Industry syndicates in functional foods: evaluating existing models for the development of future projects

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Abstract
The syndicate model developed by the National Centre of Excellence in Functional Foods enables a number of companies to work together in a pre-competitive space, leveraging their investment. Companies have access to a wide range of research knowledge and skills for a portion of what it would cost to complete the entire project as a single entity. By 2007, the Centre had run three separate syndicate projects each with different models. Both food and pharmaceutical companies have participated in the projects. This paper reports on an evaluation of the Functional Foods for Healthy Ageing and Functional Foods for Appetite Control projects conducted during 2007 with the aim of re-developing the syndicate model for future projects. The evaluations were conducted with an external interviewer and followed a structured interview approach via telephone. The companies participating in these syndicate projects were favourable to the model being used for future projects due to the ability to interact with other companies, value for their research dollar and the access to research and development resources. Regular communications and a company-driven approach were favoured though a dedicated staff member was identified as needed for these projects. A new model for the syndicate projects was developed utilising the feedback. The primary modifications were a change from group ideation to individualised company ideation as well as the management and planning for the projects. The Centre will incorporate these changes in two future syndicate projects: Functional Foods for Cognitive Health and Functional Foods for Gut Health.

Keywords
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ABSTRACT

The syndicate model developed by the National Centre of Excellence in Functional Foods enables a number of companies to work together in a pre-competitive space, leveraging their investment. Companies have access to a wide range of research knowledge and skills for a portion of what it would cost to complete the entire project as a single entity. By 2007, the Centre had run three separate syndicate projects each with different models. Both food and pharmaceutical companies have participated in the projects. This paper reports on an evaluation of the Functional Foods for Healthy Ageing and Functional Foods for Appetite Control projects conducted during 2007 with the aim of re-developing the syndicate model for future projects. The evaluations were conducted with an external interviewer and followed a structured interview approach via telephone. The companies participating in these syndicate projects were favourable to the model being used for future projects due to the ability to interact with other companies, value for their research dollar and the access to research and development resources. Regular communications and a company driven approach were favourable though a dedicated staff member was identified as needed for these projects. A new model for the syndicate projects was developed utilising the feedback. The primary modifications were a change from group ideation to individualised company ideation as well as the management and planning for the projects. The Centre will incorporate these changes in two future syndicate projects, Functional Foods for Cognitive Health and Functional Foods for Gut Health.
INTRODUCTION

The concept of syndicate or consortium work for the purpose of research is not new though generally encompasses persons working towards a common goal (1-5). In academia a program in Washington, for example, known as the consortium research fellows program brings together researchers from a number of universities and government organisations allowing the researchers to work in a federal research setting (6). This program provides the research fellows the opportunity to widen the scope of their research in order to achieve their research goals. In food and nutrition, the use of consortium research programs also appears to be accepted. A number of dietary guidelines and health management protocols have been developed in this manner with the evidence based guidelines for Type 2 Diabetes management being one example (7). In the food industry, however, the confidentiality and secrecy relating to new product development often means new product development occurs as part of an internal process between different departments within the one company rather than between different companies.

Recognising the distancing between food companies, the syndicate project model was developed in 2005. This model recognised the varied research needs and capabilities of companies within the food industry, in particular small to medium enterprises. The syndicate model enables a number of companies to work together in a pre-competitive space, leveraging their investment. Companies have access to a wide range of research knowledge and skills for a portion of what it would cost to complete the entire project as a single entity. Several different approaches have been used in the syndicate model. The
first two projects had a strong commercial emphasis. The first, *Functional Foods for Healthy Kids*, conducted in 2005 adopted an approach by which the National Centre of Excellence in Functional foods (NCEFF) provided the participating companies with all the information developed during the project and the project was completed in a very short timeframe. *Functional Foods for Healthy Ageing* (the second syndicate conducted during 2006/07) encouraged the companies to make the decisions during the development and implementation of the project to suit their specific needs. This resulted in increased flexibility for each of the participants. Both of these syndicates have incorporated a review of the market (both national and international), the scientific drivers, consumer insights, product ideation and a regulatory and technical review of the product concepts. The most recent syndicate to date, *Functional Foods for Appetite Control (Diabesity)*, conducted in 2007, was a research focused project with both qualitative and quantitative consumer research forming the majority of the work. Companies invited to participate in syndicate projects have a common area of interest and were added in a stepwise manner. Those that had agreed to participate were made aware of other companies being considered to ensure that there would be no competing interests and allow an open-innovation process. This ensured that the outcomes could be used by each of the participating companies to achieve their individual marketing goals.

Despite the completion of three different syndicate projects and prior to the work described in this study, no formal evaluation process had been undertaken between projects to assess the most effective model preferred by industry. Evaluation is the use of measurement or the description of an activity to assist with the decision making process.
(8) and is essential to successfully running a program or project (9). The type of evaluation selected will depend on the stage of progress of the activity being evaluated, though systematic and rigorous processes should be followed throughout (8) and feedback provided to the informants participating in the evaluation process to further guide the project development process (10).

The aim of this paper is to present the preliminary results of a formal evaluation process completed at the end of both the *Functional Foods for Healthy Ageing* (Healthy Ageing) and the Diabesity syndicate projects. These results will be used to refine the model for use in future projects conducted by the Centre.
METHODS:

An evaluation methodology was applied whereby company representatives were invited to give opinions of their experiences with the syndicate projects. Companies were informed of the evaluation in the previous syndicate project teleconference and invited by the interviewer by email correspondence one week prior to the evaluation. A copy of the questioning schedule was provided in this email. Companies were informed that the inclusion criteria for a staff member to participate in the evaluation was an involvement in a large proportion of the project work. Companies were informed that one to two key staff members were preferred. This figure was not adjusted by company size or level of involvement. All information obtained in the evaluation was de-identified for reporting purposes, the comments summarised and the outcomes fed back to industry.

Both the Healthy Ageing and Diabesity syndicate projects were managed by the same researcher and each had predetermined group teleconferences led by the researcher to discuss progress, results and project management issues with the companies. The final teleconference for each project was scheduled as an evaluation teleconference and led by an external interviewer using a semi-structured format.

Prior to the teleconference, the interviewer was provided with an overview of each of the projects to develop a questioning schedule (Fig. 1). This questioning schedule was created to capture the experiences of each of the participating companies, with a specific focus on the key components within the projects. If a company was unable to participate in the teleconference, the questioning schedule was provided electronically for
completion. During each teleconference, the interviewer transcribed near-verbatim responses using a desktop computer.

Figure 1: Questioning schedule used by the interviewer during the teleconferences

1. To what extent did you value your involvement in this project?
2a. To what extent did you value this project as a syndicate?
2b. Do you have any comments in relation to this model?
3. To what extent did this project provide you with a new or better understanding of functional foods as they relate to your organisation?
4. Has the project resulted in the development (either completed or in progress) of a functional food product or process for your organisation?
5. How would you rate the following attributes of [subcontractor] in relation to this project:
   - Knowledge/expertise of the area (i.e. market trends)
   - Suitability of information provided in workshops
   - Quality of information provided in Concept Output
6. How would you rate the following attributes of NCEFF in relation to this project:
   - Customer service
   - Professionalism
   - Organisation/ time management
   - Quality of information provided during workshops
   - Quality of information provided in reports/briefs
7. What did you value most/least about working with NCEFF?
8. Do you have any comments, suggestions for improvement in the way NCEFF managed this project?
9. Would you consider working with NCEFF in the future? Please comment
10. Would you consider being involved in another syndicate project? Please comment
11. Would you like to make any final comments?

Following the completion of the interviews, responses from the transcribed data were grouped thematically and compared with the project model used. Areas of the project model identified as useful were flagged for the development of future models and specific suggestions made by the companies were also flagged for future models. For the purpose of this paper, information from interviews were summarised and representative responses
were selected to show the actual wording of a common opinion. These were identified from the transcription using a text code (e.g., HAQ2Ln15) [is this necessary – I find it offputting, are the first two letters an initial? If so, potentially identifying. The first two initials relate to the project only. This format is required for publishing qualitative research] and reported in italics.
RESULTS:
Of the representatives from eight companies who were invited to participate in the syndicate project evaluations, representatives from five companies participated in the teleconference evaluation, two provided written responses to the questions while one company did not complete the evaluation due to time commitments. The representation included persons from varying areas of upper management (n=4), project specific managers (n=3) and nutritionists (n=2).

Project specific feedback
The feedback for the Healthy Ageing project revealed a need to change the project model. The original syndicate model from the Healthy Kids project (Fig. 2) was applied to this project, however, the Healthy Kids syndicate was a co-funded project with the National Food Industry Strategy and therefore the cost to each company was reduced. To overcome this cost barrier, the Healthy Ageing project was divided into parts A and B (Fig. 3) with the companies having the option to participate in part A only or both parts. The evaluation revealed companies felt that the need to split the project into parts A and B had an impact on the relationships that were formed throughout the project.

*The syndicate model was useful for interaction with other companies, although there wasn’t as much as there could have been. (HAQ2Ln15)*

Not all companies from part A progressed through to part B, primarily due to cost constraints but also due to the broadness of the final phase and the lack of company focus.
...got more value out of part A, suggest the methodology/protocol needs to be revised:

*Ideation should be run at company level concurrently to group ideation...[so that] the companies can put in 2-3 that are specifically tailored. (HAQ2Ln8)*

For these companies, an individually tailored approach was suggested as new product development was the primary strategic focus of the project. Other companies also felt that part A was generally more beneficial from a marketing perspective

*More value out of part A, what [we] were using it for was to get a number of different product sourcing groups (within [company]) to focus on what are considered to be the interesting marketing areas. (HAQ2Ln13)*

and agreed that individualised ideation in part B would have improved the attractiveness of the project model.

*Individual ideation sessions are more attractive. One of the reasons [we] didn’t go into part B... too broad when wanting to make individual decisions. (HAQ9Ln5)*

From a research management perspective, the Healthy Ageing model has also changed shape due to contractual challenges during part A (i.e. Agreeing on one contract with multiple companies). This saw the consumer work (desk research and insight research) divided into two phases and presented as two separate workshops during Part A of the project.
The feedback from Healthy Ageing was assessed and the model overlaid with that of the Healthy Kids project. From this process a decision was made to alter the ideation component of the model, keep the project as one part rather than divide it into two components and realign the consumer work with the Healthy Kids model. This presents a more logical flow of information to the companies within a single workshop rather than various meetings at which different company representatives may be present.

The Diabesity project revealed that the traditional syndicate model need not be applied for companies to work together in a pre-competitive space. This project was developed as a three phase research project encompassing both qualitative and quantitative consumer research (Fig. 3). Feedback from the companies was primarily focussed around the details of the project as opposed to the way in which it was organised. Of the three syndicate projects, recruitment of companies took the longest and proved to be the most difficult,
despite strong interest in the topic area. Although the name of the project (Diabetesy) indicated the target population for the research, each participating company had differing perceptions of who the target population would be.

[There was] confusion about what the population focus would be, but [we were] happy where it ended up, regarding the attitudes of diabetics compared with general population. (DBQ1Ln5)

[However] there was sufficient discussion around the population group, participants [companies] were given the opportunity to consider other population groups. (DBQ1Ln9)

This confusion may have resulted from the absence of a key subcontractor at each of the project meetings and the majority of teleconferences at which project decisions were finalised.

**Figure 3: Functional foods for healthy ageing syndicate model**

The timeline for the Diabesity project, though planned to be completed in six months, needed to be adjusted at numerous time points and were based on shifting company needs,
subcontractor availability, changing project methodologies, participant recruitment to the research and company recruitment to the project. This finding identifies the need to develop a separate model for research-based syndicate projects (compared with those involving a large amount of secondary research) with all companies involved as a component of the initial project meetings. All companies of research-based syndicate projects should be made aware of the need for flexibility when conducting research with large samples of consumers.

**Figure 4: Functional foods for Appetite Control (Diabesity) syndicate project model**

![Syndicate Project Model](image)

**Supporting the need for syndicate projects**

The importance of the syndicate project concept was strongly expressed during both evaluation sessions; three key reasons for this became apparent during the discussions. These related to the focus of the projects, the relationships formed and the cost-effectiveness of the approach.
As the two projects were focused around an area of health, the ability of the two projects to focus on the concept of Functional Food opportunities within a health context was stated as a major reason for joining the project.

*We were* interested in this topic and interested in Functional Food opportunities. *(HAQ2Ln1)*

This interest was found to be a valuable component throughout the projects with one company stating that they *saw this as an opportunity to focus on a specific area providing the succinct scientific background for focussing on opportunities within their specific area has been valuable.* *(HAQ2Ln2)*

Beyond the topic alone, the relationships built and opportunities which developed from these relationships either during the project or at a later date were highly valued by the companies. This was especially important to the smaller companies who have less time for networking events.

*Small to medium enterprises* SMEs have less time to allocate to these things however, we can see synergistic opportunities that can be developed. *(HAQ2Ln5)*

It was also noted by some companies that a greater amount of interaction and stronger focus on relationship-building would be preferred. Overall, however, the syndicate projects were seen by the companies involved as an attractive and cost effective (shared costs) means for pre-competitive research.

**The commercial benefits to the companies**
The evaluation process identified a link between outcomes for the companies in the syndicate projects and the benefits initially identified by the Centre for developing the syndicate projects. This was a positive finding for the evaluation as it suggests that the aims of the projects are aligning with a potential industry need for the projects. Processes such as the utilisation of various third party researchers was appreciated by the companies. This combined with the leveraged costs also exposed the smaller companies to a large amount of research that they would not normally access themselves.

*Appreciate the greater leverage of syndicate resource to better address the research areas and to access third party research skills.* (HAEmLn3)

The recruitment of non-competing companies to the projects was also welcomed although the process of companies agreeing to each others participation is believed to have assisted this process.

*Worked well, good to have companies that were broad and different, this was positive towards achieving better results and different insights, and an overall broader picture than would have occurred if all companies were similar.* (DBQ5Ln1)

The process of completing and participating in the activities of each of the syndicate projects assisted the companies in a number of ways. Many had a specific product focus for which the research would provide background information and the evaluation results showed that companies gained better understanding of how to position products (DBQ4Ln1). [Is this not contradictory to earlier when it was stated that the projects were too broad and limited ability of individual companies to develop specific products for their target market? The beginning of the project is intentionally broad. The projects
become more focussed as time progresses] This product positioning is particularly important in the growing marketplace and due to the pre-competitive nature of the project work companies had the opportunity to discuss ideas amongst themselves. The time frame of the projects also fitted within the tight schedules related to new food product development.

*The syndicate allowed this to happen within a short period of time, and helped [company] to see where the value areas are.* (HAQ2Ln15)

**Management of the project**

Due to the multiple layers of work involved in each syndicate project, the topic and tasks were not only evaluated but the processes undertaken by the Centre to manage the projects was also evaluated. One of the goals of the Centre throughout the projects was to ensure that companies remained updated with the project activities so as to allow active participation in decision-making processes during the evolution of the projects. This approach was well received by the participating companies.

*Good communication throughout and well managed.* (DBQ1Ln10)

*Good the way the research was run keeping participants informed and involved in decision making.* (HAQ6Ln2)

This active communication process meant that one dedicated researcher was required to manage the project and ensure the teams’ involvement as each stage. The researcher however was also required to manage other projects, a task which was noted by the companies. A suggestion was made for a dedicated project manager for each syndicate.
Management of the projects was largely driven by the timeframe for delivery. Feedback revealed the Centre to be committed to timely delivery and satisfaction of participants needs (HAEmLn7), despite the contractual agreements between the University and the companies taking longer than anticipated.

Flexibility has been observed in how the project elements have conducted to accommodate variations in resource availability, (delays with) contract negotiations, and scope of work to reflect participants (sometimes changing) needs. (HAEmLn8)

Without flexibility of both the companies, the contractors and the project timeframe, the varied needs of each of the companies would not have been able to be fulfilled. Furthermore there also needs to be a degree of flexibility in the early stages while defining the focal areas within the project topic e.g. osteoporosis for Healthy Ageing.

**DISCUSSION:**

**The new syndicate model**

Introduction of the syndicate projects concept to the food industry in Australia has been shown to be a valuable approach. The evaluation of two projects completed to date has identified the need to constantly refine the model in order to meet the expectations of the industry users. Specifically, the following key areas will require change in future models.
The need for a dedicated syndicate projects manager was identified and a specific position developed at the Centre to ensure all syndicate projects receive the attention they deserve. The short time frame of the projects was very well suited to the commercial food environment and needed to remain in future syndicate models while a greater emphasis on product development needed to be one of the key outcomes of projects. This has been planned for by accepting the suggestion of individualised ideations sessions at a company level with the option for the group of companies to agree to opt back to the group ideation session during the initial workshop of the project if preferred. As the project work was the primary focus of both syndicate projects, further work can be done to facilitate relationship building between the company representatives in future projects. Greater interaction between the companies will also be encouraged although this may be limited due to the number of representatives from the companies who attend the various workshops. It has been suggested that a more pro-active approach to the workshop activities such as the incorporation of practical exercises as a part of the presentation of the project results may support this interaction.

When the advantages and disadvantages of the individual components of the traditional syndicate model were addressed a number of segments of the model were flagged for removal and others needed to be combined with approaches from other projects. Generally each of the three syndicate projects to date had a focal point which was determined as essential for future projects. The Healthy Ageing project provided flexibility allowing the companies to brainstorm the science and marketing topics, the Healthy Kids project, though not evaluated, combined the consumer work as one segment
allowing the same sub-contractor to complete both the desk research and the consumer research and the Diabesity project utilised specific ‘expertise’ by involving an external research agency, to research the topic of interest. These combined approaches resulted in the development of a preliminary model for future syndicate projects to be trialled in upcoming projects (Fig. 5). This new model has also incorporated a second phase of consumer research during which the ideated product ideas may be tested. This approach is recommended to ensure that the qualitative requirements determined during earlier phases of consumer work are incorporated into the ideation concepts (11).

**Figure 5: Suggested future syndicate project models**

![Diagram](image)

\[\text{a From healthy kids syndicate model} \]

\[\text{b From healthy ageing syndicate model} \]

\[\text{c New component based on feedback} \]

**CONCLUSION:**

Although it was found that it is difficult to conduct primary consumer research using a syndicate model, it appears that a more individualised company based approach is
required for the planning of these types of projects. This individualised approach can then be combined to form the syndicate project concept. During this developmental stage each of the companies will need to provide their input to ensure the research achieves the individual aims. This will also assist with relationship building both between the Centre and the participant companies but also between each of the companies as well (12). This evaluation has identified, in the context of pre-competitive research, the importance of project evaluation both during and after research activity in order to allow the model to be continuously modified.

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