

Short communication

Differences in the perception by farmers of organizations acting as sources of information on improved plant genetic resources

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Abstract

The perception by arable farmers in the UK of research organizations and companies acting as sources of information relating to plant genetic resource utilization is represented using brand strength plots. In development situations there exist considerable difficulties in achieving technology transfer. The method of brand analysis applied in this paper could be extended to characterize options in the selection of vectors for technology transfer in development programmes. A survey of potential vectors such as television, radio, extension services, universities, government agencies and commercial companies would reveal their comparative brand strength and hence utility for achieving development objectives.

Keywords: brand analysis; brand strength; farmers; international development; technology transfer; vector organization

Experimental and discussion

The uptake of new technology in the form of improved crop varieties takes place by a set of processes that are variously and collectively described as *innovation diffusion*, *up-scaling* or *technology transfer*. A recent study of the characteristics of *vector* organizations supplying new products or advice on new products to arable farmers in the UK has led to a new model to explain the uptake of innovation (Draper, 2001).

The model incorporates three components:

- Brand strength of the vector organization.
- Intrinsic product value.
- Social distance.

The concept of social distance in technology transfer is described by Woolgar *et al.* (1998).

Brand strength is described using the four components listed below, adapted for a technology transfer situation from Knox and Maklan (1998).

- Reputation.
- Perceived product/service performance.
- Perceived customer portfolio.
- Networks.

This approach allows organizations to be compared as 'carriers' of innovation to new users.

Survey

In the current study, farmers were selected at random from a database covering principal areas for arable production in England. A total of 150 arable farmers, each with >150 ha of arable land, were contacted and 76 completed a questionnaire. The questionnaire was designed

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to assess the corporate brand strength of 12 organizations/companies in terms of their ability to deliver innovation to the farm (Draper, 2001). Of the 12, four were research-based organizations providing advice and consultancy but not products. Three of these are illustrated graphically in this paper: JMS 4, JMS 5 and JMS 6. The remaining eight, were companies supplying products supported with technical advice. The brand strength of organizations/companies was assessed by comparisons of their ranking position for each of the four components listed above. The total area within a four component radar plot was taken as an overall measure of brand strength.

Presentation of brand strength data

The research-based organizations, as a group, gave a characteristically different brand profile compared with the companies supplying products. In general, their brand strength in the technology transfer context was greater. When companies showed strengths in particular components comparable to those displayed by the research-based organizations, this tended to be in the ‘customer portfolio’ and ‘recognition’ areas. Companies never matched the best research organizations for perceived trustworthiness, thus revealing interesting opportunities for co-branding (Lindemann, 1999). These trends are illustrated in Fig. 1. For simplicity of presentation only six of the 12 organizations and companies are shown.

Although the literature relevant to technology uptake is extremely extensive, two strands can be distinguished. The *innovation diffusion* literature, at least in its early manifestation, deals with past events, describing what has happened as an inevitable consequence of the nature of the existing structures and the characteristics of the recipients. More recently, *technology transfer* has been regarded as a process that might be managed through planning. The model proposed in an earlier paper (Draper, 2001) develops the concept of a managed process and introduces for the first time the possibility of selecting appropriate vectors through objective analysis based on brand theory. The current study lends weight to this approach, brand differences having been demonstrated both within and between vector categories. A brand-centric interpretation of the *up-scaling* literature and the current move in development situations towards so-called *participatory plant breeding*, would equate the vector collectively as the farmers actually involved in such schemes. As the new varieties move into the mainstream it might be expected that the ‘brand’ characteristics of such first-wave users would have considerable influence on the momentum of the up-scaling programme.

In development situations there exist considerable difficulties in achieving technology transfer (see, e.g., Anon, 2000). The method of brand analysis applied in this paper could be used to characterize options in the selection of first-wave participants in development programmes.

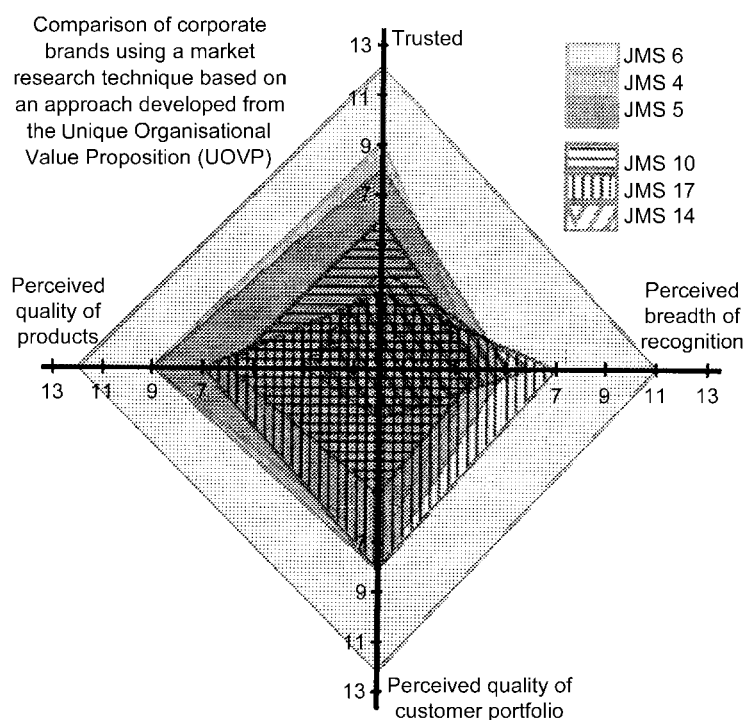


Fig. 1. Brand strength of technology transfer organizations.

In Western agriculture the method is already being used to improve the marketing of innovative products and concepts.

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