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AGRIBUSINESS: DISCIPLINES AND DIMENSIONS

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What Is the Agribusiness Sector?

The outstanding characteristic of the most successful managers of businesses is their mastery of information; thus the educational requirements of people working in the agribusiness sector of the economy can be considered usefully in the broad framework of helping to equip these people to 'master information'. More specifically, the main requirement of contemporary agribusiness education is for students and practitioners to learn to bringing rigorous ways of processing information from a range of disciplines to bear in solving business problems of a multi-disciplinary and multi-dimensional nature, in managing businesses in a risky environment where much is unknown and much is unknowable. In this paper, agribusiness activity, and the scope of agribusiness study, is defined in terms of the disciplines and dimensions involved, and implications for agribusiness education are canvassed.

Changes in the business environments in which Australian agribusiness have to operate, particularly deregulation of commodity and capital markets, has meant that generally such businesses are exposed to more competition and to the vagaries of markets in inputs and outputs than has been the case. Even though the move towards free trade and greater competition will continue to be slow, with a good deal of backsliding as well, more than ever the race will go to the 'fittest' businesses. Australian agribusinesses will need to be fit. Arguably, much of Australian agribusiness has always been fit because one way or another they managed right from the start to export most of the agricultural products Australian farmers and processors produced.

Several major themes underlie any discussion about the future educational requirements of agribusiness practitioners. These themes go beyond the obvious effects of competition on those who experience it. One theme is the critical role of information in successful business management and marketing in a dynamic world. Another theme concerns the nature of agriculture in Australia, and the particular usefulness of understanding technical, economic and human aspects of the operations of businesses related to agriculture in order to manage them successfully.

An initial question is 'What is the agribusiness sector in the sector?' The agribusiness sector can be visualized as a vertical 'slice' of an economy comprising many parts. The agribusiness 'slice' is where consumers and producers of goods and services related to agriculture operate (Figure 1).

Next, 'What is agribusiness activity?' Conventionally agribusiness activity is represented in a two dimensional manner, as a continuum from producer to consumer (Figure 2). This approach, in the economist Paul Samuelson's phrase, is not even wrong - it is boring, irrelevant, uninformative, misleading. A more useful approach is to suggest areas of economic activity and markets (Figure 3). More useful still is to represent agribusiness as a three dimensional sphere of business activity in which firms interact with each other in markets, not in some continuum from 'paddock to plate', but more like a moveable feast, with inputs flowing into production at various levels of the marketing chain from throughout the economy and intermediate and final outputs flowing out of various levels of marketing chains (Figure 4).

This approach makes clear the vast array of sources of inputs involved in agribusiness activity, and provides a feel for the dimensions, or scope, of the term agribusiness. It also shows how ill-informed was the debate of the 1980s about whether agribusiness started before or after the farm gate! That question arose directly from the two dimensional continuum view of the world, which implied that somehow farmers produce things without any help from the rest of the economy.

The proximity and strength of agricultural connections to business activities distinguishes 'agribusiness' activity from 'business' activity in general. The closer and stronger the ties an activity has with the 'agricultural action' the more confidently the activity is able to be described as being involved in agribusiness, and the further from the 'agricultural action' the more confidently the activity can be termed simply 'business'. More specifically, agribusiness management and marketing activities can be seen as being of a different nature to business management and marketing in general, because of the nature of agriculture. The nature of agriculture - the biology, the seasonality, the nature of the products, the nature of the markets, and particularly the risks involved- characterizes and distinguishes agribusiness activity and means that people in agribusiness have some distinct and distinguishable needs for knowledge and skills. Thus some of the information that people working in the agribusiness sector have to master is information related to the human technical, economic, financial, institutional and risk aspects of agricultural business activities.

Figure 1: Agribusiness Sector in the Economy

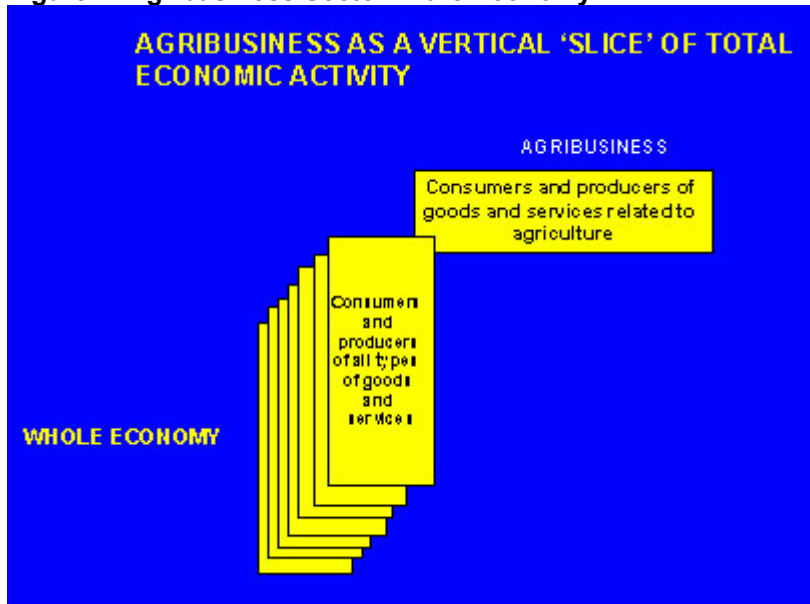


Figure 2: Agribusiness Continuum

Figure 3 Agribusiness Continuum with Markets

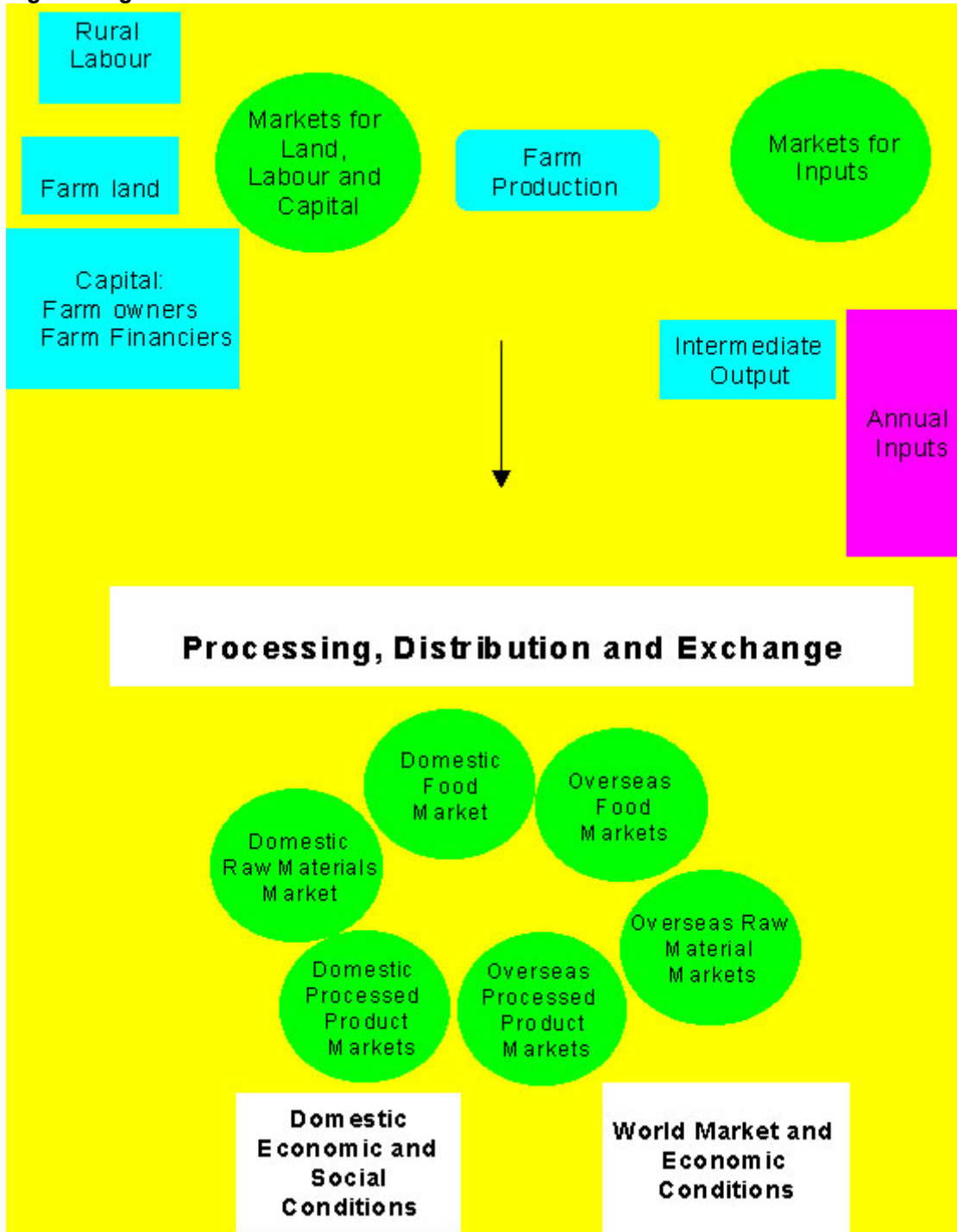
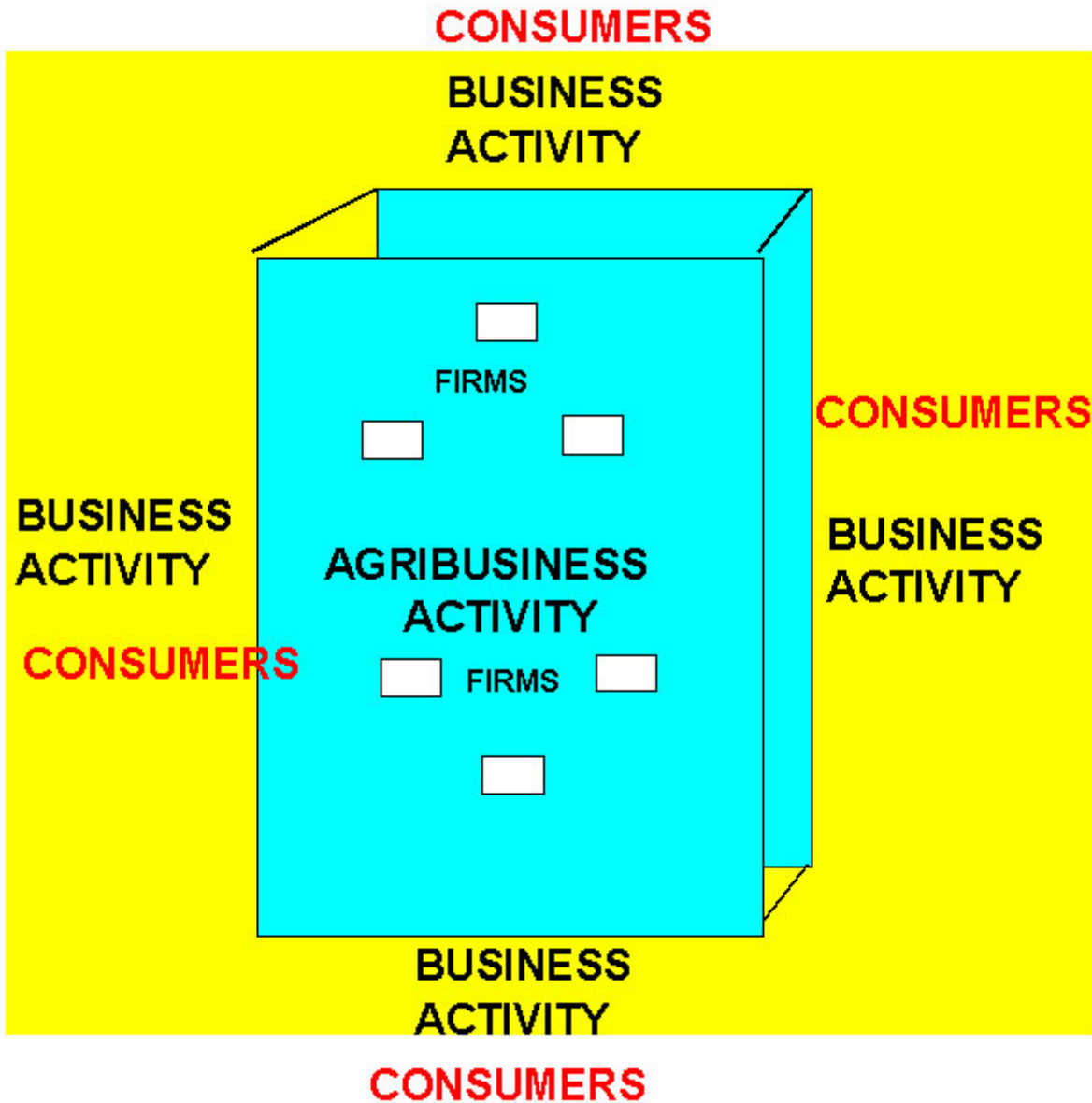


Figure 4 Agribusiness Share



Looking at agribusiness in terms of output, it should be noted that the boundaries of agribusiness and business in general blur and merge the more the product gets transformed from raw agricultural material to something else (form utility), and the boundaries of agribusiness and business become more clearly separable or definable the closer we move towards the farm and the less the product has been transformed. The more the product is transformed the more likely it is that activities in these areas are already covered by the traditional areas of study called broadly economics and business management and business.

The ways of thinking about agribusiness that have been canvassed so far in this paper are limited in a pedagogical sense. It is more fruitful pedagogically to think not in terms of what happens in agribusiness activities, but what content is involved in the processes. This involves thinking in terms of the knowledge (information) from the various disciplines that is involved in agribusiness activities and processes, and thus are relevant to the study of these activities and processes. Agribusiness is an interdisciplinary area of study. Disciplinary areas can be categorized as being academic disciplines and professional 'disciplines' (Figure 5). Relevant academic disciplines include such areas as the agricultural and food science disciplines, economics, and human behavioural disciplines. Professional 'disciplines' are a broader concept and include areas such as business management and marketing, public resource management and environmental management, i.e. interdisciplinary, multi-disciplinary pursuits. The key to analysing the management of a business, and to problem solving in the real world, is to bring to bear on the question at hand the appropriate mix, and balance, of disciplinary knowledge - and the appropriate balance depends on the question being asked.

What is meant by the phrase 'The appropriate balance of disciplinary emphases to solve the problem at hand'? This phrase means looking at a part of a whole in terms of its role in the whole to better solve the whole of the problem approximately than part of the problem extremely well. That is the value of being roughly right rather than precisely wrong. Such systems approaches can be taken too far in the sense that they become meaningless. One of the founders of systems approaches to thinking about issues and problems, Kenneth Boulding said 'All you say about practically everything is virtually nothing'. Used with care, the interdisciplinary approach, where human, technical, economic, financial, institutional and risk aspects are all considered in analyses in a balance appropriate to the problem has proved to be extremely valuable in an applied research and a practical problem solving sense.

As well as the disciplines involved in agribusiness, information has to be brought to bear on the relevant dimension to solve problems. By dimensions it is meant 'the angle': the aspect of the problem on which attention is focussed (see Figure 5). The nature of 'the angle' determines the appropriate knowledge to use in its solution. The aim is to match the most useful mix of disciplinary knowledge with the dimension in question. So what are dimensions of agribusiness. Here are some examples of dimensions:

- The parts/angles of business activity- human, technical, economic, financial, marketing, institutional, risk;
- The perspective - Farm firm, non-farm firm, collective firms/industry, public;
- The environmental features or context of business activity - dynamics, change, risk, information lacking, known and knowable, unknown and knowable, unknowable information.

Figure 5: Agribusiness Disciplines and Dimensions

The notion of dimension is useful analytically as it guides the analyst in the choices about the mix of disciplinary knowledge on which to draw. It is standard to make the point that agribusiness is an interdisciplinary activity and agribusiness analyses need a mix of disciplinary knowledge to solve problems - the basis of the whole-business approach - the refinement to that line of thinking is to add 'the balance of disciplinary emphases has to be appropriate to the dimension of agribusiness that is under scrutiny'. This approach ought to get practitioners away from the problems of wrongful analyses that occur when the perspective of the individual analyst ends up defining the problem. Learning to identify, interpret and analyse the problem correctly requires bringing to bear the appropriate mix of disciplinary knowledge, and doing this requires, first, the possession of disciplinary and interdisciplinary knowledge and second, practice because ultimately much comes down to making sound judgements. This discipline-dimension approach is an attempt to reduce the chance of misdiagnosis of business problems due to mismatches of disciplinary mix and dimension.

An example of mismatch of disciplines and dimensions is when, say, the question relates to firms in aggregate and the appropriate disciplinary knowledge is primarily from agricultural economics, yet the question is tackled inappropriately from the business management/business marketing perspective of individual firms. Or, another example: a common mismatch of discipline and dimension occurs where problems of a business operation along the production and marketing chain are diagnosed as a problem with 'the market' or with 'marketing', when what is required for sound diagnosis is to bring knowledge from technical and economic and human disciplines to dimensions of the operation of the business such as technical aspects of the production system, or the methods of management of personnel, or the risk involved, or the detail of the marketing activities.

The major belief underlying the approach of emphasizing disciplines and dimensions in agribusiness education and agribusiness problem-solving is that by explicitly identifying the dimension of the agribusiness question at hand it is more likely that we will be able to bring to bear the appropriate balance of disciplinary knowledge to the question. Also, the emphasis on bringing the disciplinary balance appropriate to the dimension, in a rigorous manner, helps highlight strengths and weaknesses of the individual disciplinary models and the information deriving from them. Indeed, rigour in the application of the knowledge, and in the processing of information, is the key element in applying a mix of disciplinary knowledge to problem solving.

Employers commonly put the view to educators that they do not mind much which field a student has specialized in, as long as they have gone into depth in one area. That is, they have explored a field to a depth that is only achievable by being able to apply rigorous ways of thinking. There may be much truth in the old adage of employers 'Give me someone trained to think and I'll soon teach them what to do'.

Conclusion

Agriculture makes 'business' into 'agribusiness'. Agricultural knowledge is a mixture of knowledge from discipline areas such as science, economics and humanities. Decision-making and problem-solving in agribusiness requires mastery of information from a range of disciplines, which is then applied to the appropriate dimension of the problem - with rigour. Rigour in thinking comes from studying a part of the world (a discipline) in depth. A major imperative in modern agribusiness education is learning to be able to acquire, process and apply mixes of disciplinary information in rigorous ways to the appropriate agribusiness dimension to help solve problems