Paper Sessions	39%	38%	39%
Symposia	55%	41%	39%
Social & Networking Opportunities	53%	42%	47%
Overall Access to Participation	52%	44%	46%
Community and Communication			
Sense of Community	32%	20%	23%
Reach-Out to International Members	40%	26%	34%
Collaborate With Other Divisions	40%	26%	30%
Network. Opportunities Outside Annual Mtg.	25%	16%	17%
Level of Communication	40%	32%	36%
Quality of Newsletter	42%	31%	38%
Usefulness of Website	35%	21%	27%
Value of Listserv	42%	20%	25%
Leadership and Governance			
Responsiveness of Officers	45%	29%	33%
Opportunity to Become Leaders	36%	22%	28%
Influence the Division	33%	18%	20%
Fair and Open Elections	53%	42%	48%
Selection Process for Awards & Recognition	42%	30%	36%

Future Direction of the Division

The final section of the survey solicited members' opinions on potential improvements

and future direction of the TIM Division. Four open-ended questions were posed. Question 20 asked what members liked best about the division. Out of the 171 responses, a quarter of answers noted the collegiality of our division, while another quarter highlighted the interdisciplinary-yet-coherent research focus on innovation and technology. This diversity of thought is also reflected in the quantitative data from Question 10, in which TIM members indicated the other divisions with which they are primarily affiliated: 26% are TIM only, while 21% also are members of BPS/STR, 11% ENT, 6% OMT, and 5% OCIS.

Question 21 (146 responses), Question 22 (155 responses), and Question 23 (111 responses) each asked about areas for improvement: the most important issue, issues to address in the next five years, and issues to address in the near term (respectively). Answers to these questions were wide ranging but a dominant concern was for access to social networks and research conversations. Members seem aware of the new platforms (Facebook, Twitter, AoM listserv, etc.), but would like more face-to-face or virtual opportunities for interaction and communication. Of the important and near-term issues, 10% asked for more outreach and inclusion of international members (although several also noted this was an AoM-wide problem, reflected in the annual meeting always being held in North America). An additional 24% of respondents pointed to a general need for more frequent and interactive communication from the division, such as boosting communication in the Fall when people return to work, which can raise awareness for recruiting new members and informing existing members who cannot attend the August meeting (due to cost or, increasingly, travel visa issues). Other ideas suggested (a) making greater use of social media (LinkedIn, Facebook) to establish a network of TIM scholars and foster collaborations, (b) posting videos of keynote lectures from the annual meeting or orientation videos from the executive committee (e.g., how to get involved, what the benefits of

TIM are), and (c) making greater use of the online newsletter to highlight recent research, perspectives on public policy debates relevant to TIM scholars, and interviews with academic and industry members (especially members other than the executive committee).

Question 24 (88 responses) was for open-ended suggestions, but responses mostly echoed the issues highlighted in Questions 21–23. The only other dominant issue not yet mentioned is a general frustration with the quality of annual meeting-related reviews, session discussion, and session attendance. This is also an AOM-wide problem, and while several members noted that TIM papers tend to be of higher-than-average quality, we should continue efforts to improve the scholarly content and interactions. The PDWs and consortia are well received, but members suggested dropping some of the paper sessions in favor of posters or other more interactive formats. TIM members have a strong an interest in more small-scale or local meetings and networking opportunities, a need that will only increase along with the continued growth of the division.

As in previous years, members made suggestions that could strengthen the research community by facilitating more collaboration and interaction among members within the Division and outside the Division, including other divisions and groups outside the Academy. Some of these ideas require considerable resources and coordination, such as conferences sponsored by the Division outside of the annual meeting and especially in non-US locations; special issues focused on technology and innovation; and webinars on the state-of-the-art IT topics (trends and methods) by academics and practioners. However, other suggestions could be lower cost and feasible in a shorter timeframe, such as a greater attention to IT-driven topics (big data, AI, machine learning, networks, platforms, etc.) by collaborating more with the OCIS division.

Conclusion

The member survey associated with this review provided valuable insights into member satisfaction with current activities. The response rate of 23.1% compared favorably to the previous response rates. Overall, members were satisfied with the Division's services and activities. While satisfaction levels and trends were largely positive, member feedback and informal comparison of member services with other Divisions suggests opportunities for new and enhanced services. In particular, the Division can apply the insight gained from these data to improve transparency about how the division works (e.g. the election process), the visibility of the new initiatives activated already (e.g. the new website, new types of interactive sessions) and those in the pipeline (e.g. new sponsorhips, new social events to integrate new members).

Section 2: TIM Division Health and Governance Data

Membership

According to figures provided by the Academy of Management, the TIM division membership in the five year period grew by 16.35% from 2,704 in 2013 to 3,146 in 2017. During this period, the cumulative average growth rate in membership was 3.86%. The Division's five-year growth in membership significantly exceeded that of AOM which had the overall growth of 4.37% and the cumulative average growth rate of 1.08% respectively. Table 3 compares the cumulative average growth rate in membership across the different categories of members for the TIM division and that for the AOM. The division has had a significantly higher growth rate across almost all categories of members. The growth rate in new members is similar for AOM and the TIM division, suggesting that most of the higher growth in the TIM division membership stems from lower attrition among existing members. This is another indicator of high level of satisfaction among TIM members.

Table 3: Cumulative Average Growth Rate in Membership During 2013-2017

	TIM	AOM
Total	3.86%	1.08%
US	1.90%	-0.18%
International	5.38%	2.44%
Academic	4.48%	1.55%
Student	3.96%	1.03%
New Members	4.87%	5.34%

The robust growth in membership is an important signal towards the importance of the TIM scholarly domain within AOM and the satisfaction that members are deriving from being part of the TIM division. The membership trends also suggest the need to orient some of the division's activities more towards international members and students, which represent a large proportion of the membership base.

Annual Meeting

In 2017, the Division received 581 submissions for the annual meeting in Atlanta of which 521 were papers, 40 were symposia, and 20 were Professional Development Workshop (PDW) proposals. This count constituted approximately 8% of all submissions to the Academy. While 25% of paper submissions came from authors based in North America, the vast majority came from authors residing outside North America. 48% of submissions came from authors based in Europe, and 22% of submissions came from authors based in Asia. The count of paper submissions represents a slight growth of 1.7% over 2016 while symposia submissions grew substantially by 48% over the previous year. The final TIM Division program at the annual meeting in 2017 consisted of 316 papers, 34 symposia, and 15 Professional Development Workshops with TIM as the primary sponsor and 23 workshops with TIM as the co-sponsor. The acceptance rate of TIM Division papers (60.6%) and symposia (85.0%) matched the Academy averages.

Eight hundred forty-one members graciously volonteered as reviewers for the TIM in Atlanta in 2017. The number of reviewers is consistently above the critical number needed by the Division. Over 90% of all submissions receive at least three review reports.

Governance and Finance

Participation in the survey associated with this five-year review was 23.1%, up from the participation rate of 21.5% for the 2012 survey. Participation by TIM members in the Division elections is on par with the other Academy divisions—in 2017 21.9% of TIM members cast a ballot compared to 22.9% of Academy members overall. Similarly, even though TIM is more highly international than the rest of the Academy of Management, TIM members attend annual conferences about at the same rate (47.4%) as the Academy overall (46.9%). Overall, robust participation by members in the TIM election suggests strong interest in and engagement with the Division.

The financial state of the TIM Division is very healthy . Both available funds and expenses have grown rapidly since the last five-year review. While the division allocation from the AoM has only increased from $29,980 (2012) to $31,003 (2016), in step with Division membership growth, the new sponsorship program has expanded additional revenue from $2000 (2012) to $32,000 (2017). During this time period, the division has formalized and solidified its sponsorship strategy with an explicit program of sponsorship levels (gold, silver and bronze), events, and visibility offerings.

On the expenditure side, the largest single item is annual meeting food and beverage which has more than doubled during the five-year period. The division added new social events (e.g., TIM networking) and expanded existing ones due to increased membership and meeting attendance (e.g., Distinguished Speaker Luncheon, TIM Social). Furthermore, constant increases in food and beverage prices account for major expense growth but have been controlled to ensure the Division has maintained modest carry-over funds. Other significant categories of expenditure include awards and audivisual services, about $3000 each. At the time of the review, the division

had no plans of expanding award offerings, but there is interest in making more audiovisual material from the meeting available. These opportunities will be further developed when TIM has an opportunity to adopt the new communication platform AOM Connect.

In summary, although division expenditures have grown, income has grown more rapidly, such that the total available operating funds have increased from $35,023 (2012) to $80,397 (2016). The division thus has a healthy buffer of funds to ensure resources are available when meeting venue expenses are higher than expected as well as to support innovation in our services to our members.

Section 3: Goals and Future Actions for the TIM Division

Based on our analysis, we identify the following goals for the TIM Division in the next five years:

- <u>Foster the TIM Community</u>, in particular continue our efforts to address the needs of our increasingly international audience of <u>young scholars</u> and student groups.

- Promote <u>engagement</u> in Division activities to the membership and the ease with which members can get involved.

- Improve <u>communication</u> within TIM and among closely related divisions.

- Improve the <u>quality of reviews</u> and of the program overall and work towards a more developmental and constructive review process.

- <u>Streamline and stabilize the external sponsorship process.</u>

In order to achieve the above goals, we have identified the following actions and responsibilities.

<u>Foster the TIM Community</u>:

In order to address the needs of the young scholars who have recently joined the division, we intend to organize a series of virtual and/or physical paper development workshops between annual meetings. We run a pilot of such an activity already, in June 2017 at ETH Zurich. Two members of the leadership team are now working on the 2018 event. Every year, two people within the team will be charged with the organization of an event during the following year.

We will strengthen joint activities such as symposia and conference with other divisions, especially BPS, ENT, OMT, and OCIS, though we remain open to all divisions of course. In

2017 we piloted this idea organizing the first joint MOC-TIM workshop in Zurich, which was highly successful (about twice the number of participants of previous MOC events).

The consortia we organize in the pre-conference program will be tailored to target difference audiences. In particular, the Doctoral Consortia will be organized around three core events, which target the late stage students: "Job Market bootcamp": "Transition to faculty"; "2023 and me". We shall continue to develop the Junior Faculty Consortium in order to address the needs of our junior faculty. Similarly, we shall redesign the 'Meet the Editors' event to make it more interactive and relevant.

Engagement

To enhance continuous intellectual engagement with the division, we plan to create a Research Committee under the leadership of the PDW Chair (Program Chair-Elect) and supported by two representatives-at-large. As our most pressing goal is to address the needs of junior scholars based all over the world, the Research Committee will initially focus on experimentation to activate online mentoring networks and to organize virtual workshops or webinars between annual meetings. Later on, the Committee may decide to focus on other priorities.

To facilitate onboarding of new members, we will create a new Breakfast orientation event dedicated to new members. This event will take place on Sunday and will offer new members the opportunity to meet all TIM officers. It will complement the recently revived (thanks to an external sponsorship) TIM Breakfast, always scheduled on Monday morning to welcome all members at the beginning of the main conference program.

In 2017, we experimented with a new format, the TIM Hangouts, a series of informal

social events organized by different members of the leadership team. Some of these events worked pretty well, others less. We shall continue this experiment targeting new members.

Communication

We intend to strengthen our communication strategy and enhance the use of social media. In 2017, we have completely redesigned our website, which is now fully operational. Our presence on Twitter, Facebook and YouTube will be strengthened by creating new content during the year (for example related to the Paper Development Workshops we plan to organize) and the content generated during the annual meeting, which already attract considerable attention (e.g. the interviews with the Distinguished Speaker Award winner). Two members of the leadership team are responsible to feed the social media and update the website on a regular basis. We are also experimenting with email blasts of Twitter and website content and with the idea of generating a new web series of video interviews about the genesis of seminal papers to engage our community and make our activities more visible throughout the year.

Improve the Review Process

In 2017, we started collecting examplary review reports and, after checking anonymity of all involved parties and with the approval of the authors, circulated them to our reviewer pool at the beginning of the review process. We will continue this practice that received positive feedback.

Since 2015, we have built a reviewer performance database to assist the program chair in the allocation of reviewers to papers. We will continue to improve our systems to enhance reviewer matching to papers.

We also aim to increase visibility of Best Reviewer awards and make the process of selecting best reviewers more transparent. Starting in 2017, we have given higher visibility to our serial winners during the Business Meeting.

Finally, we have begun to encourage intellectual leaders and "rising stars" to serve as discussants and chairs. We have started using the TIM Conversation sessions, introduced in 2016, to achieve closer connection and interaction among the leaders and regular members in the field.

Finance and sponsorships.

While the financial situation appears solid, the division now substantially depends on external sponsorships to offer the activities and programs that have been created in the past few years. Therefore, we decided to give the Division Chair-Elect the responsibility to coordinate sponsorship efforts of the Division, so far left to individual and occasional initiative. We have already standardized the sponsorship offerings. All members of the leadership team will be engaged in this effort, under the coordination of the Division Chair-Elect.