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A Value Co-Creation Framework to Manage Service Quality in the UK Animal Health and Veterinary Sector

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Abstract

This paper outlines the development of a value co-creation framework for the management of service quality in the animal healthcare sector. A mixed-methods approach that combined depth interviews and a survey (n=663) was utilised. The research found that the key dimensions of value co-creation in the animal healthcare sector are Interaction, Access, and Location and that there are statistically significant relationships between service quality and a number of underlying value co-creation variables. The paper makes an original contribution to knowledge regarding value co-creation, client centric servicer, and management in the animal healthcare sector. Its findings will be of value to practitioners responsible for managing service provision in the animal healthcare sector and academics interested in high involvement service provision.

Introduction

In the UK, the lives of humans and animals are inextricably intertwined. Some animals are farmed for food, some are used in sport and leisure and kept as companion animals. Animals that are farmed are the basis of substantial markets [1], animals that are used for sport are often of high genetic merit with individual animals worth millions of pounds, and the health benefits associated with living with animals are widely acknowledged [2-4].

Although Rötzmeier-Keuper et al. [6] conceptualise animal care services as being triadic (customer, provider and animal), in practice there are many types of animals, various clients, and a broad range of care providers. Service provision in the animal healthcare sector does not relate to veterinary care alone but extends to a diverse range of veterinary paraprofessional practitioners including animal musculoskeletal workers (phys-

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iotherapists, chiropractors and osteopaths), veterinary nurses, animal nutritionists, veterinary pharmacists, farriers and foot trimmers. The animal healthcare sector has been subject to significant change in recent times due to demographic adjustment, increased corporatisation, greater choice, access to information via social media, and the ease of client movement from one practitioner to another [7]. These factors have combined to create a business environment in which client loyalty can no longer be guaranteed and customers will change service providers repeatedly in the pursuit of higher service quality and better value. In the face of such change, the animal healthcare sector in North America has already recognised the role of the client in service provision [8-10], however, in the UK, while animal healthcare provision in general and veterinary care in particular is considered to be exemplary, client centric service provision has not received a similar level of attention.

Williams and Jordan [11] report that in the UK the animal healthcare sector has struggled to maintain pace with developing client behaviours and numerous commentators [12-15] now agree that there is an over-reliance on historically successful practitioner focused, rather than client-centric, models of service quality. Indeed, this issue has now been recognised as a limitation by the veterinary profession and argue that there is a need for research to understand the changing client behaviors and attitudes [16]. Hughes *et al.* [7], however, go further by postulating that actually there is now a need for the UK animal healthcare sector to reflect on service quality in the context of stakeholder needs.

This paper, therefore, acknowledges the paucity of knowledge regarding service quality in the UK animal healthcare sector and attempts to redress the situation. It reports a study that researched value co-creation as an element of service quality in the UK animal healthcare sector from the perspective of a range of stakeholders in order to develop a framework to aid service management. To begin, however, it is necessary to establish context by considering the literature relating to services and value co-creation.

Services

According to the American Marketing Association [17], products comprise tangible and intangible attributes and that where tangible characteristics dominate they are referred to as *goods* and where intangible characteristics dominate they are known as *services*. Although generalities are necessary to understand service quality and the co-creation of value, service encounters are actually unique personal experiences [18,19]. Grönroos [20] also points out that in many instances, services are instantly perishable and consumed at the exact same time that they are brought into existence, which means that they cannot be stored, transported, or traded.

Marketing theory historically subscribed to a Product Dominant Logic (PDL) that assumed that value was created by companies and sold to customers in the form of products [21]. In recent times, however, there has been widespread recognition of the collaborative role of the client in the exchange process and in particular in the generation of value and achievement of service quality. This alternative marketing theory has come to be known as Service Dominant Logic (SDL) and its client centric focus is now considered by many [22,23] to present a more relevant and inclusive business logic. In recent times SDL has been applied in industries ranging from electricity [24] to education [25], manufacturing [26] and digital networks [27].

SDL comprises 11 Foundational Premises (FPs) of service [28], however, the FP's can be grouped into five axioms, or self-evident truths [29]. The axioms provide more parsimonious understanding of the constructs underlying SDL (Table 1). Axiom 1 is that service is the fundamental basis of exchange based on the application of operant resources (knowledge and skills). Axiom 2 is that the customer is always co-creator of value and implies that service is inherently relational. This axiom contradicts traditional Product Dominant Logic that views the organisation as the creator of value. Axiom 3 is that all economic and social actors are resource integrators, and that resources come from a variety of sources including private sources (e.g. self, family, friends), market sources through economic exchange with others, or public sources (e.g. government or communal sources). Axiom 5 is that value is always uniquely and phenomenological determined by the beneficiary which reinforces the experiential nature of value and all market offerings are perceived and integrated differently by the consumer on each service-delivery occasion.

Table 1: The foundational premises and axioms of SDL

Axiom 1	FP1	Service is the fundamental basis of exchange.
	FP2	Indirect exchange masks the fundamental basis of exchange.
	FP3	Goods are a distribution mechanism for service provision.
	FP4	Operant resources are the fundamental source of strategic benefit.
	FP5	All economies are service economies.
Axiom 2	FP6	Value is co-created by multiple actors, always including the beneficiary.
	FP7	Actors cannot deliver value but can participate in the creation and offering of value propositions.
	FP8	A service-centred view is inherently customer oriented and relational.
Axiom 3	FP9	All social and economic actors are resource integrators.
Axiom 4	FP10	Value is always uniquely and phenomenologically determined by the beneficiary.
Axiom 5	FP11	Value co-creation is coordinated through actor-generated institutions and institutional arrangements.

Source: Adapted from Vargo and Lusch (2014)

Value co-creation

The journey to value co-creation in services started as organisations took responsibility for creating value [30] and gained conceptual momentum with the advent of Service Dominant Logic (SDL) [21]. With SDL the client is endogenous to the process and actively participates in the service provided [31,32]. This participation centres on cooperative interactions between the service provider and client that may take the form of collaborations, interpersonal engagement and reciprocity, which ultimately lead to the development of cohesive relationships, now understood to be fundament to veterinary care. Indeed, Lusch and Webster [33] suggest that all services are inherently relational in nature while others [34,35,36] propose that relationships are central to SDL and the co-creation of value.

The range of co-creation definitions and the considerable ambiguity around the concept is perhaps due both to its im-

portance and the complexity of client service interactions [37]. Although the consumer remains at the centre of the service process, there are two components of value creation in an exchange. The first is value co-production where a client *"takes over activities in the production chain"* [38] while the second is value co-creation that relates to end users *"experiences with products or services that can be of added value for a company"* [38]. Value co-creation serves as a means to maintain long-term relationships [31] and to build client loyalty [39]. However, value too can be difficult to define [40] because it is perceived differently by different stakeholders [22], it accumulates over time giving it a temporal dimension [41], and it can be either positive or negative [42]. While there is no definitive agreement on the matter a popular definition of value co-creation is *"the customers' creation of value in-use"* [42] and it is this that is the focus for this study.

Bharti *et al*. [37] have identified five interlocking pillars (see table 2) considered to be the bases, or key sources, of value co-creation. In the context of service provision in the animal healthcare sector the literature [8,9,10,43,44] suggests that *customer involvement*, *customer participation*, *trust*, *communication*, and *relationship* are particularly important variables.

Table 2: Pillars of Value Co-creation

Interactive environment	Resources	Co-production	Perceived benefits	Management structure
Interaction	Relationship	Customer involvement	Experiences	Top management approach
Relational norms	Capabilities	Customer	Customer learning	Corporate values
Exchange	Technology	participation	Value	Leadership
Information sharing	Network	Partnership & engagement	Expected benefits	Organisational agility
Communication & dialogue	Customer communities	Mutuality	Problem solving	
Encounter prototyping	Trust			
Customer role clarity				

(Source: Adapted from Bharti et al., 2015)

Customer Involvement and Participation

In modern human healthcare, patient *involvement* and *participation* are known to improve treatment compliance and outcomes [45-47]. Patient expectations, as well as concomitant changes in policy [48], now require the adoption of a collaborative approach to human health care provision that frequently takes the form of shared information and decision making [49]. Accordingly, value co-creation has become commonplace in human healthcare [50].

However, while client *involvement* and client *participation* would seem to be equally important in the provision of modern animal healthcare these factors have received only limited acknowledgement in the literature [44]. The evidence that does exist is largely anecdotal [51] but it appears to confirm that *involvement* and *participation* have important roles to play in the delivery of animal healthcare as well as being important determinants of service quality. Indeed, Timmins [2] reports that people who consider their pet to be part of the family (i.e. have a stronger Human Animal Bond) are more *involved* with their pet and are more likely to make more trips to the vet as well as being more willing to pay for veterinary care than those who don't.

Trust

In the context of human healthcare *trust* is conceptually difficult to define [52] there is no commonly shared understanding of what it means, what factors affect *trust*, and how it relates to other factors within health provision. However, Bharti *et al*. [37] indicate that *trust* is essential for collaborative working as well as the co-creation of value and so the importance of *trust* in the provision of human healthcare is well documented [53-55]. The foundations of trust lie in the expectation that one party will behave in a predictable and reliable manner [56] and, in the context of healthcare, trust develops out of relationship transparency and is shaped by communication quality and level of active interaction. Collaborative working and the co-creation of value in healthcare [57,56] results from three types of trust. The first type of trust is *companion trust* that is derived from a reciprocal exchange of goodwill and friendship. The second type is *competence trust* that is established through perceptions of others' ability to perform required tasks and is often linked to the reputation of the associated organisation to which the individual belongs. Finally, there is *commitment trust* that is associated with contractual arrangements or expectations between the client and the practitioner.

It seems reasonable to assume that *trust* is just as important in the animal healthcare sector as in the human healthcare sector. While animal healthcare clients wish to raise questions and concerns they also wish to be confident in the practitioners' professionalism and *trust* their overall decision-making capabilities. Recently, however, developments in the sector may have conspired to erode that trust [44]. Familiarity with switching allegiance in other areas of service provision, improvements in the maintenance of medical recording techniques, greater accessibility to practices, and increased public awareness of veterinary medicine due to a plethora of veterinary television programmes and ease of online searches, are all factors that are thought to have diminished practice loyalty which, in turn, has led to reduced *trust* [12]. Erosion of trust may be further encouraged by the rapid corporatisation of the veterinary industry [58] as clients may not been seen by the same veterinarian, do not have the opportunity to form the all-important one-to-one bond with a specific veterinarian and continuity of care is challenged [12].

Communication

According to some commentators [41,42,59] *communication* is an essential pre-requisite to value co-creation. As such, *communication* is recognised as an essential constituent of service quality in human healthcare [60] and it appears to fulfil the same role within animal healthcare [8]. A consultation provides an opportunity for particularly effective *communication* between the client and the veterinarian because it involves a two-way dialogue that permits open questioning which serves to promote client involvement in the decision-making process. This endorses the paradigmatic shift in the client-vet relationship from vet as *custodian* to vet and client as a *partnership* [9,10].

Furthermore, social media and the advent of on-line communities provide new opportunities for *communication* between veterinarians and clients [61]. However, there are still barriers to effective *communication* between the veterinarian and the client [62] and there is an increasing awareness that failures in *communication* are becoming a major source of client dissatisfaction [9,13], Veterinarians perceptions of client centred-ness not matching the clients view especially in bad news consultations [63], pressure on consultation time [64], the absence of respectful two-way *communication* [8], and a failure to involve all stakeholders are seen as particularly important communication issues in the provision of animal healthcare.

Relationships

At the heart of most *relationships* is *empathy* which may be defined as "*the ability to understand and share the feelings of another*" [65]. Empathy impacts the strength of a relationship, but in the healthcare context it may also determine clinical outcomes [66]. However, in some instances clinical practitioners have to put in place protective mechanisms, such as emotional detachment and distancing, to safeguard themselves from repeated exposure to upsetting scenarios but this is contrary to the patients' desire for true *empathy* [67]. This means that clinical *empathy* is more complex than everyday *empathy* and in certain situations it can adversely impact the client's feelings which can serve to reduce their perceptions of the veterinarian's expertise and trustworthiness, and ultimately lead to conflict and a breakdown in the *relationship* between the client and the practitioner [68].

Given the similarities with human healthcare it is reasonable to assume that *empathy* is also an important pre-requisite to effective communication and strong *relationships* in animal healthcare and that there is also potential for tension between the veterinarian or paraprofessional and client. Indeed, Shaw *et al*. [10] found that the ability to demonstrate *empathy*, particularly in problem visits (defined as complex, poor outcome or bad news consultations), is a highly desirable trait within the veterinary profession as it promotes communication that facilitates the building of *relationships* that aid client satisfaction.

The application of SDL in the animal health sector is conceptually new but there is some evidence [69] to suggest that service *quality* can be a useful predictor of client adherence to veterinarian treatment recommendations and outcomes. In turn, the benefits of improved treatment adherence include more responsible client use of medicines as well as enhanced animal health, welfare, and productive performance.

It appears, therefore, that while SDL and value co-creation are acknowledged as playing an important role in service provision in the analogous human healthcare sectors, these concepts have not been applied, nor researched, widely in animal health services. In order to address the situation research was conducted that used the prism of SDL and had the aim of investigating the nature of value co-creation and its influence on service quality in order to develop a framework for its management in the UK animal healthcare sector.

Method

The study on which this paper is based comprised two phases. Little was known about the dimensions of value co-creation in the UK animal healthcare sector so Phase One was qualitative in nature and took the form of exploratory depth interviews with veterinarians, paraprofessionals and animal health clients (n=13). The transcripts of the depth interviews were analysed in NVivo (version 11) using Grounded Theory principles, and Thematic Analysis techniques. Phase One generated a list of client-practitioner interactions that constituted value co-creation opportunities but also indicated that while the respondents were comfortable expressing a view on service satisfaction they were unable to distinguish between service quality and technical quality of the service, thus service *satisfaction* was used as a proxy for service quality in Phase Two.

Phase Two of this study was quantitative in nature and based on a survey of veterinary stakeholders comprising veterinarians, paraprofessionals, and clients. The survey instrument comprised Likert scale statements. Most were based on the client-practitioner interactions that constitute value co-creation opportunities identified in Phase One but these were supplemented by a statement relating to service *satisfaction* that was used as a measure of the success of co-creation. Various categorical questions were included in the questionnaire. The questionnaire was pre-tested with sector experts and clients to ensure respondent understanding and comprehension but the pre-test data was not used in the final analysis. The survey was completed in face-to-face intercept interviews at a range of animal related events (see Table 3) and it produced 663 useable responses comprising 293 (44%) practitioners and 370 (56%) clients.

Table 3: Example survey venues

Group	Sub-population	Examples of data collection venues
Clients	Companion animal	Dog training classes
	Equine leisure	Competitions and shows
	Equine professional	Competitive events
	Farm animal intensive	Livestock Markets & The Livestock Event
	Farm animal extensive	Livestock Markets & The Livestock Event

The results of the factor analysis are presented in Table 4. This analysis suggests that there are three factors that together account for 64.72% of the variance in the data. A review of the underpinning variables allows these factors to be labelled *Interaction, Responsiveness,* and *Access. Interaction* is the most prominent factor accounting for 44.37% of the variance in the data and possessing an eigenvalue of 4.88, *Responsiveness* is the next most prominent factor accounting for 11.26% of the variance in the data and possessing an eigenvalue of 1.24, and *Access is the third factor* accounting for 9.09% of the variance in the data and possessing an eigenvalue of 1.00.

Table 4: Underlying elements of co-creation.

Themes/Factors	Factor loading	% Responses				Mean	sd
		--	-	Neutral	++		
F1 Interaction α = .854							
Communication at the right level	.854	0	2	9	52	4.4	.78
Clients understand	.842	0	1	7	54	4.5	.64
Good client-professional relationship	.841	0	1	9	57	4.5	.74
Time for compassion	.831	0	2	13	51	4.4	.77
Health plans provided	.511	0	8	24	40	4.0	1.0
Rapport development	.501	0	0	1	60	4.6	5.2
F2 Responsiveness α = .699							
Contact by email or text	.859	4	12	16	32	3.8	1.2
Continuity of care	.615	3	4	14	47	4.3	.85
Prompt response to calls	.516	1	7	19	25	4.0	.99
F3 Access α = .569							
Location importance	.846	1	8	13	39	4.1	.98
Expect out of hours care	.722	2	8	20	26	3.8	1.0
Summary statistics Quality		0	0	12	34	4.2	.65
Satisfaction		0	2	9	48	4.4	.74
	F1	F2	F3				
Eigenvalues	4.88	1.24	1.00				
% of variance explained	44.37	11.26	9.09				
Cumulative % of variance explained	44.37	55.63	64.72				

n=663, categories: ++ strongly agree; + slightly agree; - slightly disagree; --strongly disagree

Table 5: The impact of co-creation on satisfaction: Multiple Regression Analysis.

Co-creation factors		Beta	T	Sig
F1	**Interaction**	.54	12.16	.000
F2	**Responsiveness**	.26	5.72	.000
F3	**Access**	.04	.978	.329

Interaction variables	Beta	T	Sig
Client-professional relationship	.27	4.51	.000
Health plans provided	.17	3.86	.000
Time for compassion	.23	3.80	.000
Rapport development	.07	1.84	.067
Communication level	.10	1.80	.072
Clients understand	.06	1.02	.307

Model Summary			
R	R^2	Adjusted R^2	Std error of estimate
.745	.555	.551	.497

Analysis of Variance (ANOVA)					
	Sum of squares	df	Mean Square	F	Sig
Regression	112.1	3	37.3	151.10	.000
Residual	90.3	364	.247		
Total	202.2	367			

Model Summary			
R	R^2	Adjusted R^2	Std error of estimate
.726	.527	.519	.517

Analysis of Variance (ANOVA)					
	Sum of squares	df	Mean Square	F	Sig
Regression	103.5	6	17.25	64.65	.000
Residual	92.9	348	.267		
Total	196.4	354			

Responsiveness variables	Beta	T	Sig
Continuity of care	.51	10.51	.000
Prompt response to calls	.17	3.60	.000
Contact by email or text	.12	2.54	.011

Access variables	Beta	T	Sig
Location	.27	5.04	.000
Out of hours care	.12	2.17	.031

Model Summary			
R	R^2	Adjusted R^2	Std error of estimate
.670	.448	.443	.555

Analysis of Variance (ANOVA)					
	Sum of squares	df	Mean Square	F	Sig
Regression	85.24	3	28.41	92.09	.000
Residual	104.90	340	.31		
Total	190.14	343			

Model Summary			
R	R^2	Adjusted R^2	Std error of estimate
.328	.107	.102	.712

Analysis of Variance (ANOVA)					
	Sum of squares	df	Mean Square	F	Sig
Regression	20.63	2	10.31	20.321	.000
Residual	171.53	338	.507		
Total	192.16	340			

n=663; Sample: Clients & Practitioners; Dependent Variable: Satisfaction.

Subsequently, regression analysis was used to understand the impact of co-creation on *satisfaction* and the results are presented in Table 5. The *Interaction* and *Responsiveness* factors emerged as having a significant association with *satisfaction*, though *Access* did not. To understand the relationships between co-creation and *satisfaction better*, the data relating to *satisfaction* were regressed on to the individual variables comprising each factor. It was then determined that the *client-professional relationship*, the *provision of health plans* and *making time for compassion* were significant predictors of *Interaction*. Similarly, it was determined that *continuity of care* and *prompt response to calls* were significant predictors of *Responsiveness* while *contact by email or text* was not. In respect of *Access,* whilst *location* was associated with a good service outcome; *out-of-hours service* was not.

Discussion

The aim of this research was to investigate the nature of value co-creation and its influence on service quality in order to develop a framework for its management in the UK animal healthcare sector. This was achieved through undertaking first qualitative research to identify the components of value co-creation in animal healthcare service provision and then conducting quantitative research in the form of a survey to quantify the relationships between the variables. The data was subsequently reduced using factor analysis to identify the three key factors of *Interaction*, *Responsiveness,* and *Access* that can be presented as a framework (see Figure 1). Finally, and following an approach used by Voorberg *et al.* [38] and Frow *et al.* [74], multiple regression analysis was used to examine the relationship between *satisfaction*, used as a proxy for service quality, and *Interaction, Responsiveness,* and *Access* as well as the underpinning variables.

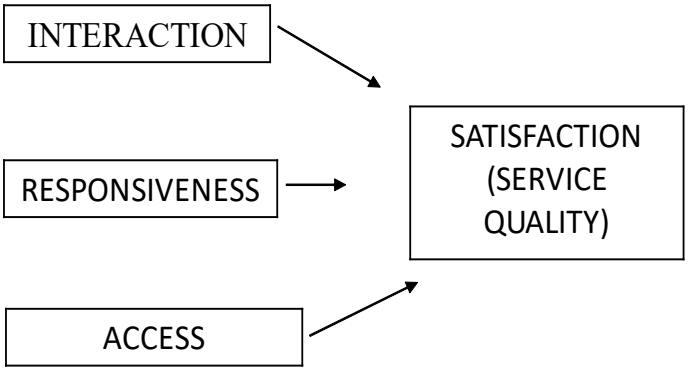

Figure 1: A Framework of Value Co-Creation in the Animal Healthcare Sector.

According to Fließ and Kleinaltenkamp [75], service exchange requires a contribution from both client and practitioner, however, Hughes *et al*. [7] argue that in the animal healthcare sector the *Interaction* between the veterinarian and the client lies at the core of service delivery and that the relationship is so important that it should be seen as a partnership. These relationships are based on mutual trust [76] *Interaction* is very much concerned with the co-production of the service [31,42]. This study found that *Interaction* is a significant factor in the co-creation process in the animal healthcare sector in the UK would seem to corroborate the earlier client: Practitioner relationship studies. However, the current study goes further because by examining the component variables it is possible to confirm that *Communication* is, in turn, an important component of *Interaction* and that it probably refers to the provision of information that the *client understands*, *personalised healthcare plans*, *compassion* and *rapport*. It is also possible to conjecture that *Interaction* and *Communication* are key aspects of the *relationship* between the veterinarian and the client that then impact client satisfaction and overall service quality.

Responsiveness is primarily concerned with *continuity of care* and receiving a *prompt response* to enquiries while to a lesser extent it is about the range of media (*email or text*) through which communication occurs. Many clients wish to see the same professional whenever they visit, a service component known to be associated with patient satisfaction in human healthcare [46,47,77]. Animal healthcare is different to human healthcare due to the caregiver component but it is considered that the general principles are similar. Animal healthcare clients also want a reaction from the service provider that is quick and understandable as clients have been through a decision-making process to arrive at the point where they believe their animal needs attention.

In respect of *Access,* it is *location* that is important relative to *out-of-hours care*, which may be explained by the expanded number of out-of-hours service providers now available or the assumption that out-of-hours service is now an expected aspect of animal healthcare. The majority of consultations in a small animal practice are at the surgery whilst farm and equine services tend to provide continuous access through ambulatory practice, and so this finding has anecdotal resonance. The key issue here is that the surgery needs to be a place that is convenient to the client.

By being cognisant that the key issues in the co-creation of the service are *Interaction*, *Responsiveness* and *Access* and that these are, in turn, based on numerous underlying variables (see Table 6) animal healthcare providers can plan and deliver a better standard of service.

Table 6: Value Co-creation in Animal Healthcare Services

Interaction	Responsiveness	Access
Level 1 **Direct association with satisfaction and quality**		
Client-professional relationship Health plans provided Time for compassion	Continuity of care Prompt response to calls	Location
Level 2 **Important to clients, indirect influence on satisfaction and quality**		
Rapport development Communication level Clients understand	Contact by email or text	Out of hours care

Conclusion

Although the research reported in this paper embraced qualitative and quantitative techniques, used a large sample for the survey, and involved the key client and provider stakeholders which renders the findings both valid and reliable. This study found that the key aspects of service provision in the UK animal healthcare sector are *Interaction, Responsiveness* and *Access,* and that these factors are based on a number of underpinning variables that provide insight into value co-creation. The findings make an original contribution to knowledge that may well have commercial value to the management of veterinary practices and the providers of allied services, and concurrent

provision of veterinary care. It also has theoretical value to academics interested in high involvement service provision. There is potential for further research into service provision in the animal healthcare sector using qualitative techniques to investigate the operation of the themes and underpinning variables in greater depth as well as using quantitative techniques to investigate value co-creation from the perspectives of the different stakeholders that, in turn, might reveal opportunities for market segmentation.

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References

1. Department For Environment Food And Rural Affairs (DEFRA). Structure of the agricultural industry in England and the UK. 2109.
2. Timmins R. The contribution of animals to human well-being: A veterinary family practice perspective. Journal of Veterinary Medical Education. 2008; 35; 540-544.
3. Haire MO. Companion animals and human health: Benefits, challenges and the road ahead. Journal of Veterinary Behaviour, Clinical Applications and Research. 2010; 5: 226-234.
4. Friedmann E, Son H. The Human–Companion animal bond: How humans benefit. Veterinary Clinics of North America: Small Animal Practice. 2009; 39: 293-326.
5. Friedmann E, Krause-Parello CA. Companion animals and human health: benefits, challenges, and the road ahead for human-animal interaction. Revue Scientifique et Technique International Office of Epizootics. 2018; 37; 71-82.
6. Rötzmeier-Keuper J, Hendricks J, Wunderlich NV, Schmitz G. Triadic relationships in the context of services for animal companions. Journal of Business Research. 2018; 85: 295-303.
7. Hughes K, Rhind SM, Mossop L, Cobb K, Morley E, et al. Care about my animal, know your stuff and take me seriously: United Kingdom and Australian clients' views on the capabilities most important in their veterinarians. Veterinary Record. 2008; 183; 534.
8. Coe J, Adams C, Bonnett B. A focus group study of veterinarians' and pet owners' perceptions of veterinarian-client communication in companion animal practice. Journal of American Veterinary Medicine Association. 2008; 233: 1072-1080.
9. Shaw JR, Adams CL, Bonnett B, Larson S. Veterinarian-client-patient communication during wellness appointments versus appointments related to a health problem in companion animal practice. Journal of American Veterinary Medicine Association. 2008; 233; 1576-1586.
10. Shaw JR, Adams CL, Bonnett B, Larson S, Roter D. Veterinarian satisfaction with companion animal visits. Journal of American Veterinary Medicine Association. 2012; 240: 832-841.
11. Williams S, Jordan H. Veterinary futures: The drivers of change: A review of the literature. Vet Futures. 2015.
12. Lee D. Marketing veterinary services. Veterinary Clinics of North America: Small Animal Practice. 2006; 36: 281-295.
13. Lowe P. Unlocking Potential: A Report on Veterinary Expertise in Food Animal Production. London: Department of Environment, Food and Rural Affairs (DEFRA). 2009.
14. Lowe P. A public or private profession? Veterinary Record. 2010; 166: 211-212.
15. Statham J, Green M. Cattle veterinary services in a changing world. Veterinary Record. 2015; 176: 276-280.
16. Pyatt AZ, Walley K, Wright GH, Bleach ECL. Co-Produced Care in Veterinary Services: A Qualitative Study of UK Stakeholders' Perspectives. Vet. Sci. 2020; 7: 149.
17. American Marketing Association. Common Language Marketing Dictionary: The Global Resource for Defining Marketing Terms. 2020.
18. Wisniewski M. Using SERVQUAL to assess customer satisfaction with public service sectors. Managing Service Quality. 2001; 11: 380-388.
19. Lisch R. Measuring Service Performance: Practical Research for Better Quality. Farnham, Surrey: Gower Publishing Ltd. 2014.
20. Grönroos C. Adopting a service logic for marketing. Marketing Theory. 2006; 6: 395-417.
21. Vargo SL, Lusch RF. Evolving to a New Dominant Logic for Marketing. Journal of Marketing. 2004; 68: 1-17.
22. Lusch RF, Vargo SL., O'Brien M. Competing through service: Insights from service-dominant logic. Journal of Retailing. 2007; 83: 5-18.
23. Vargo SL, Lusch RF. Why "service"? Journal of the Academy of Marketing Science. 2008a; 36: 25-38.
24. Sadjadi EN. Service dominant logic as a foundation for business model innovation in smart grids. The Electricity Journal. 2020; 33: 106737.
25. Diaz-Mendez M, Paredes MR, Saren M. Improving society by improving education through service-dominant logic: Reframing the role of students in higher education. Sustainability. 2019; 11: 5292.
26. Goduscheit RC, Faullant R. Paths toward radical service innovation in manufacturing companies – A service dominant logic perspective. Journal of Product Innovation Management. 2018; 35: 701-719.
27. Blaschke M, Riss U, Haki K, Aier S. Design principles for digital value co-creation networks: a service dominant logic perspective. Electronic Markets. 2019; 29: 443-472.
28. Vargo SL, Lusch RF. Inversions of service-dominant logic. Marketing Theory. 2014; 14: 239-248.
29. O'Shaughnessy J, O'Shaughnessy NJ. Service-dominant logic: A rejoinder to Lusch and Vargo's reply. European Journal of Marketing. 2011; 45: 1310-1318.
30. Kolter P. A generic concept of marketing. Journal of Marketing. 1972; 36: 46-54.
31. Lusch RF, Vargo SL. Service-dominant logic: Reactions, reflections and refinements. Marketing Theory. 2006; 6: 281-288.
32. Vargo SL, Lusch, RL. Service-dominant logic: Continuing the evolution. Journal of the Academy of Marketing Science. 2008b; 36: 1-10.
33. Lusch RF, Webster JFE. A stakeholder-unifying, co-creation philosophy for marketing. Journal of Macromarketing. 2011; 31: 129-134.
34. Gummesson E. Implementation Requires a Relationship Marketing Paradigm. Journal of the Academy of Marketing Science. 1998; 26: 242-249.
35. Grönroos C. Service Management and Marketing, Chichester: Wiley. 2000.

36. FitzPatrick M., Varey R., Grönroos C, Davey J. Relationality in the service logic of value creation. Journal of Services Marketing. 2015; 29; 463-471.

37. Bharti K, Agrawal R, Sharma V. Value co-creation: Literature review and proposed conceptual framework. International Journal of Market Research. 2015; 57: 571-604.

38. Voorberg WH, Bekkers VJJM, Tummers LG. A Systematic Review of Co-Creation and Co-Production: Embarking on the social innovation journey. Public Management Review. 2015; 17: 1333-1357.

39. Leppiman A, Same S. Experience marketing: Conceptual insights and the difference from experiential marketing. Regional Business and Socio-Economic Development. 2011; 5: 240-258.

40. Carù A, Cova B. Revisiting consumption experience: A more humble but complete view of the concept. Marketing Theory. 2003; 3: 267-286.

41. Grönroos C. Service logic revisited: Who creates value? And who co-creates? European Business Review. 2008; 20: 298-314.

42. Grönroos C, Voima P. Critical service logic: Making sense of value creation and co-creation. Journal of the Academy of Marketing Science. 2013; 41: 133-150.

43. Coe J, Adams C, Bonnett, B. A focus group study of veterinarians' and pet owners' perceptions of the monetary aspects of veterinary care. Journal of the American Veterinary Medical Association. 2007; 231: 1510-1518.

44. Grand J, Lloyd J, Iigen D, Abood S, Sonea I. A measure of and predictors for veterinarian trust developed with veterinary students in a simulated companion animal practice. Journal of the American Veterinary Medical Association. 2013; 242; 322-334.

45. Safran D, Montgomery J, Chang H, Murphy J, Rogers W. Switching doctors; predictors of voluntary disenrollment from a primary physician's practice. Journal of Family Practice. 2001; 50: 130-136.

46. Cabana M, Jee SA. Does continuity of care improve patient outcomes?. Journal of Family Practice. 2004; 53: 974-980.

47. Gray DJP, Sidaway-Lee K, White E. Continuity of care with doctors-A matter of life and death? A systematic review of continuity of care and mortality. British Medical Journal Open. 2018; 8: 1-12.

48. Martin G, Finn R. Patients as team members: Opportunities, challenges and paradoxes of including patients in multi-professional healthcare teams. Sociology of Health and Illness. 2011; 33: 1050-1065.

49. Chan K, Yim C, Is customer participation in value creation a double-edged sword? Evidence from professional financial services across cultures. Journal of Marketing. 2010; 73: 48-64.

50. Elg M, Engström J, Witell L, Poksinska B. Co-creation and learning in health-care service development. Journal of Service Management. 2012; 23: 328-343.

51. American Animal Hospital Association. Compliance: Taking quality care to the next level. A report of the American Animal Hospital Association. 2009.

52. Hall M, Dugan E, Zheng B, Mishra A. Trust in physicians and medical institutions: What is it, can it be measured, and does it matter? The Milbank Quarterly. 2001; 79, 4, 613-639.

53. Pearson S, Raeke L. Patients' trust in physicians: Many theories, few measures, and little data. Journal of General Intern Medicine. 2000; 15: 509-513.

54. Trachtenburg F, Dugan E, Hall MA. How patients' trust relates to their involvement in medical care. Journal of Family Practice. 2005; 54: 344-352.

55. Pilgrim G, Tomasini F, Vassilev I. Examining trust in healthcare: A multidisciplinary perspective. Houndmills, Basingstoke: Palgrave, Macmillan. 2011.

56. Tomlinson F. Idealistic and pragmatic versions of the discourse of partnership. Organization Studies. 2005; 26: 1169-1188.

57. Newell S, Swan J. Trust and inter-organizational networking. Human Relations. 2000; 53: 1287-1328.

58. Waters A. What will the future bring? Veterinary Record. 2017; 180: 340.

59. Koelling M, Neyer A, Moeslein K. Strategies towards innovation services: Findings from the German service landscape. Services Industries Journal. 2010; 30: 609-620.

60. Silverman J, Kurtz S, Draper J. Skills for Communicating with Patients. Oxford: Radcliffe Publishing. 2005.

61. Brown J, Broderick A, Lee N. Word of mouth communication within online communities: Conceptualizing the online social network. Journal of Interactive Marketing. 2007; 21: 2-29.

62. Brown J, Silverman J. The current and future market for veterinarians and veterinary medical services in the United States. Journal of American Veterinary Medicine Association. 1999; 215; 161-183.

63. Nogueira Borden LJ, Adams CL, Bonnett BN, Ribble CS, Shaw JR. Comparison of veterinarian and standardized client perceptions of communication during euthanasia discussions. Journal of the American Veterinary Medical Association. 2019; 254: 1073-1085.

64. Belshaw Z, Robinson N, Dean R, Brennan, M. I always feel like I have to rush…. Pet owner and small animal veterinary surgeons reflections on time during preventative healthcare consultations in the United Kingdom. Veterinary Sciences. 2018; 5: 1-11.

65. Oxford English Dictionary. https://en.oxforddictionaries.com/PEREIRA Accessed 23 April 2020. 2017.

66. Neuman M, Bensing J, Mercer S, Ernstmann N, Ommen O, Pfaff, H. Analysing the 'nature' and 'specific effectiveness' of clinical empathy: A theoretical overview and contribution towards a theory based research agenda. Patient Education and Counseling. 2009; 74: 339-346.

67. Halpern J. What is clinical empathy? Journal of General Internal Medicine. 2003; 18: 670-674.

68. Tuisku OA, Ilves MK, Lylykangas JK, Surakka VV, Ainasoja M, et al. Emotional responses of clients to veterinarian communication style during a vaccination visit in companion animal practice, Journal of the American Veterinary Medical Association. 2018; 252: 1120-1132.

69. Ritter C, Adams CL, Kelton DF, Barkema HW. Factors associated with dairy farmers' satisfaction and preparedness to adopt recommendations after veterinary herd health visits. Journal of Dairy Science. 2019; 102: 4280-4293.

70. Tabachnick B, Fidell L. Using Multivariate Statistics. New York: Allyn and Bacon. 2007.

71. Fabrigar LR, Wegener DU. Exploratory Factor Analysis. New York, USA: Oxford University Press. 2012.

72. Yong A, Pearce S. A beginner's guide to factor analysis: Focusing on exploratory factor analysis. Tutorials in Quantitative Methods for Psychology. 2013; 9: 79-94.

73. Comrey A, Lee H. A First Course in Factor Analysis. Hillsdale, NJ: Lawrence Erlbaum Associates. 1992.

74. Frow P, Mccoll-Kennedy JR, Payne A. Co-creation practices: Their role in shaping a health care ecosystem. Industrial Marketing Management. 2016; 56: 24-39.

75. Fließ S, Kleinaltenkamp M. Blueprinting the service company: managing service processes efficiently. Journal of Business Research. 2004; 57: 392-404.

76. Ruston A, Shortall O, Green M, Brennan M, Wapenaar W, et al. Challenges facing the farm animal veterinary profession in England: A qualitative study of veterinarians' perceptions and responses. Preventive Veterinary Medicine. 2016; 127: 84-93.

77. Baker R, Streatfield J. What type of general practice do patients prefer? Exploration of practice characteristics influencing patient satisfaction. British Journal of General Practice. 1995; 45: 654–659.